D.A.T.A.BOOK OF DISCONTINUED TRANSISTORS

SUMMER 1969

5th EDITION

THIS D.A.T.A.B O O K VALID UNTIL SUMMER 1970 EDITION

D.A.T.A. INC. REFERENCE STANDARDS FOR INDUSTRY

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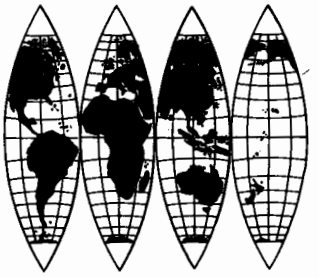

D.A.T.A. BOOK OF DISCONTINUED TRANSISTORS

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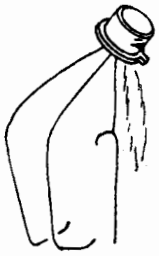

INFORMATION GUIDELINES FOR USE WITH DISCONTINUED TRANSISTOR

- When you search for information refer to any of the 5 Known/Unknown situations below. Follow the outlined procedure to acquire maximum information.
- For outline drawing — refer to your current Transistor D.A.T.A.BOOK (Section 15).
- In each case below — start with the type number of the discontinued device:

You Know **Type Number** and You Need

→ **Manufacturer's address**

A. Turn to type number cross index section 1.

B. The manufacturers' codes are shown for each type number.

C. Manufacturers' names in code order are listed at the back of the D.A.T.A.BOOK, together with current or last known address.

D. In the event the name and/or code of a manufacturer is changed, the most recent manufacturer's code is given.

→ **Its characteristics**

A. Turn to type number cross index section 1.

B. Opposite each type number is the page and line number.

C. Turn to pertinent page; the line numbers are listed in sequence.

D. In addition to the electrical data, the drawing referenced at end of the technical data line will be found in your current Transistor D.A.T.A.BOOK.

→ **Current equivalents or similar types**

A. Follow through second situation.

B. Turn to corresponding section of your current Transistor D.A.T.A.BOOK.

C. Survey characteristics of types to determine which type number might fill your need.

D. To ascertain manufacturer of suitable type, see first situation and follow through in current Transistor D.A.T.A.BOOK.

→ **Case and dimensions**

A. Follow through 2nd situation.

B. The drawing number will be found in your current Transistor D.A.T.A.BOOK in drawing number order.

→ **Type number (non-JEDEC) not included in technical sections — what happened to it?**

A. Turn to type number cross index section.

B. Note if manufacturer type number has been replaced by a JEDEC number, and a symbol (CUR) current or (Obs) obsolete will tell you if the data can be found in the Transistor D.A.T.A.BOOK or the Discontinued Transistor D.A.T.A.BOOK.

C. If the JEDEC number is obsolete, refer to that number in the index to locate its technical data.

D. If the JEDEC number is current, technical details will be found in the current edition of the Transistor D.A.T.A.BOOK.

E. If type number you seek is not included in either D.A.T.A.BOOK, it is a private number.

TABLE OF CONTENTS

TECHNICAL DATA SECTIONS

THINGS YOU'LL WANT TO KNOW..

Purpose

This DISCONTINUED TRANSISTOR D.A.T.A.BOOK is designed to provide comprehensive, technical reference information on transistors which are no longer being manufactured. While there are still quite a few discontinued transistor types on which data have not yet been released by the manufacturers, it is hoped you will be able to resolve most of your search or replacement problems with this D.A.T.A.BOOK.

Scope

6543 Discontinued Transistors previously produced by manufacturers throughout the free world are represented in this D.A.T.A.BOOK — including all discontinued types which have appeared, at any time, in the TRANSISTOR D.A.T.A.BOOK, and some previously unpublicized types, the data on which manufacturers have recently made available to us.

Solving Your Problem

With this D.A.T.A.BOOK you can proceed from a discontinued transistor type number to its characteristics — then to the corresponding technical section of the current TRANSISTOR D.A.T.A.BOOK to locate presently manufactured types having similar characteristics.

Or, if you need only information on who manufactured a discontinued type number, the answer is at your fingertips in the Type No. Cross Index of this D.A.T.A.BOOK.

Organization & Use

Type No. Index

1. In type number order, this index indicates the codes of all previous manufacturers (interpreted at end of D.A.T.A.BOOK) of each type number, as well as the page and line numbers where the technical data will be found, EXCEPT . . .

2. Manufacturer type numbers which have been replaced by JEDEC numbers indicate that JEDEC type number and whether current (CUR) or obsolete (OBS):

   a. If the JEDEC number is obsolete, you refer to that number in the index to locate its technical data;

   b. If the JEDEC number is current, technical details will be found in the current edition of the TRANSISTOR D.A.T.A.BOOK.

NOTE: Where "house" type numbers are shown as having been replaced by JEDEC numbers, it should be borne in mind that the characteristics of the JEDEC type may not exactly match those of the prototype "house" number. Usually, however, the JEDEC type number can be considered a direct replacement for the "house" type.

Technical Data Sections

1. As outlined in the Table of Contents of this D.A.T.A.BOOK, there are 12 technical sections which coincide with those in the current TRANSISTOR D.A.T.A.BOOK.

2. Within each technical section, type numbers, are listed in order of characteristics which coincide with those in the current TRANSISTOR D.A.T.A.BOOK.

3. As a practical means of providing more complete information in the technical sections, symbols and codes are utilized in column headings and in the columns themselves. Explanations of these symbols and codes are given on pages **vi** and **vii** of this D.A.T.A.BOOK.

Manufacturers and Their Addresses

1. In order of the letter codes, as employed in the Type No. Index, the names and addresses of the discontinued transistor manufacturers are set forth to assist you in any in-depth search you might find necessary.

2. Manufacturer addresses shown are the most recent ones recorded in our files. Some of the manufacturers, however, may be completely out of business; others may be in business but not in transistor production; and others are currently producing transistors.

3. In the event the name and/or code of a manufacturer changed, or a manufacturer's transistor line was taken over by another manufacturer, the most recent manufacturer code, name, and address are given. Such changes are indicated, as illustrated by the following example:

   CLE — Clevite — see ITT

Summary

The DISCONTINUED TRANSISTOR D.A.T.A.BOOK will be published in complete editions once a year, incorporating all types which have been discontinued since the last edition. Continuing effort will also be made to secure additional discontinued transistor types, along with their technical data, which heretofore had not been publicized by the manufacturers.

Updating

Your copy of this DISCONTINUED TRANSISTOR D.A.T.A.BOOK, in combination with a subscription to the always-current TRANSISTOR D.A.T.A.BOOK, will go a long way toward making you one of the best-informed "transistor men" in the electronics industry.

Every effort has been made to ensure the accuracy and completeness of this DISCONTINUED TRANSISTOR D.A.T.A.BOOK; however the publisher cannot be held responsible for, or guarantee against the possibility of, error or omission.

EXPLANATIONS OF SYMBOLS AND CODES EMPLOYED IN THIS D.A.T.A.BOOK

(for emergency use if separate Symbol/Code Interpreter is misplaced)

TYPE No. (All Sections)

△ ☑ % Indicators of separate manufacturers producing same type number (non-JEDEC) whose characteristics are not the same. This manufacturer-identifying symbol (assigned by D.A.T.A.) is an integral part of the type number (in Type No. Cross Index, Technical Data Sections, and Manufacturers and Their Types Section) to avoid the possibility of confusing the device of one manufacturer with the devices of the others.

Example . . .	Type No.	Manufacturer	Description
	S35△	SELB	Sect. 5
	S35☑	ROSG	Sect. 13
	S35%	TII	Sect. 8

For SECTION 1 — TYPE NO. CROSS INDEX
Preceding Manufacturer Code

△ — Registered with JEDEC by this manufacturer

For SECTIONS 2 - 11 — TECHNICAL DATA SECTIONS
Arranged alphabetically by governing column headings without regard to section number

GENERAL NOTES: (1) When letters representing units follow a value in a column of a technical section, the units shown in the column heading do not apply.
(2) All values in this D.A.T.A.BOOK are typical and given at 25°C ambient unless otherwise indicated.

- **Bias — I_C**
  ϕ - I_B △ - I_E
- **Bias — I_E**
  ϕ - I_C △ - I_B
- **Bias — V_{CB}**
  ϕ - V_{CE}
- **BV_{CBO}**
  † - At Temp. 25° C Case
- **BV_{CEO}**
  # - BV_{CEX} or punch-through § - BV_{CER} ☑ - $BV_{ceo(sus)}$
  ϕ - BV_{CES} * - Pulsed
- **BV_{DDS}**
  △ - BV_{DSO} † - BV_{DSX}
- **BV_{GSS}**
  △ - BV_{DGO}
- **BV_{EBO}**
  † - At Temp. 25° C Case
- **C_{ob}**
  ☑ - Maximum $ — C_{cb} § — C_{iss} (FET's only) † - C_{re}
- **Derate**
  ∅ - With infinite heat sink
- **Description**
  I_{off} - Offset current
  I_p - Peak current
  I_{SR} - Intrinsic standoff ratio
  I_v - Valley current
  R_{b1b2} - Interbase resistance
  r_d - Dynamic resistance
  V_{GD} - Gate-to-drain voltage
  V_{off} - Offset voltage
  V_{PO} - Pinchoff voltage
- **Drawing No.** → • for Sections 6 and 7; ☑ - Phototransistor Device; △ - Tetrode Device; % - Composite type
- **$f\alpha_b$**
  † - $f\alpha_e$
  § - Gain bandwidth product (f_T)
  * - Maximum frequency of oscillation
  ϕ - Figure of merit (frequency for unity power gain)
  △ - Minimum ☑ — Maximum
- **$f\alpha_e$**
  † - $f\alpha_b$
  § - Gain bandwidth product (f_T)
  * - Maximum frequency of oscillation
  ϕ - Figure of merit (frequency for unity power gain)
  △ - Minimum ☑ — Maximum
- **gfs**
  △ - Typical † - Pulsed % - High Frequency (y_{fs})
- **h_{FE}**
  † - h_{fe} △ - Minimum § — Y_{fs} in millimho (FET's only) Bias values are V_{DS} & I_D
  # - Pulsed ☑ - Maximum
  ϕ - Typical * - Available to selected range narrower than indicated
- **h_{fe}**
  † - h_{FE} △ - Minimum * - Available in selected ranges.
  # - Pulsed ☑ - Maximum § - h_{FC}
  § — Y_{fs} in millimho (FET's only) Bias values are V_{DS} & I_D
- **h_{oe}, h_{ie}, h_{re}**
  b - h parameters are h_{ob}, h_{ib}, h_{rb} ☑ - Maximum
- **I_B** ϕ - I_E # - Pulsed
- **I_C** ϕ - I_E † - At Temp. 25°C Case # - Pulsed or Peak
- **I_E** ϕ - I_C △ - I_B
- **Lead Code**
  See Lead Code Identification Guide on inside back cover of Interpreter and at end of Section 13.
- **Line No.**
  ▼ - New type
  # - Non-JEDEC type manufactured outside U.S.A. ◆ - Revised specifications
- **Material**
  Ge - Germanium Si - Silicon
- **Max. Coll. Diss.**
  ϕ - With infinite heat sink
  Following symbols indicate temperature at which derating starts:
  † - 40°C ☑ - 60°C ♦ - 80°C # - 50°C
  * - 45°C § - 70°C △ — Pulsed $ - 100°C
  △ - 85°C for Sec 2, 3, 4, 5
- **Max. C_{is}**
  # - C_{iss} (output shorted) * - Typical
  △ - C_{dgs} ☑ - C_{dss}
  † - C_{gss} ∅ - C_{dgo}
  % - Not given at test conditions
- **Max. Delay Time**
  $ - Charge storage time constant ϕ - $T_{ON} = t_r + t_d$
  ▼ - Stored base charge — picocoulomb † - Typical value
  ◆ - Total switching time
- **Max. Device Dissipation**
  △ - With Infinite Heat Sink † - Above 25°C; For additional information consult mfr.

- **Max. Fall Time**
  ϕ - $T_{OFF} = t_s + t_f$ * - $T_{on} + T_{off} = td + tr + tf + ts$
  † - Typical value

- **Max. I_{CBO}**
  ϕ - At V_{CB} < Max. V_{CB} (see mfr. spec.)
  # - I_{CEX} ♦ - At Temp. 25°C Case
  § - I_{CES} △ - I_{CEO}
  † - At temp. > 25°C * - I_{CER}

- **Max. I_D (on)**
  △ - I_{DSS} @ $V_{GS} = 0$ and $V_{DS} \approx V_P$ # - Minimum
  ∅ - $V_{GS} > 0$ % - Pulsed
  * - Typical

- **Max. I_{GSS}**
  △ - I_{GDO}

- **Max. Rise Time**
  $ - Charge storage time constant ϕ - $T_{ON} = t_r + t_d$
  ▼ - Stored base charge — picocoulomb † - Typical value
  ◆ - Total switching time

- **Max. Sat. Res.**
  ▼ - Typical value § — R_{on} (FET's only) # — Pulsed

- **Max. Storage Time**
  ϕ - $T_{OFF} = t_s + t_f$ * - $T_{on} + T_{off} = td + tr + tf + ts$
  † - Typical value

- **Max. Temp.**
  * - 50-65°C ÷ - 130- 135°C A - Ambient
  ϕ - 70-80°C $ - 140-165°C C - Case
  # - 85-100°C § - 170-200°C J - Junction
  ◆ - 110-125°C ▼ - Over 200°C S - Storage

- **Max. Thermal Res.**
  Symbols indicate temperature at which derating starts.
  † - 40°C ♦ - 80°C
  * - 45°C ☒ - 60°C $ - 100°C
  # - 50°C § - 75°C ϕ - Free air
  ▼ - Typical value
  △ - > 100°C

- **Max. V_P at $I_D \approx 0$**
  † - V_{GS} (cut off) % - Typical
  △ - V_{GST} (Threshold)

- **& V_{DS}**
  △ - Depletion Mode, Type A
  $ - Depletion-Enhancement Mode, Type B
  * - Enhancement Mode, Type C

- **$r'_{bb} \times C_{ob}$**
  † - r'_{bb}

- **r_{DS}**
  % - Maximum △ - Not given at test conditions
  † - $R_{DS(on)}$ @ $V_{DS} = 0$

- **Structure**
  A - Alloy
  AN - Annular
  D - Diffused or drift
  DM - Diffused mesa
  E - Epitaxial
  EA - Epitaxial annular
  EM - Epitaxial mesa
  F - Fused
  G - Grown
  MA - Micro alloy
  MD - Micro alloy diffused
  ME - Mesa
  MOS - Metal oxide silicon
  N - NPN or N Channel
  P - PNP or P Channel
  PA - Precision alloy
  PC - Point contact
  PD - Precision alloy diffused
  PE - Planar epitaxial
  PL - Planar
  S - Surface barrier
  * - Matched Pair
  △ - Switching, other uses
  ☒ - Chopper, other uses
  ϕ - Noise figure 8db or below
  † - Plastic Package
  § - Field Effect Transistor
  # - Radiation Resistant Device
  $ - Tetrode
  H - Hometaxial

for Sections 6 and 7
Ge - Germanium
- Junction Type
* - Insulated Gate (MOS type)
§ - Matched Pair

- **t_r**
  ☒ - Maximum § - t_s † - $t_s + t_f = T_{off}$
  ∅ - $t_r + t_d = T_{on}$ # - t_f

- **Type No.**
  † - Switching type, also listed in Section 12
  ∅ - Chopper, also listed in Section 13, Category 10
  * - These types also included elsewhere with other characteristics. See Type No. Cross Index for alternate line No.
  § — Radiation Resistant Devices. Also listed in Section 13, Category 13.
  ▼ - Matched Pair , also listed in Section 13, Category 6.
  ♦ - Phototransistor, also listed in Section 13, Category 7.

- **V_{CB}**
  ϕ - V_{CE}

- **V_{DS}**
  △ - V_{GD} † - V_{DG}

- **V_{GS}**
  ϕ - I_D in mA

- **Yos**
  △ - Y_{rs} % - Maximum
  † - Not at given test conditions * - Pulsed

For SECTION 13— MISCELLANEOUS TRANSISTORS

- **Category**
  1 - Avalanche Mode
  2 - Bi-directional
  3 -
  4 - Hook Collector
  5 - Complementary— Symmetry (PNP & NPN) Matched Pair
  6 - Matched Pair
  7 - Phototransistor
  8 -
  9 - Unijunction
  N - N-type emitter
  P - P-type emitter
  10 - Chopper
  11 - Composite
  12 - Cryogenic
  13 - Radiation Resistant Devices
  14 - Pressure Sensitive
  15 - Chips

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line
1B1055	GESY	none
Repl.by D11B1055 Cur.		
2AC128	MINA	none
MULB	PHIC	
	RADF	
Repl.by 2N2431MP Obs.		
2AT128	ANOA	74- 17
2G108	SGSI	27- 23
2G109	SGSI	27- 28
2G138	SGSI	30- 67
2G139	SGSI	30- 72
2G140	SGSI	30- 79
2G141	SGSI	30- 83
2G201	SGSI	27- 24
2G202	SGSI	27- 29
2G223	TIIB	56- 19
2G224	TIIB	56- 20
2G225	TIIB	56- 21
2G226	TIIB	56- 22
2G227	TIIB	56- 23
2G228	TIIB	56- 24
2G229	TIIB	56- 25
2G230	TIIB	56- 26
2G231	TIIB	56- 27
2G270	SGSI	31- 13
2G271	SGSI	31- 14
2G301	SGSI	21- 81
	TIIB	
2G302	SGSI	28- 41
	TIIB	
2G303	TIIB	30- 50
2G304	TIIB	30- 84
2G306	TIIB	30- 87
2G308	TIIB	28- 5
2G309	TIIB	28- 59
2G319	SGSI	30-106
	TADI	
2G320	SGSI	30-110
	TADI	
2G321	SGSI	31- 6
	TADI	
2G322	SGSI	27-109
	TADI	
2G323	SGSI	28- 10
	TADI	
2G324	SGSI	28- 12
	TADI	
2G339A	TIIB	34- 24
2G344	TIIB	28- 60
2G345	TIIB	28- 23
2G371	TIIB	28- 24
2G374	TIIB	28- 25
2G376	TIIB	28- 26
2G377	TIIB	28- 27
2G381	TIIB	31- 20
2G382	TIIB	31- 21
2G383	TIIB	31- 22
2G384	TIIB	31- 23
2G385	TIIB	31- 24
2G386	TIIB	31- 25
2G387	TIIB	31- 26
2G394	SGSI	28- 13
2G395	SGSI	28- 37
	TADI	69- 3
2G396	SGSI	28- 46
		69- 19
2G397	SGSI	28- 61
	TADI	69- 46
2G398	SGSI	27-100
	TADI	
2G401	SGSI	30- 92
	TIIB	
2G402	SGSI	30- 93
	TIIB	
2G403	TIIB	30- 94
2G404	TIIB	30- 91
2G413	TIIB	25- 36
2G414	TIIB	25- 38
2G415	TIIB	25- 39
2G416	TIIB	25- 40
2G417	TIIB	25- 35
2G508	SGSI	28- 21
2G509	SGSI	28- 22
2G524	SGSI	30-107
	TADI	68- 81
2G525	SGSI	31- 1
	TADI	68- 89
2G526	SGSI	31- 4
	TADI	68- 92
2G527	SGSI	31- 7
	TADI	68- 94
2G577	SGSI	31- 2
	TADI	
2G601	SGSI	30- 68
2G602	SGSI	30- 77
2G603	SGSI	28- 52
		69- 22
2G604	SGSI	28- 51
		69- 20
2G605	SGSI	28- 53
	TADI	69- 21
2G1024	SGSI	30-108
	TADI	68- 82
2G1025	SGSI	31- 3
	TADI	68- 90
2G1026	SGSI	31- 5
	TADI	68- 93
2G1027	SGSI	31- 8
	TADI	68- 95
2N21	△WEC	25- 96
2N21A	WEC	25- 97
2N22	△WEC	25- 73
2N23	WEC	22- 58
2N24	△WEC	25- 74
2N25	△WEC	30- 76
2N26	△WEC	24- 23
2N27	WEC	none
Repl.by 2N29 Obs.		
2N28	WEC	33-100
2N29	△WEC	33-102
2N30	△GESY	24- 90
2N31	△GESY	24- 99
2N32	△RCAS	19- 98
	CLE	
2N32A	△RCAS	19- 99
2N33	△RCAS	18-106
2N34/5	SYL	27- 72
2N35/5	SYL	34- 15
2N38A	△CBS	19- 46
2N41	△RCAS	19- 47
2N46	△RCAS	19- 48
2N47	△PHIL	19- 83
2N48	△PHIL	19- 84
2N49	△PHIL	19- 85
2N50	△CLE	19-100
2N51	△CLE	24- 41
2N52	△CLE	25- 75
2N53	△CLE	24-110
2N54	△WESY	29- 91
2N55	△WESY	29- 92
2N56	△WESY	29- 93
2N57	△MIN	53- 92
2N62	△PHIC	19- 49
2N66	△WEC	53-104
2N67	△WEC	74- 12
2N68	△SYL	52- 62
	GEM	
2N71	△WESY	52- 1
2N72	△RCAS	20- 7
2N73	△WESY	29- 78
2N74	△WESY	29- 79
2N75	△WESY	29- 80
2N76	△GESY	19- 89
2N79	△RCAS	19- 17
2N80	△CBS	32- 17
2N81	△GESY	19- 50
2N82	△CBS	19- 5
2N83	TEC	52- 82
2N83A	TEC	52- 83
2N84	TEC	52- 84
2N84A	TEC	52- 85
2N95	△SYL	58- 4
	GEM	
2N96	△RCAS	32- 18
2N97A	△BOG	33- 21
2N98A	△BOG	33- 23
2N100	△BOG	33- 1
	BEN	
2N101	△SYL	52- 63
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2N102	△SYL	58- 5
CBS	GEM	
2N109/2N217EQ		26- 65
AMP	APX	
2N109/5	SYL	27- 34
2N110	△WEC	30- 57
2N115	△APX	55- 90
	AMP	
2N123/5	KSC	28- 47
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2N127	△TII	33- 30
2N129	△PHIL	18- 96
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2N138A	△RAYN	27- 17
2N138B	△RAYN	24- 42
2N141	△SYL	52- 64
	GEM	
2N142	△SYL	58- 6
CBS	GEM	
2N143	△SYL	52- 65
CBS	GEM	
2N144	△SYL	58- 7
CBS	GEM	
2N148	TII	33- 48
2N148A	TII	33- 49
2N149	TII	33- 50
2N149A	TII	33- 51
2N150	TII	33- 52
2N150A	TII	33- 53
2N157	△CBS	53- 29
2N157A	△CBS	53- 30
2N159	△SPR	22-110
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JAN2N174	DEL	55- 91
MOTA	RCAS	
2N179	△MOTA	55- 92
2N195	TEC	24- 76
2N196	TEC	24- 73
2N197	TEC	24- 72
2N198	TEC	24- 70
2N199	TEC	24- 66
2N200	TEC	24- 77
2N204	TEC	33- 85
2N205	TEC	33- 82
2N214MP	GEM	74- 18
2N217EQ	APX	26- 66
2N222	GTC	20-108
2N230	△MAL	52- 2
2N232	GIC	18- 6
2N234	△BEN	53-105
2N235	△BEN	53-106
	CLE	
2N236	△BEN	53-107
	BACE	
2N247	△RCAS	23- 45
GEM	SYL	
2N247/33	SYL	25- 76
2N248	△TII	18-107
	ETC	
2N258	△RAYN	36- 8
2N259	△RAYN	36- 9
2N260	△CLE	35- 99
2N260A	△CLE	35-100
2N261	△CLE	35-101
2N262	△CLE	35-103
2N262A	△CLE	35-104
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2N454	GESY	66- 13
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JAN2N559/2	MOTA	none
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2N2943	SPR	28 - 91
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2NJ52	KOKJ	22 - 59
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Repl.by 2N3169 Cur.		
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2S32	KOKJ	19 - 71
2S33	KOKJ	19 - 72
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2S41	KOKJ	54 - 71
2S043	TIIB	none
Repl.by BLY47A Cur.		
2S044	TIIB	none
Repl.by BLY48A Cur.		
2S045	TIIB	none
Repl.by BLY49A Cur.		
2S046	TIIB	none
Repl.by BLY50A Cur.		
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2S745	TIIB	39 - 80
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2SA57	TOSJ	20 - 40
2SA58	TOSJ	20 - 39
2SA59	TOSJ	20 - 38
2SA60	TOSJ	20 - 37
2SA65	TOSJ	28 - 14
2SA66	TOSJ	28 - 45
2SA67	TOSJ	28 - 58
2SA72	TOSJ	20 - 33
2SA73	TOSJ	20 - 30
2SA74	TOSJ	27 - 10
2SA75	TOSJ	26 - 20
2SA76	TOSJ	20 - 43
2SA77	TOSJ	20 - 42
2SA78	TOSJ	27 - 9

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2SA79	TOSJ	20 - 29
2SA80	HITJ	23 - 86
2SA81	HITJ	23 - 74
2SA82	HITJ	23 - 87
2SA83	HITJ	23 - 56
2SA84	HITJ	23 - 75
2SA85	HITJ	23 - 88
2SA86	HITJ	31 - 9
2SA87	HITJ	23 -106
2SA88	HITJ	23 -100
2SA89	HITJ	23 -101
2SA90	HITJ	30 - 90
2SA92	TOSJ	20 - 36
2SA93	TOSJ	20 - 34
2SA94	HITJ	23 - 83
2SA126	NECJ	28 -103
		71 - 99
2SA127	TOSJ	28 - 77
2SA128	TOSJ	29 - 32
2SA129	TOSJ	29 - 33
2SA130	HITJ	23 - 95
2SA131	HITJ	23 - 89
2SA132	HITJ	23 - 93
2SA133	HITJ	23 - 84
2SA134	HITJ	23 -107
2SA135	HITJ	23 -109
2SA151	HITJ	23 - 16
2SA152	HITJ	23 - 23
2SA153	NECJ	18 - 39
2SA154	NECJ	18 - 34
2SA155	NECJ	18 - 35
2SA156	NECJ	18 - 36
2SA157	NECJ	18 - 40
2SA159	NECJ	18 - 37
2SA160	NECJ	18 - 38
2SA169	NIPJ	27 - 6
2SA170	NIPJ	29 - 49
2SA171	NIPJ	26 -109
2SA173	NIPJ	26 - 61
2SA174	NIPJ	29 - 47
2SA175	TOSJ	20 - 41
2SA180	SANJ	20 - 6
2SA181	SANJ	19 -110
2SA182	SANJ	19 -105
2SA211	HITJ	25 -104
		68 - 97
2SA213	NIPJ	18 - 28
2SA214	NIPJ	18 - 29
2SA215	NIPJ	18 - 26
2SA216	NIPJ	18 - 27
2SA229	TOSJ	22 - 44
2SA230	TOSJ	22 - 45
2SA231	HITJ	52 - 49
2SA232	HITJ	52 - 50
2SA233	HITJ	23 -102
2SA236	TOSJ	20 - 31
2SA237	TOSJ	20 - 32
2SA242	MATJ	20 - 25
2SA243	MATJ	20 - 26
2SA247	HITJ	25 - 42
		71 - 22
2SA250	MATJ	29 - 76
2SA253	FCAJ	30 - 97
2SA280	MATJ	26 - 39
2SA281	MATJ	26 - 40
2SA285	NECJ	20 - 10
2SA286	NECJ	20 - 12
2SA287	NECJ	20 - 14
2SA288	HITJ	23 -110
2SA289	HITJ	24 - 1
2SA290	HITJ	24 - 2
2SA296	YECJ	23 - 14
2SA297	YECJ	23 - 24
2SA298	YECJ	23 - 70
2SA301	MATJ	26 - 45
2SA302	MATJ	24 - 14
2SA303	MATJ	24 - 15
2SA306	YECJ	23 - 92
2SA307	YECJ	23 - 96
2SA308	MATJ	24 - 20
2SA309	MATJ	24 - 21
2SA310	MATJ	25 - 52
2SA325	YECJ	23 - 15
		68 -102
2SA326	YECJ	23 - 25
		69 - 23
2SA327	YECJ	23 - 71
		69 -103
2SA345	MITJ	20 - 73
2SA346	MITJ	20 - 74
2SA347	MITJ	20 - 75
2SA348	MITJ	20 - 72
2SA349	MITJ	20 - 65
2SA356	HITJ	23 - 41
2SA357	HITJ	23 - 57
2SA360	MITJ	23 -104
2SA361	MITJ	23 -105
2SA362	MITJ	25 - 41
2SA363	MITJ	71 - 5
2SA364	MITJ	23 - 85
2SA365	MITJ	23 - 90
2SA366	MITJ	23 - 97
2SA367	MITJ	23 - 58
2SA368	MITJ	23 - 76
2SA369	MITJ	23 - 91
2SA370	MITJ	26 - 28
2SA375	MITJ	23 - 77
		70 - 12
2SA380	YECJ	23 - 94
2SA381	YECJ	23 - 72
2SA382	YECJ	23 - 59
2SA383	YECJ	23 - 42
2SA384	YECJ	23 - 78
2SA403	NECJ	22 - 24

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2SA404	none	22 - 38
2SA405	NECJ	28 -104
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2SA410	NECJ	71 -104
2SA411	NECJ	29 - 14
2SA425	YECJ	30 - 96
2SA426	YECJ	30 - 98
2SA430	TOSJ	21 - 18
2SA431	TOSJ	21 - 20
2SA431A	TOSJ	21 - 21
2SA432	TOSJ	20 -109
2SA432A	TOSJ	21 - 19
2SA433	TOSJ	20 - 35
2SA458	MITJ	28 - 39
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2SA459	MITJ	28 - 40
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2SA460	MITJ	20 - 82
2SA461	MITJ	20 - 83
2SA462	MITJ	20 - 84
2SA463	MITJ	22 - 26
2SA464	MITJ	20 - 88
2SB25	TOSJ	53 - 76
2SB26	TOSJ	53 - 77
2SB26A	TOSJ	53 - 78
2SB27	SONY	52 - 36
2SB28	SONY	52 - 37
2SB29	SONY	52 - 38
2SB30	SONY	74 - 33
2SB31	SONY	74 - 34
2SB43	TOSJ	74 - 13
2SB43A	TOSJ	27 - 83
2SB44	TOSJ	22 - 83
2SB46	TOSJ	22 - 84
2SB47	TOSJ	22 - 85
2SB48	SONY	27 - 25
2SB49	SONY	27 - 30
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2SB51	SONY	30 - 35
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2SB53	SONY	30 - 52
2SB62	TOSJ	52 - 66
2SB63	TOSJ	52 - 67
2SB64	KOKJ	54 - 5
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2SB69	TOSJ	54 - 6
2SB73	HITJ	19 - 97
2SB74	HITJ	22 - 61
2SB76	HITJ	27 - 46
2SB78	HITJ	27 - 47
2SB80	HITJ	52 - 56
2SB81	HITJ	52 - 51
2SB82	HITJ	52 - 52
2SB83	HITJ	52 - 95
2SB84	HITJ	52 - 96
2SB85	HITJ	55 - 43
2SB86	HITJ	55 - 44
2SB87	HITJ	55 - 45
2SB90	TOSJ	19 - 35
2SB91	TOSJ	19 - 30
2SB94	TOSJ	27 - 84
2SB97	TOSJ	19 - 31
2SB98	NECJ	26 -100
2SB99	NECJ	26 -101
2SB102	NECJ	29 - 62
2SB103	NECJ	26 - 96
2SB104	NECJ	29 - 63
2SB105	NECJ	31 -100
2SB106	NECJ	31 -109
2SB108	NECJ	31 -101
2SB108A	NECJ	31 -102
2SB108B	NECJ	31 -103
2SB109	NECJ	31 -110
2SB109A	NECJ	32 - 1
2SB109B	NECJ	32 - 2
2SB110	NECJ	24 - 78
2SB111	NECJ	24 - 79
2SB112	NECJ	24 - 80
2SB113	NECJ	24 - 81
2SB114	NECJ	24 - 84
2SB115	NECJ	24 - 85
2SB116	NECJ	24 - 86
2SB117	NECJ	24 - 87
2SB119	MATJ	54 - 67
2SB119A	MATJ	54 - 68
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2SB123	TOSJ	54 - 7
2SB124	TOSJ	55 - 48
2SB125	TOSJ	55 - 49
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2SB141	SONY	52 - 43
2SB142	SONY	52 - 39
2SB143	SONY	52 - 40
2SB143P	SONY	52 - 88
2SB144	SONY	52 - 41
2SB144P	SONY	52 - 86
2SB145	SONY	74 - 35
2SB146	SONY	74 - 36
2SB147	SONY	52 - 44
2SB148	TOSJ	55 - 50
2SB149	TOSJ	54 - 8
2SB153	HITJ	27 - 48
2SB154	HITJ	27 - 49
2SB157	MATJ	18 - 8
2SB158	MATJ	18 - 9
2SB159	MATJ	18 - 12
2SB160	MATJ	18 - 10
2SB161	NECJ	26 - 81
2SB162	NECJ	29 - 53
2SB163	NECJ	26 - 87
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2SB224	NECJ	30-109
2SB228	HITJ	55- 40
2SB229	HITJ	55- 41
2SB230	HITJ	55- 42
2SB231	TOSJ	54- 9
2SB232	MATJ	54-104
2SB233	MATJ	54-105
2SB234	MATJ	54-106
2SB238	NECJ	52- 97
2SB246	NECJ	55- 51
2SB258	TOSJ	55- 99
2SB259	TOSJ	55-100
2SB260	TOSJ	55-101
2SB264	NECJ	21- 14
2SB266	YECJ	27- 96
2SB267	YECJ	27- 97
2SB268	MITJ	31- 27
2SB269	YECJ	27- 98
2SB274	HITJ	52- 89
2SB275	HITJ	52- 90
2SB276	HITJ	52- 91
2SB293	YECJ	27- 92
2SB294	YECJ	27- 93
2SB296	TOSJ	55- 37
2SB299	YECJ	27- 99
2SB300	TOSJ	55- 38
2SB301	TOSJ	55- 39
2SB312	MATJ	54- 73
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2SB317	MITJ	31- 28
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2SB356	MITJ	52-105
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2SC113	HITJ	49- 11
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2SC166	HITJ	42- 72
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2V465	ELBR	23- 2
2V466	ELBR	23- 8
2V467	ELBR	23- 19
2V482	ELBR	23- 6
2V483	ELBR	23- 9
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2V559	ELBR	23- 73
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3TE150	BRUB	62- 18
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3TE160	BRUB	61- 26
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3TE220	INTG	64- 48
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3TE225	ITT	none
Repl.by 2N5214 Cur.		
3TE230	INTG	64- 10
3TE240	INTG	63- 53
3TE245	ITT	none
Repl.by 2N5215 Cur.		
3TE250	ITT	61-103
3TE260	ITT	61- 14
3TE350	ITT	none
Repl.by 2N5213 Cur.		
3TE440	INTG	63- 36
3TE450	INTG	61- 90
3TX002	ITT	64- 49
3TX003	ITT	64- 13
3TX004	ITT	64- 14
3UT07	none	51- 11
3UT80	none	50- 6
3UT100	none	51- 24
4D20	GESY	none
Repl.by D4D20 Cur.		
4D21	GESY	none
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4D22	GESY	none
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4JD1A17	GESY	27- 87
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Repl.by D7A31 Cur.		
7A32	GESY	none
Repl.by D7A32 Cur.		
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7B1	GESY	none
Repl.by D7B1 Obs.		
7B2	GESY	none
Repl.by D7B2 Obs.		
7B3	GESY	none
Repl.by 2N2611 Cur.		
7B4	GESY	none
Repl.by 2N2201 Cur.		
7B13	GESY	60-107
7B33	GESY	none
Repl.by 2N3589 Cur.		
7B34	GESY	none
Repl.by 2N3590 Cur.		
7C1	GESY	none
Repl.by D7C1 Obs.		
7C2	GESY	none
Repl.by D7C2 Obs.		
7C3	GESY	none
Repl.by D7C3 Obs.		
7C4	GESY	none
Repl.by 2N2202 Cur.		
7C13	GESY	60- 84
7D1	GESY	none
Repl.by D7D1 Obs.		
7D2	GESY	none
Repl.by D7D2 Obs.		
7D3	GESY	none
Repl.by D7D3 Obs.		
7D4	GESY	none
Repl.by 2N2203 Cur.		
7D13	GESY	none
Repl.by D7D13 Cur.		
7D33	GESY	none
Repl.by 2N3591 Cur.		
7D34	GESY	none
Repl.by 2N3592 Cur.		
7E1	GESY	none
Repl.by D7E1 Obs.		
7E2	GESY	none
Repl.by D7E2 Cur.		
7E3	GESY	none
Repl.by D7E3 Obs.		
7E4	GESY	none
Repl.by 2N2204 Cur.		
7E13	GESY	60- 85
7F1	GESY	none
Repl.by D7F1 Obs.		
7F2	GESY	none
Repl.by D7F2 Obs.		
7F3	GESY	none
Repl.by D7F3 Obs.		
7F4	GESY	none
Repl.by D7F4 Obs.		
7F13	GESY	60- 86
7G1	GESY	none
Repl.by D7G1 Obs.		
7G2	GESY	none
Repl.by D7G2 Obs.		
7G3	GESY	none
Repl.by D7G3 Obs.		
7G4	GESY	none
Repl.by 2N2995 Cur.		
7G13	GESY	60- 95
7G33	GESY	none
Repl.by 2N2726 Cur.		
7G34	GESY	none
Repl.by 2N2727 Cur.		
10B551	GESY	40- 44
10B553	GESY	40- 25
10B553-2,3	GESY	none
Repl.by D10B553-2,3 Cur.		
10B555	GESY	40- 26
10B555-2,3	GESY	none
Repl.by D10B555-2,3 Cur.		
10B556	GESY	40- 27
10B556-2,3	GESY	none
Repl.by D10B556-2,3 Cur.		
10B701	GESY	39- 12
10B705	GESY	71-109
10B1051	GESY	none
Repl.by D10B1051 Cur.		
10B1055	GESY	none
Repl.by D10B1055 Cur.		
10C573	GESY	40- 28
10C573-2,3	GESY	none
Repl.by D10C573-2,3 Cur.		
10C574	GESY	40- 29
10C574-2,3	GESY	none
Repl.by D10C574-2,3 Cur.		
10D556-2,3	GESY	40- 59
10D701	GESY	39- 14
10D702	GESY	39- 13
10E1051	GESY	39- 15
		72- 78
10G1051	GESY	39- 2
10G1052	GESY	none
Repl.by D10G1052 Cur.		
10H551	GESY	39- 88
10H551-2,3	GESY	none
Repl.by D10H551-2,3 Cur.		
10H553	GESY	39- 89
10H553-2,3	GESY	none
Repl.by D10H553-2,3 Cur.		
10H1051	GESY	39- 90
10H1053	GESY	39- 91
10T2	FTHF	40- 72
11B551	GESY	39- 95
11B551-2,3	GESY	none
Repl.by D11B551-2,3 Cur.		
11B552	GESY	39- 98
11B552-2,3	GESY	none
Repl.by D11B552-2,3 Cur.		
11B554	GESY	40- 7
11B554-2,3	GESY	none
Repl.by D11B554-2,3 Cur.		
11B555	GESY	40- 8
11B555-2,3	GESY	none
Repl.by D11B555-2,3 Cur.		
11B556	GESY	39- 99
11B556-2,3	GESY	none
Repl.by D11B556-2,3 Cur.		
11B560	GESY	39-100
11B560-2,3	GESY	none
Repl.by D11B560-2,3 Cur.		
11B1052	GESY	40- 18
11B1055	GESY	none
Repl.by D11B1055 Cur.		
11B1257	GESY	49- 30
11B1258	GESY	49- 28
11B1259	GESY	47- 69
11B1260	GESY	49- 22
11C1B1	GESY	61- 47
11C1F1	GESY	61- 2
11C3B1	GESY	61- 48
11C3F1	GESY	61- 3
11C5B1	GESY	61- 49
11C5F1	GESY	61- 4
11C7B1	GESY	none
Repl.by D11C7B1 Cur.		
11C7F1	GESY	none
Repl.by D11C7F1 Cur.		
11C10B1	GESY	61- 50
11C10F1	GESY	61- 5
11C11B1	GESY	61- 51
11C11F1	GESY	61- 6
11C201B20	GESY	61- 70
11C203B20	GESY	61- 71
11C205B20	GESY	61- 72
11C207B20	GESY	none
Repl.by D11C207B20 Cur.		
11C210B20	GESY	61- 73
11C211B20	GESY	61- 74
11C551	GESY	39-101
11C551-2,3	GESY	none
Repl.by D11C551-2,3 Cur.		
11C553	GESY	39-102
11C553-2,3	GESY	none
Repl.by D11C553-2,3 Cur.		
11C557	GESY	39-103
11C557-2,3	GESY	none
Repl.by D11C557-2,3 Cur.		
11C702	GESY	45- 15
11C704	GESY	45- 16
11C710	GESY	45- 17
11C1051	GESY	39-104
11C1053	GESY	39-105
11C1057	GESY	39-106
11C1536	GESY	49- 29
11CB1	GESY	60- 76
11CB2	GESY	60- 77
11CB3	GESY	60- 78
11CB4	GESY	60- 79
11CB5	GESY	60- 80
11CB6	GESY	60- 81
11CB7	GESY	60- 82
11CB8	GESY	60- 83
11CF1	GESY	*60- 66*
11CF2	GESY	60- 67
11CF3	GESY	60- 68

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TYPE No.	MFRS	Pg&Line
11CF4	GESY	60- 71
11CF5	GESY	60- 72
11CF6	GESY	60- 73
11CF7	GESY	60- 74
11CF8	GESY	60- 75
11G702	GESY	39- 8
11G703	GESY	39- 9
11G1052	GESY	39- 10
11G1053	GESY	39- 11
11T1	FTHF	52- 4
11T2	FTHF	40- 73
12A8	AEIL	74- 48
12A304	GESY	74- 49
12A308	GESY	74- 50
12A904	GESY	74- 51
12E109	GESY	none
Repl.by D12E109 Cur.		
12G301	GESY	74- 52
12G302	GESY	74- 53
12H301	GESY	74- 54
12H302	GESY	74- 55
12H303	GESY	74- 56
12J301	GESY	74- 57
12J302	GESY	74- 58
12J303	GESY	74- 59
12T1	FTHF	52- 5
12T2	FTHF	40- 74
12X010	GESY	none
Repl.by D12X010 Cur.		
12X011	GESY	none
Repl.by D12X011 Cur.		
12X012	GESY	none
Repl.by D12X012 Cur.		
12X013	GESY	none
Repl.by D12X013 Cur.		
12X014	GESY	none
Repl.by D12X014 Cur.		
12X015	GESY	none
Repl.by D12X015 Cur.		
12X043	GESY	none
Repl.by D12X043 Cur.		
12X047	GESY	none
Repl.by D12X047 Cur.		
12X070	GESY	none
Repl.by D12X070 Cur.		
12X084A	GESY	none
Repl.by D12X084A Cur.		
13K3	SSD	none
Repl.by 3N72 Cur.		
13T1	FTHF	52- 6
14A502	GESY	none
Repl.by L14A502 Cur.		
14T1	FTHF	52- 7
15T1	FTHF	52- 8
16E4	GESY	none
Repl.by 2N3858 Cur.		
16E5	GESY	none
Repl.by 2N3859 Cur.		
16E6	GESY	none
Repl.by 2N3860 Cur.		
16G2	GESY	none
Repl.by 2N3663 Cur.		
16J1	GESY	43- 32
		72- 27
16J2	GESY	43- 33
		72- 29
16K1	GESY	43- 47
16K2	GESY	43- 48
16K3	GESY	43- 34
16L2	GESY	42- 96
16L3	GESY	42-100
16L4	GESY	42-103
16L5	GESY	42-108
16L22	GESY	42- 97
16L23	GESY	42-101
16L24	GESY	42-104
16L25	GESY	42-109
16L42	GESY	42- 98
16L43	GESY	none
Repl.by 2N3855 Cur.		
16L44	GESY	none
Repl.by 2N3856 Cur.		
16L62	GESY	42- 99
16L63	GESY	none
Repl.by 2N3855A Cur.		
16L64	GESY	none
Repl.by 2N3856A Cur.		
16T1	FTHF	52- 9
16X1	GESY	none
Repl.by 2N3877A Cur.		
16X2	GESY	none
Repl.by 2N3877 Cur.		
17T1	FTHF	31-107
18T1	SESC	31-108
20A10	GESY	64- 52
20A11	GESY	64- 53
20A12	GESY	64- 54
20C1	GESY	63- 54
22MPG5	KSC	76- 64
22MPS5	KSC	76- 65
23K3	SSD	none
Repl.by 3N73 Cur.		
25T1	CDLF	18-104
	FTHF	
25T2	FTHF	47- 84
26T1	CDLF	18- 92
	FTHF	
26T2	FTHF	47- 85
26T2C	SESC	60- 4
28T2	FTHF	47- 86
29T2	FTHF	47- 87
29T2C	FTHF	60- 5
31N2	SSD	none
Repl.by 2N735A Cur.		
32N2	SSD	none
Repl.by 2N736 Cur.		
33K3	SSD	none
Repl.by 3N71 Cur.		
34N2	SSD	none
Repl.by 2N739A Cur.		
35N2	SSD	none
Repl.by 2N740A Cur.		
35T1	CDLF	19-104
36T1	CDLF	19-108
37T1	CDLF	20- 1
38N2	SSD	none
Repl.by 2N758B Cur.		
38T1	FTHF	24- 34
39N2	SSD	none
Repl.by 2N759B Cur.		
39T1	FTHF	24- 36
40N2	SSD	none
Repl.by 2N760B Cur.		
41N2	SSD	none
Repl.by 2N929A Cur.		
42N2	SSD	none
Repl.by 2N930A Cur.		
64EPA	RADF	40- 90
64EPB	RADF	40- 91
64T1	SESC	28- 48
65T1	SESC	28- 54
78EP	RADF	46- 6
		72- 80
82T1	SESC	52- 10
96EP	RADF	44- 84
		71- 52
97EPA	RADF	45-104
		72- 38
97EPB	RADF	45-105
		72- 39
101A	MOTA	28-107
		72- 19
101B	MOTA	28-108
		72- 20
101M	MOTA	29- 1
		72- 21
103EP	RADF	40- 92
107A	MOTA	29- 5
107B	MOTA	29- 6
107M	MOTA	29- 7
109UA	WESY	none
Repl.by 2N2739 Cur.		
109UB	WESY	none
Repl.by 2N2740 Cur.		
109UC	WESY	none
Repl.by 2N2741 Cur.		
109UD	WESY	none
Repl.by 2N2742 Cur.		
109WA	WESY	none
Repl.by 2N2745 Cur.		
109WB	WESY	none
Repl.by 2N2746 Cur.		
109WC	WESY	none
Repl.by 2N2747 Cur.		
109WD	WESY	none
Repl.by 2N2748 Cur.		
109XA	WESY	none
Repl.by 2N2751 Cur.		
109XB	WESY	none
Repl.by 2N2752 Cur.		
109XC	WESY	none
Repl.by 2N2753 Cur.		
109XD	WESY	none
Repl.by 2N2754 Cur.		
115UA	WESY	none
Repl.by 2N1809 Cur.		
115UB	WESY	none
Repl.by 2N1810 Cur.		
115UC	WESY	none
Repl.by 2N1811 Cur.		
115UD	WESY	none
Repl.by 2N1812 Cur.		
115UE	WESY	none
Repl.by 2N1813 Cur.		
115UF	WESY	none
Repl.by 2N1814 Cur.		
115WA	WESY	none
Repl.by 2N1816 Cur.		
115WB	WESY	none
Repl.by 2N1817 Cur.		
115WC	WESY	none
Repl.by 2N1818 Cur.		
115WD	WESY	none
Repl.by 2N1819 Cur.		
115XA	WESY	none
Repl.by 2N1823 Cur.		
115XB	WESY	none
Repl.by 2N1824 Cur.		
115XC	WESY	none
Repl.by 2N1825 Cur.		
115XD	WESY	none
Repl.by 2N1826 Cur.		
115YA	WESY	none
Repl.by 2N1830 Cur.		
115YB	WESY	none
Repl.by 2N1831 Cur.		
115YC	WESY	none
Repl.by 2N1832 Cur.		
115YD	WESY	none
Repl.by 2N1833 Cur.		
118UA	WESY	none
Repl.by 2N2226 Cur.		
118UB	WESY	none
Repl.by 2N2227 Cur.		
118UC	WESY	none
Repl.by 2N2228 Cur.		
118UD	WESY	none
Repl.by 2N2229 Cur.		
118XA	WESY	none
Repl.by 2N2230 Cur.		
118XB	WESY	none
Repl.by 2N2231 Cur.		
118XC	WESY	none
Repl.by 2N2232 Cur.		
118XD	WESY	none
Repl.by 2N2233 Cur.		
125T1	CDLF	31- 96
125UA	WESY	none
Repl.by 2N2109 Cur.		
125UB	WESY	none
Repl.by 2N2110 Cur.		
125UC	WESY	none
Repl.by 2N2111 Cur.		
125UD	WESY	none
Repl.by 2N2112 Cur.		
125UE	WESY	none
Repl.by 2N2113 Cur.		
125UF	WESY	none
Repl.by 2N2114 Cur.		
125WA	WESY	none
Repl.by 2N2116 Cur.		
125WB	WESY	none
Repl.by 2N2117 Cur.		
125WC	WESY	none
Repl.by 2N2118 Cur.		
125WD	WESY	none
Repl.by 2N2119 Cur.		
125XA	WESY	none
Repl.by 2N2123 Cur.		
125XB	WESY	none
Repl.by 2N2124 Cur.		
125XC	WESY	none
Repl.by 2N2125 Cur.		
125XD	WESY	none
Repl.by 2N2126 Cur.		
125YA	WESY	none
Repl.by 2N2130 Cur.		
125YB	WESY	none
Repl.by 2N2131 Cur.		
125YC	WESY	none
Repl.by 2N2132 Cur.		
125YD	WESY	none
Repl.by 2N2133 Cur.		
126T1	CDLF	31- 97
127T1	CDLF	31- 98
130-04	WESY	66- 58
130-06	WESY	66- 59
130-08	WESY	66- 60
130-10	WESY	66- 61
146T1	SESC	54- 79
147T1	SESC	54- 10
151-05	WESY	67- 16
151-07	WESY	67- 17
151-09	WESY	67- 18
152-05	WESY	67- 19
152-07	WESY	67- 20
152-09	WESY	67- 21
153-05	WESY	67- 2
153-07	WESY	67- 3
153-09	WESY	67- 4
154-05	WESY	67- 5
154-07	WESY	67- 6
154-09	WESY	67- 7
156-04	WESY	66- 41
156-06	WESY	66- 42
156-08	WESY	66- 43
156-10	WESY	66- 44
161T2	SESC	none
Repl.by 2N3605 Cur.		
162T2	SESC	none
Repl.by 2N3606 Cur.		
163-05	WESY	67- 80
163-07	WESY	67- 81
163-09	WESY	67- 82
164-05	WESY	67- 83
164-07	WESY	67- 84
164-09	WESY	67- 85
180T2	SESC	65- 80
181T2	SESC	65- 81
182T2	SESC	65- 82
183T2	SESC	65- 83
184T2	SESC	65- 84
185T2	SESC	65- 85
200A	TII	none
Repl.by 2N364 Cur.		
201A	MOTA	none
	TII	
Repl.by 2N365 Cur.		
201B	MOTA	29- 2
201M	MOTA	29- 3
202A	TII	none
Repl.by 2N366 Cur.		
204A	TII	34- 23
207A	MOTA	29- 8
207B	MOTA	29- 9
207M	MOTA	29- 10
219BLY-A	RADF	none
Repl.by BFW98 Cur.		
251M1	DEL	none
Repl.by 2N1358A Cur.		
251M	DEL	none
Repl.by JAN2N1358 Cur.		
300	TII	none
Repl.by 2N367 Cur.		
301	TII	none
Repl.by 2N368 Cur.		
302	TII	none
Repl.by 2N369 Cur.		
320	TII	none
Repl.by 2N1093 Cur.		
352	TII	none
Repl.by 2N185 Cur.		
355	TII	52-103
420	TII	none
Repl.by 2N2387 Cur.		
421	TII	none
Repl.by 2N2388 Cur.		
421T1	CDLF	29- 75
422	TII	none
Repl.by 2N851 Cur.		
423	TII	none
Repl.by 2N852 Cur.		
424	TII	none
Repl.by 2N2381 Cur.		
425	TII	none
Repl.by 2N2390 Cur.		
426	TII	none
Repl.by 2N2391 Obs.		
427	TII	none
Repl.by 2N2392 Obs.		
428	TII	none
Repl.by 2N2393 Cur.		
429	TII	none
Repl.by 2N2394 Cur.		
430	TII	none
Repl.by 2N849 Cur.		
431	TII	none
Repl.by 2N850 Cur.		
432	TII	none
Repl.by 2N2395 Cur.		
433	TII	none
Repl.by 2N2396 Cur.		
440C-C	MAL	52- 11
440C-E	MAL	52- 12
441C	MAL	52- 13
442C-A	MAL	52- 14
442C-D	MAL	52- 15
450	TII	none
Repl.by 2N849 Cur.		
451	TII	none
Repl.by 2N850 Cur.		
474	TII	none
Repl.by 2N928 Cur.		
475	TII	none
Repl.by 2N930 Cur.		
490	TII	none
Repl.by 2N780 Cur.		
501	TII	none
Repl.by 3N25 Obs.		
501T1	SESC	24- 8
503T1	SESC	24- 9
504T1	SESC	24- 5
505T1	SESC	24- 6
506T1	SESC	24- 10
507T1	SESC	24- 11
508T1	SESC	24- 7
551B	GESY	75- 80
602	TII	none
Repl.by 2N997 Cur.		
605	TII	none
Repl.by 2N2432 Cur.		
703B	GESY	47- 71
800	TII	75- 27
801B	GESY	43-104
886	TII	none
Repl.by 2N2411 Cur.		
887	TII	none
Repl.by 2N2412 Cur.		
898	TII	none
Repl.by 2N985 Cur.		
903	TII	none
Repl.by 2N1149 Cur.		
904	TII	none
Repl.by 2N1150 Cur.		
904A	TII	none
Repl.by 2N1151 Cur.		
905	TII	none
Repl.by 2N1152 Cur.		
906	TII	none
Repl.by 2N1149 Cur.		
907	TII	none
Repl.by 2N1150 Cur.		
908	TII	none
Repl.by 2N1151 Cur.		
909	TII	none
Repl.by 2N1152 Cur.		
910	TII	none
Repl.by 2N1153 Cur.		
925	TII	40- 69
926	TII	40- 70
941T1	CDLF	20- 54
950	TII	none
Repl.by 2N1152 Cur.		
951	TII	none
Repl.by 2N1154 Cur.		
952	TII	none
Repl.by 2N1155 Cur.		
953	TII	none
Repl.by 2N1156 Cur.		
954	TII	none
Repl.by 2N1154 Cur.		
956	TII	none
Repl.by 2N1156 Cur.		
957	TII	60- 6
958	TII	60- 7
965T1	CDLF	20- 55
970	TII	63- 31
987T1	CDLF	20- 50
988T1	CDLF	20- 52
989T1	CDLF	20- 49
990T1	CDLF	20- 51
991T1	CDLF	20- 53
992T1	CDLF	20- 56
1004	GME	none
Repl.by 31004 Obs.		
1005	GME	none
Repl.by 11005 Obs.		
1009	GME	none
Repl.by 51009 Obs.		
1032	CLE	19- 52
1033	CLE	19- 53
1034	CLE	19- 54
1035	CLE	19- 55
1036	CLE	19- 56
1320	CLE	19- 57
1330	CLE	19- 58
1340	CLE	19- 59
1350	CLE	19- 60
1360	CLE	19- 61
1390	CLE	19-102
1392	TII	none
Repl.by 2N2410 Cur.		
1400	CLE	19-106
1401-1220	WESY	67-100
		68- 39
1401-1225	WESY	67-101
		68- 40
1401-1415	WESY	67-102
		68- 41
1401-1420	WESY	67-103
		68- 42
1401-1425	WESY	67-104
		68- 43
1410	CLE	20- 2
1441-0415	WESY	68- 44
1441-0420	WESY	68- 45
1441-0425	WESY	68- 46
1441-0615	WESY	68- 47
1441-0620	WESY	68- 48
1441-0625	WESY	68- 49
1441-0815	WESY	68- 38
1441-0820	WESY	68- 50
1441-0825	WESY	68- 51
1441-1015	WESY	68- 52
1441-1020	WESY	68- 53
1441-1025	WESY	68- 54
1441-1215	WESY	68- 55
1441-1220	WESY	68- 56
1441-1225	WESY	68- 57
1441-1415	WESY	68- 58
1441-1420	WESY	68- 59
1441-1425	WESY	68- 60
1711-0402	WESY	63- 55
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1711-0602	WESY	63- 57
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1768-0825	WESY	60-30
1768-1015	WESY	60-31
1768-1025	WESY	60-32
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1771-0650	WESY	60-47
1771-0660	WESY	60-48
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1859	WEC	none
Repl.by 2N28 Obs.		
1893	WEC	none
Repl.by 2N21 Obs.		
2074	WEC	none
Repl.by 2N463 Obs.		
2075	WEC	none
Repl.by 2N528 Obs.		
2081	WEC	none
Repl.by 2N1841 Obs.		
2082	WEC	none
Repl.by 2N1675 Obs.		
2097	WEC	none
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2141	WEC	none
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40005	RCA	26-46
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40053	RCA	none
Repl.by 2N3053 Cur.		
40217	RCA	45-106
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40218	RCA	45-46
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40219	RCA	46-68
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40222	RCA	45-47
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40255	RCA	62-41
40256	RCA	62-42
40264	RCA	none
Repl.by TA2301 Obs.		
40268	RCA	25-44
40283	RCA	47-48
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40342	RCA	63-23
40343	RCA	63-24
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40351	RCA	42-29
40352	RCA	42-30
40403	RCA	30-59
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40404	RCA	46-10
40422	RCA	62-96
40423	RCA	61-78
40424	RCA	62-97
40425	RCA	61-79
40426	RCA	62-98
40427	RCA	61-80
40444	RCA	66-48
40460	RCA	51-15
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40464	RCA	65-90
40465	RCA	65-91
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A108	APX	44-89
A110	APX	44-90
A111	APX	44-91
A116	APX	44-92
A133	APX	45-20
A151	APX	39-34
A152	APX	39-35
A153	APX	39-36
A157	APX	45-55
A157C	APX	45-69
A158	APX	45-56
A159	APX	45-70
A170	APX	36-79
A171	APX	36-86
A194	APX	51-16
A195	APX	51-17
A196	APX	51-18
A197	APX	51-25
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A198	APX	51-26
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A199	APX	51-27
		68-4
A200	APX	61-81
A213	APX	61-52
A323	APX	45-21
A324	APX	45-22
A344	APX	45-71
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A345	APX	45-72
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A346	APX	45-73
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A415	APX	none
Repl.by 2N4433 Cur.		
A431	APX	44-83
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A451	APX	40-93
A454	APX	40-96
A455	APX	40-95
A466	APX	41-105
A472	APX	43-79
A489	APX	43-64
A515	APX	62-43
A520	APX	74-60
A521	APX	74-61
A522	APX	64-8
A523	APX	64-9
A572	APX	63-28
A640	APX	42-91
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A641	APX	42-92
		74-63
A642	APX	42-93
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A643/L,S	none	42-88
A644/L,S	none	42-89
A645/L,S	none	42-90
A747	APX	45-57
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A757	APX	43-77
A758A	APX	36-1
A758B	APX	36-2
A759A	APX	36-3
A759B	APX	36-4
A1220	APX	24-24
A1243	APX	none
Repl.by 2N3399 Cur.		
A1377	APX	25-71
A1378	APX	24-22
A1379	APX	48-26
A1380	APX	48-27
A1381	APX	66-31
A1383	APX	26-41
A1384	APX	26-42
A1392	APX	54-11
A1409	APX	39-16
A1460	APX	39-84
A1462	APX	40-30
A1518	APX	39-48
A1519	APX	39-49
A1520	APX	39-50
A1521	APX	39-51
A1858	WEC	none
Repl.by 2N27 Obs.		
AC105	TFKG	31-90
AC106	TFKG	31-91
AC107M	APX	24-91
AC113	AEIL	30-36
AC115	AEIL	29-81
AC129	TFKG	18-19
AC139K/AC142	none	30-100
AC154	AEIL	30-37
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AC154/AC157	AEIL	74-14
AC155	AEIL	30-13
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AC156	AEIL	30-32
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AC177	AEIL	30-41
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ACY30	TIIB	30-33
ACY31	TIIB	30-10
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ACY35	INTG	29-89
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ACY36	INTG	29-90
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ADY23	INTG	56-84
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AF111	INTG	20-99
AF112	INTG	20-100
AF113	INTG	20-101
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AF130	BRUB	20-22
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AMF102	AMF	65-2
AMF103	AMF	65-3
AMF104	AMF	64-73
AMF105	AMF	64-74
AMF106	AMF	64-75
AMF107	AMF	65-4
AMF108	AMF	65-5
AMF109	AMF	65-6
AMF110	AMF	65-7
AMF111	AMF	65-8
AMF112	AMF	65-9
AMF113	AMF	65-10
AMF114	AMF	65-11
AMF115	AMF	64-76
AMF116	AMF	64-77
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AMF118	AMF	64-80
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AMF119	AMF	64-82
AMF119A	AMF	64-83
AMF120	AMF	64-84
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AMF121	AMF	65-12
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AMF124	AMF	65-18
AMF124A	AMF	65-19
AMF201	AMF	66-8
AMF201A	AMF	66-9
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AMF201C	AMF	60-21
AMF201D	AMF	60-22
AMF201E	AMF	60-23
AMF210	AMF	65-108
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AMF210B	AMF	66-2
AMF210C	AMF	66-3
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AMF229B	AMF	67-32
AMF229C	AMF	67-33
ARA25N	ADV	none
Repl.by 2N626 Obs.		
ARA25N-H	ADV	none
Repl.by 2N1019 Obs.		
ARA25P	ADV	none
Repl.by 2N676 Obs.		
ARA25P-H	ADV	none
Repl.by 2N1020 Obs.		
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ASA2	AML	74-65
ASA31	AML	76-69
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ASA1004	AML	76-72
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	INTG	
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ASY14-3	BRUB	25-55
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ASY50	INTG	29-94
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ASY51	INTG	27-75
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ASY52	INTG	28-31
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ASY54	INTG	30-63
	STCB	TIIB
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ASY58	INTG	30-69
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ASY59	INTG	30-85
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ASY66	STCB	73-12
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ASZ12	PHIN	26-107
ASZ16†	none	68-36
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B114	BEN	54-13
B121	BEN	54-14
B134	BACE	54-107
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B134A	BACE	54-108
	BEN	
B134B	BACE	54-109
	BEN	
B177	BEN	53-97
B178	BEN	53-98
B179	BEN	53-99
B1013	BEN	none
Repl.by 2N2282 Cur.		
B1013A	BEN	none
Repl.by 2N2283 Cur.		
B1013B	BEN	none
Repl.by 2N2284 Cur.		
B1017	BEN	54-15
B1022	BEN	31-41
B1110	BEN	55-103
B1151	BEN	55-55
B1151A	BEN	55-56
B1151B	BEN	55-57
B1152	BEN	55-58
B1152A	BEN	55-59
B1152B	BEN	55-60
B1154	BEN	31-95
B1274	BEN	none
Repl.by 2N2291 Cur.		
B1274A	BEN	none
Repl.by 2N2292 Cur.		
B1274B	BEN	none
Repl.by 2N2293 Cur.		
B1368A	BEN	none
Repl.by 2N2638 Cur.		
B1368B	BEN	56-63
B1368C	BEN	56-64
B1368D	BEN	none
Repl.by 2N2638 Cur.		
B1368E	BEN	none
Repl.by 2N2637 Cur.		
B1368F	BEN	none
Repl.by 2N2636 Cur.		
B1913	BEN	54-81
B1914	BEN	53-41
B3045	BEN	65-93
B3046	BEN	65-94
B3141	BEN	none
Repl.by 2N3619 Cur.		
B3142	BEN	none
Repl.by 2N3620 Cur.		
B3143	BEN	none
Repl.by 2N3621 Cur.		
B3144	BEN	none
Repl.by 2N3622 Cur.		
B3145	BEN	none
Repl.by 2N3623 Cur.		
B3146	BEN	none
Repl.by 2N3624 Cur.		
B3147	BEN	none
Repl.by 2N3625 Cur.		
B3148	BEN	none
Repl.by 2N3626 Cur.		
B3149	BEN	none
Repl.by 2N3627 Cur.		
B3161	BEN	none
Repl.by 2N3628 Cur.		
B3162	BEN	none
Repl.by 2N3629 Cur.		
B3163	BEN	none
Repl.by 2N3630 Cur.		
B3456	BEN	65-95
B3458	BEN	61-104
B3459	BEN	65-96
B3459A	BEN	65-97
B3460	BEN	none
Repl.by 2N4225 Cur.		
B3461	BEN	none
Repl.by 2N4226 Cur.		
B3556	BEN	64-15
B3557	BEN	64-16
B3558	BEN	64-17
B3559	BEN	64-18
B3560	BEN	64-19
B3561	BEN	64-20
B3562	BEN	64-21
B3563	BEN	64-22
B3564	BEN	64-23
B3565	BEN	64-24
B3566	BEN	64-25
B3567	BEN	64-26
B3629	BEN	62-44
B3630	BEN	62-45
B3631	BEN	64-27
B3632	BEN	64-28
B3633	BEN	64-29
B3634	BEN	64-30
B10060	BEN	55-61
B10061	BEN	55-62
B10062	BEN	55-63
B10063	BEN	55-64
B10064	BEN	54-16
B10065	BEN	55-65
B10066	BEN	55-66
B10067	BEN	55-67
B10068	BEN	55-68
B10069	BEN	54-17
B10142	BEN	54-82
B10142A	BEN	54-83
B10142B	BEN	54-84
B10143	BEN	54-85
B10143A	BEN	54-86
B10143B	BEN	54-87
B10144	BEN	54-110
B10144A	BEN	55-1
B10144B	BEN	55-2
B148005	BEN	66-32
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BC152	AEIL	46 - 51
BC167	none	42 - 31
BC168	none	42 - 32
BC169	none	42 - 33
BC170	INTG	42-102
BC174	INTG	42-105
BC175	AEIL	48 - 16
BC180	AEIL	46 - 52
BC250	INTG	35 - 82
BC251	INTG	35 - 83
BC252	INTG	35 - 84
BC253	INTG	35 - 85
BC261	INTG	36 - 66
BC262	INTG	36 - 67
BC263	INTG	36 - 68
BC429	TAGS	43 - 78
BC1073	BEN	none
Repl.by 2N2288 Cur.		
BC1073A	BEN	none
Repl.by 2N2289 Cur.		
BC1073B	BEN	none
Repl.by 2N2290 Cur.		
BC1274	BEN	none
Repl.by 2N2294 Cur.		
BC1274A	BEN	none
Repl.by 2N2295 Cur.		
BC1274B	BEN	none
Repl.by 2N2296 Cur.		
BC2290	BEN	none
Repl.by 2N2290 Cur.		
BCY22	TAGS	37 - 6
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BCY50I	SELG	44 - 21
BCY51	INTG	45 - 18
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BCY51I	SELG	44 - 19
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BDY16	INTG	62 - 86
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RADF	VALG	
Repl.by 2N3055 Cur.		
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BF115†	none	42 - 10
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BF187	CSF	42 - 12
	MISI	
BF188	CSF	43 - 51
	MISI	
BF189	CSF	42 - 11
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BF216	AEIL	43 - 14
BF217	AEIL	43 - 24
BF218	AEIL	43 - 16
BF219	AEIL	40 - 65
BF220	AEIL	40 - 66
BFW67	SGSI	49 - 31
BFX10	SGSI	74 - 68
BFX14	MINA	49 - 64
	SGSI	
BFY15	STCB	48 - 57
		70 - 81
BFY16	STCB	48 - 60
		71 - 3
BFY21	STCB	76 - 73
BFY22	BRUB	39 - 30
	INTG	
BFY23	BRUB	39 - 31
INTG	STCB	
BFY23A	INTG	39 - 37
BFY24	BRUB	39 - 32
INTG	STCB	
BFY25	INTG	48 - 79
	STCB	71 - 15
BFY28	INTG	45-107
	SELB	
BFY29	BRUB	39 - 33
INTG	STCB	
BFY30	BRUB	39 - 38
INTG	STCB	
BFY37i	none	41 - 97
BFY37I	SELG	41 - 98
BFY39i	none	44 - 45
BFY39I	SELG	44 - 46
BFY50I	SELG	44 - 22
BFY51I	SELG	44 - 20
BFY55	APX	none
PHIC	PHIN	
RADF	TIIF	
Repl.by 2N2297 Cur.		
BFY68	APX	none
PHIC	RADF	
	TIIF	
Repl.by 2N1711 Cur.		
BFZ10	ASMB	35 - 5
BLY10	STCB	62-101
		70 - 62
BLY11	STCB	62-102
		71 - 4
BLY15	BRUB	62-103
INTG	STCB	
BLY16	INTG	62 - 84
BLY25	SGSI	64 - 2
BLY26	SGSI	64 - 3
BLY29	SGSI	63 - 45
		70 - 14

TYPE No.	MFRS	Pg&Line
BLY30	SGSI	63 - 46
		70 - 29
BLY57	RADF	62 - 46
BLY86	SGSI	62 - 87
BPY62	SHWG	75 - 28
BR100A	BEN	62 - 47
		77 - 2
BR100C	BEN	64 - 31
		77 - 3
BR100E	BEN	64 - 55
		77 - 4
BR100F	BEN	64 - 32
		77 - 5
BR101A	BEN	62 - 48
		77 - 6
BR101C	BEN	64 - 33
		77 - 7
BR101E	BEN	64 - 56
		77 - 8
BR101F	BEN	64 - 34
		77 - 9
BR200A	BEN	64 - 57
		77 - 10
BR200B	BEN	64 - 35
		77 - 11
BR201A	BEN	64 - 58
		77 - 12
BR201B	BEN	64 - 36
		77 - 13
BSC1015	BEN	67 - 34
BSC1015A	BEN	67 - 35
BSC1015B	BEN	67 - 36
BSC1016	BEN	67 - 37
BSC1016A	BEN	67 - 38
BSC1016B	BEN	67 - 39
BSV38A	none	51 - 19
BSV50E	SGSI	72 - 95
BSV50F	SGSI	72 - 96
BSV50G	SGSI	72 - 97
BSW78	INTG	43 - 36
		72 - 40
BSW79	INTG	72 - 69
BSW80	INTG	43 - 39
		72 - 83
BSW81	INTG	35-107
		72 - 54
BSX19%	VALG	72 - 41
BSX19Ø	none	46 - 79
		72 - 42
BSX20%	VALG	72 - 70
BSX20Ø	none	46 - 92
		72 - 71
BSX31	SGSI	75-106
BSY20	INTG	none
Repl.by 2N706B Obs.		
BSY22	INTG	none
Repl.by 2N916 Obs.		
BSY23	INTG	none
Repl.by 2N834 Obs.		
BSY32	STCB	40 - 31
		71 - 13
BSY33	STCB	40 - 32
		71 - 11
BSY36	STCB	40 - 45
		71 - 78
BSY37	STCB	40 - 46
		71 - 76
BSY42	STCB	74 - 69
BSY43	STCB	74 - 70
BSY47	STCB	40 - 33
		71 - 14
BSY48	STCB	40 - 34
		71 - 12
BSY50	STCB	40 - 47
		71 - 77
BSY68	RADF	45 - 8
BUY16	SGSI	63 - 39
		70 - 85
BUY17	SGSI	63 - 40
		70 - 86
C63	FSC	46 - 56
	SGSI	
C64	FSC	46 - 57
	SGSI	
C101	CRY	36 - 12
C102	CRY	36 - 16
C103	CRY	none
Repl.by 2N1642 Cur.		
C112	CRY	36 - 15
C118	CRY	36 - 18
C119	CRY	36 - 19
C301A	CRY	73 - 13
C434	SGSI	63 - 85
		70 - 83
C610	CRY	73 - 29
C611	CRY	73 - 30
C612	CRY	73 - 31
C613	CRY	73 - 32
C614	CRY	73 - 33
C615	CRY	73 - 34
C620	CRY	73 - 35
C621	CRY	73 - 36
C622	CRY	73 - 37
C623	CRY	73 - 38
C624	CRY	73 - 39
C625	CRY	73 - 40
C631	CRY	73 - 41
C632	CRY	73 - 42
C633	CRY	73 - 43
C640	CRY	73 - 44
C641	CRY	73 - 45
C642	CRY	73 - 46
C643	CRY	73 - 47
C644	CRY	73 - 48

TYPE No.	MFRS	Pg&Line
C650	CRY	73 - 49
C651	CRY	73 - 50
C652	CRY	73 - 51
C653	CRY	73 - 52
C660	CRY	none
Repl.by 2N3084 Cur.		
C661	CRY	none
Repl.by 2N3085 Cur.		
C664	CRY	none
Repl.by 2N3086 Cur.		
C665	CRY	none
Repl.by 2N3087 Cur.		
C666	CRY	none
Repl.by 2N3088 Cur.		
C667	CRY	none
Repl.by 2N3089 Cur.		
C9001	CRY	none
Repl.by 2N2944 Cur.		
C9002	CRY	none
Repl.by 2N2945 Cur.		
C9003	CRY	none
Repl.by 2N2946 Cur.		
CA3018	RCA	76 - 74
CA3036	RCA	76 - 75
CB1F4	HON	none
Repl.by 2N1502 Cur.		
CD91	CRY	37 - 31
		74 - 71
CD92	CRY	37 - 32
		74 - 72
CD93	CRY	37 - 33
		74 - 73
CD94	CRY	37 - 34
		74 - 74
CD95	CRY	37 - 35
		74 - 75
CD96	CRY	37 - 36
		74 - 76
CD97	CRY	37 - 37
		74 - 77
CD98	CRY	37 - 38
		74 - 78
CD912	CRY	37 - 39
		74 - 79
CD922	CRY	37 - 40
		74 - 80
CD932	CRY	37 - 41
		74 - 81
CD942	CRY	37 - 42
		74 - 82
CD952	CRY	37 - 43
		74 - 83
CD962	CRY	37 - 44
		74 - 84
CD972	CRY	37 - 45
		74 - 85
CD982	CRY	37 - 46
		74 - 86
CDQ10001	CDC	41 - 13
CDQ10002	CDC	47 - 72
CDQ10003	CDC	41 - 25
CDQ10004	CDC	47 - 76
CDQ10005	CDC	41 - 33
CDQ10006	CDC	47 - 78
CDQ10007	CDC	none
Repl.by 2N335 Cur.		
CDQ10008	CDC	47 - 80
CDQ10009	CDC	41 - 42
CDQ10010	CDC	47 - 82
CDQ10011	CDC	49 - 71
CDQ10012	CDC	49 - 72
CDQ10013	CDC	none
Repl.by 2N341 Cur.		
CDQ10014	CDC	49 - 73
CDQ10015	CDC	none
Repl.by 2N343 Cur.		
CDQ10016	CDC	42 - 75
CDQ10017	CDC	42 - 76
CDQ10018	CDC	42 - 77
CDQ10019	CDC	42 - 78
CDQ10020	CDC	42 - 79
CDQ10021	CDC	42 - 80
CDQ10022	CDC	42 - 81
CDQ10023	CDC	42 - 82
CDQ10024	CDC	42 - 83
CDQ10025	CDC	none
Repl.by 2N480 Cur.		
CDQ10026	CDC	42 - 84
CDQ10027	CDC	42 - 85
CDQ10028	CDC	none
Repl.by 2N1704 Cur.		
CDQ10032	CDC	46-102
CDQ10033	CDC	49 - 74
CDQ10034	CDC	49 - 75
CDQ10035	CDC	42 - 60
CDQ10036	CDC	42 - 61
CDQ10037	CDC	49 - 76
CDQ10044	CDC	49 - 78
CDQ10045	CDC	49 - 79
CDQ10046	CDC	49 - 32
CDQ10047	CDC	49 - 33
CDQ10048	CDC	49 - 42
CDQ10049	CDC	49 - 23
CDQ10051	CDC	none
Repl.by 2N547 Cur.		
CDQ10052	CDC	none
Repl.by 2N548 Cur.		
CDQ10053	CDC	none
Repl.by 2N549 Cur.		
CDQ10054	CDC	none
Repl.by 2N550 Cur.		
CDQ10055	CDC	none
Repl.by 2N551 Cur.		

TYPE No.	MFRS	Pg&Line
CDQ10056	CDC	none
Repl.by 2N552 Cur.		
CDQ10057	CDC	none
Repl.by 2N1116 Cur.		
CDQ10058	CDC	none
Repl.by 2N1117 Cur.		
CDT1349	CLE	none
Repl.by 2N2063 Cur.		
CDT1349A	CLE	none
Repl.by 2N2064 Cur.		
CDT1350	CLE	none
Repl.by 2N2065 Cur.		
CDT1350A	CLE	none
Repl.by 2N2066 Cur.		
CG1	NAS	76-110
CI1	CRY	none
Repl.by 3N102 Cur.		
CI2	CRY	none
Repl.by 3N103 Cur.		
CI3	CRY	none
Repl.by 3N104 Cur.		
CI4	CRY	none
Repl.by 3N101 Cur.		
CI5	CRY	none
Repl.by 3N100 Cur.		
CK4	RAYN	23 - 34
		69 - 47
CK4A	RAYN	23 - 35
		69 - 48
CK13	RAYN	23 - 3
CK13A	RAYN	23 - 4
CK14	RAYN	23 - 20
CK14A	RAYN	23 - 21
CK16	RAYN	23 - 27
CK16A	RAYN	23 - 28
CK17	RAYN	22 - 68
CK17A	RAYN	23 - 38
CK22	RAYN	22 - 95
CK22A	RAYN	22 - 96
CK22B	RAYN	21 - 46
CK22C	RAYN	21 - 47
CK25	RAYN	23 - 10
		68 - 98
CK25A	RAYN	23 - 11
		68 - 99
CK26	RAYN	23 - 17
		69 - 7
CK26A	RAYN	23 - 18
		69 - 8
CK27	RAYN	23 - 30
		69 - 38
CK27A	RAYN	23 - 31
		69 - 39
CK28	RAYN	23 - 36
		69 - 52
CK28A	RAYN	23 - 37
		69 - 53
CK64	RAYN	22 - 74
CK64A	RAYN	22 - 75
CK64B	RAYN	22 - 76
CK64C	RAYN	22 - 77
CK65	RAYN	22 - 86
CK65A	RAYN	22 - 87
CK65B	RAYN	22 - 88
CK65C	RAYN	22 - 89
CK66	RAYN	22 - 97
CK66A	RAYN	22 - 98
CK66B	RAYN	22 - 99
CK66C	RAYN	22-100
CK67	RAYN	22-106
CK67A	RAYN	22-107
CK67B	RAYN	22-108
CK67C	RAYN	22-109
CK83	RAYN	21 - 70
CK86	RAYN	21-106
CK256	RAYN	53 - 42
CK258	RAYN	53 - 43
CK261	RAYN	33 - 62
CK262	RAYN	33 - 63
CK273	RAYN	73 - 3
CK277	RAYN	73 - 4
CK311	RAYN	53 - 44
CK312	RAYN	53 - 45
CK313	RAYN	53 - 46
CK314	RAYN	53 - 47
CK315	RAYN	53 - 48
CK398	RAYN	43 - 81
CK411	RAYN	53 - 49
CK412	RAYN	53 - 50
CK413	RAYN	53 - 51
CK414	RAYN	53 - 52
CK415	RAYN	53 - 53
CK419	RAYN	43 - 96
CK420	RAYN	43 - 97
CK421	RAYN	43 - 98
CK422	RAYN	43 - 99
CK474	RAYN	43-100
CK475	RAYN	43-101
CK476	RAYN	43-102
CK477	RAYN	43-103
CK751	RAYN	27 - 94
CK754	RAYN	24 - 82
CK759	RAYN	none
Repl.by 2N111 Cur.		
CK759A	RAYN	none
Repl.by 2N111A Cur.		
CK760	RAYN	none
Repl.by 2N112 Cur.		
CK760A	RAYN	none
Repl.by 2N112A Cur.		
CK761	RAYN	none
Repl.by 2N113 Cur.		
CK762	RAYN	none
Repl.by 2N114 Cur.		

TYPE No.	MFRS	Pg&Line
CK766	RAYN	18 - 4
CK766A	RAYN	18 - 5
CK790	RAYN	35 - 2
CK791	RAYN	35 - 4
CK793	RAYN	35 - 3
CK798	RAYN	none
Repl.by 2N1654 Cur.		
CK799	RAYN	none
Repl.by 2N1655 Cur.		
CK800	RAYN	none
Repl.by 2N1656 Cur.		
CK870	RAYN	27 - 13
CK871	RAYN	27 - 14
CK891	RAYN	19 - 32
CK892	RAYN	19 - 33
CK942	RAYN	none
Repl.by 2N1623 Cur.		
CP98	CPC	28 - 16
	TADI	
CP398	CPC	25 - 92
	TADI	
CP400	SGSI	63 - 86
CP401	SGSI	63 - 87
CP402	SGSI	63 - 88
CP403	SGSI	49 - 26
CP404	SGSI	63 - 89
CP405	SGSI	63 - 90
CP406	SGSI	63 - 91
		70 - 87
CP407	SGSI	63 - 92
		70 - 88
CP408	SGSI	63 - 93
		70 - 84
CP430	SGSI	64 - 4
CP431	SGSI	64 - 5
CP432	SGSI	64 - 6
CP433	SGSI	64 - 7
CP800	CPC	31 - 68
CP801	CPC	31 - 69
CP802	CPC	31 - 70
CP803	CPC	31 - 71
CQ1	NAC	27 - 50
CRT1544	CLE	56 - 35
	INTG	
CRT1545	CLE	56 - 36
	INTG	
CRT1552	CLE	56 - 37
	INTG	
CRT1553	CLE	56 - 38
	INTG	
CRT1592	INTG	56 - 65
CS696	CDC	47 - 62
		70 - 41
CS718	CDC	45 - 24
		70 - 49
CS718A	CDC	45 - 27
CS720A	CDC	45 - 25
CS918	CDC	44 - 82
CS929	CDC	44 - 4
CS930	CDC	44 - 5
CS956	CDC	45 - 34
CS1613	CDC	47 - 64
CS1711	CDC	47 - 66
CS1893	CDC	47 - 63
CS2218	CDC	47 - 67
		72 - 48
CS2219	CDC	47 - 68
		72 - 49
CS2221	CDC	45-108
		72 - 50
CS2222	CDC	45-109
		72 - 51
CS2368	CDC	44 - 78
		72 - 82
CS2481	CDC	44 - 60
		72 - 1
CS2483	CDC	44 - 23
CST1739	CLE	none
Repl.by 2N2067 Cur.		
CST1740	CLE	none
Repl.by 2N2067-O Cur.		
CST1741	CLE	none
Repl.by 2N2067G Cur.		
CST1742	CLE	none
Repl.by 2N2067B Cur.		
CST1743	CLE	none
Repl.by 2N2067W Cur.		
CST1744	CLE	none
Repl.by 2N2068 Cur.		
CST1745	CLE	none
Repl.by 2N2068-O Cur.		
CST1746	CLE	none
Repl.by 2N2068G Cur.		
CTD1322	CLE	none
Repl.by 2N2423 Cur.		
CTP1002	CLE	52 - 16
CTP1003	CLE	52 - 17
CTP1004	CLE	52 - 18
CTP1005	CLE	52 - 19
CTP1006	CLE	52 - 20
CTP1032	CLE	21 - 37
CTP1033	CLE	21 - 39
	ITT	
CTP1034	CLE	21 - 42
CTP1035	CLE	21 - 48
CTP1036	CLE	21 - 50
CTP1102	CLE	none
Repl.by 2N268 Cur.		
CTP1104	CLE	54 - 18
	INTG	
CTP1106	CLE	none
Repl.by 2N257 Cur.		
CTP1108	CLE	none
Repl.by 2N2061 Cur.		

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TYPE No.	MFRS	Pg&Line
CTP1109	CLE	none
Repl.by 2N2062 Cur.		
CTP1111	CLE	54- 88
	INTG	
CTP1112	CLE	55- 3
CTP1117	CLE	55- 4
CTP1119	CLE	52- 21
CTP1127	CLE	55- 5
CTP1133	CLE	55- 6
CTP1135	CLE	55- 7
CTP1136	CLE	66- 37
CTP1137	CLE	55- 8
CTP1265	CLE	55- 9
CTP1266	CLE	55- 10
CTP1296	CLE	55- 11
CTP1297	CLE	55- 12
CTP1306	CLE	55- 13
CTP1307	CLE	55- 14
CTP1314	CLE	55- 15
CTP1320	CLE	19- 73
CTP1330	CLE	19- 86
CTP1340	CLE	19- 90
CTP1350	CLE	19- 94
CTP1360	CLE	19- 96
CTP1390	CLE	19-103
CTP1400	CLE	19-109
CTP1410	CLE	20- 3
CTP1505	CLE	55-104
CTP1506	CLE	55-105
CTP1507	CLE	55-106
CTP1509	CLE	55-107
CTP1511	CLE	55-108
CTP1512	CLE	55-109
CTP1513	CLE	55-110
CTP1514	CLE	56- 1
CTP1530	CLE	56- 66
CTP1545	CLE	56- 2
	INTG	
CTP1550	CLE	none
Repl.by 2N2069 Obs.		
CTP1551	CLE	none
Repl.by 2N2070 Obs.		
CTP1553	CLE	56- 3
	INTG	
CTP1728	CLE	none
Repl.by 2N1755 Cur.		
CTP1729	CLE	none
Repl.by 2N1757 Cur.		
CTP1730	CLE	none
Repl.by 2N1758 Cur.		
CTP1731	CLE	none
Repl.by 2N1759 Cur.		
CTP1732	CLE	none
Repl.by 2N1761 Cur.		
CTP1733	CLE	none
Repl.by 2N1762 Cur.		
CTP1735	CLE	none
Repl.by 2N1756 Cur.		
CTP1736	CLE	none
Repl.by 2N1760 Cur.		
CTP1739	CLE	none
Repl.by 2N2067 Cur.		
CTP3550	CLE	none
Repl.by 2N2071 Obs.		
CTP3551	CLE	none
Repl.by 2N2072 Obs.		
CYT1549	CLE	56- 67
CYT1550	CLE	56- 68
CYT1551	CLE	56- 69
CYT1552	CLE	56- 70
CYT1553	CLE	56- 71
CYT1554	CLE	56- 72
CYT1555	CLE	56- 73
CYT1556	CLE	56- 74
CYT1557	CLE	56- 75
CYT1558	CLE	56- 76
CYT1559	CLE	56- 77
CYT1560	CLE	56- 78
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D7B2	GESY	62- 50
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D7D1	GESY	62- 54
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D7E2	GESY	62- 58
D7E3	GESY	62- 59
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D10C574-2,-3	GESY	40- 39
D10G1051	GESY	39- 5
D10G1052	GESY	39- 6
D10H551-2,-3	GESY	39- 92
D10H553-2,-3	GESY	39- 93
D11B551-2,-3	GESY	39- 96
D11B551-2,3	none	39- 97
D11B552-2,3	none	39-108
D11B554-2,3	none	40- 9
D11B555-2,-3	GESY	40- 10
D11B556-2,-3	GESY	39-109
D11B560-2,3	none	39-110
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D11B1055	GESY	40- 20
D11C1B1	GESY	61- 53
D11C1F1	GESY	61- 8
D11C3B1	GESY	61- 54
D11C3F1	GESY	61- 9
D11C5B1	GESY	61- 55
D11C5F1	GESY	61- 10
D11C7B1	GESY	61- 56
D11C7F1	GESY	61- 7
D11C10B1	GESY	61- 57
D11C10F1	GESY	61- 11
D11C11B1	GESY	61- 58
D11C11F1	GESY	61- 12
D11C201B20	GESY	61- 59
D11C203B20	GESY	61- 60
D11C205B20	GESY	61- 61
D11C207B20	GESY	61- 62
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D11C551-2,-3	GESY	40- 1
D11C553-2,-3	GESY	40- 2
D11C557-2,-3	GESY	40- 3
D11C702	GESY	45- 35
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D11C710	GESY	45- 37
D11C1051	GESY	40- 4
D11C1053	GESY	40- 5
D11C1057	GESY	40- 6
D11C1536	GESY	49- 43
D11E404	GESY	49- 59
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D11E405	GESY	49- 60
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D11E406	GESY	49- 61
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D16E7	GESY	42-110
D16E9	none	43- 1
D16G6	GESY	43- 40
D16K1	GESY	43- 55
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D26C3	GESY	39- 47
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D29A7	GESY	36-104
D29A8	GESY	36-105
D29A9	GESY	36-106
D29A10	GESY	36-107
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D29A11	GESY	36-108
		70- 97
D30A1	GESY	35- 7
D30A2	GESY	35- 8
D30A3	GESY	35- 9
D33K1	GESY	46- 24
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D33K3	GESY	46- 26
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J466	TII	40-109
J503	TII	none
Repl.by 2N1586 Cur.		
J504	TII	none
Repl.by 2N1587 Cur.		
J505	TII	none
Repl.by 2N1588 Cur.		
J506	TII	none
Repl.by 2N1589 Cur.		
J507	TII	none
Repl.by 2N1590 Cur.		
J508	TII	none
Repl.by 2N1591 Cur.		
J509	TII	none
Repl.by 2N1592 Cur.		
J510	TII	none
Repl.by 2N1593 Cur.		
J511	TII	none
Repl.by 2N1594 Cur.		
J581	TII	48- 94
J582	TII	48- 95
J583	TII	48- 96
J584	TII	48- 97
J585	TII	48- 98
J586	TII	48- 99
J587	TII	48-100
J588	TII	48-101
J589	TII	48-102
J594	TII	48-103
J595	TII	48-104
J596	TII	48-105
J623	TII	41- 6
J624	TII	41- 7
J625	TII	41- 8
J626	TII	41- 14
J627	TII	41- 15
J628	TII	41- 16
J629	TII	41- 17
J630	TII	41- 18
J631	TII	41- 19
K1001	KMC	51- 20
K1002	KMC	51- 21
K1003	KMC	51- 22
K1004	KMC	51- 23
K1201	KMC	51- 9
K1202	KMC	51- 10
K1501	KMC	50- 9
K1502	KMC	50- 10
K1504	KMC	50- 11
K2001	KSC	none
Repl.by 2N2857 Cur.		
K4002	KMC	47- 70
K5010	KMC	42- 8
K5011	KMC	42- 7
K5202	KMC	40- 88
KGS1000	KSC	29-110
KGS1001	KSC	30- 60
KGS1002	KSC	30- 73
KGS1003	KSC	30- 78
KGS1004	KSC	30- 88
KGS1005	KSC	30- 61
KY4042	UCC	74-101
KY4043	UCC	74-102
KY4099	UCC	74-103
L10A	SHEJ	67- 54
L10B	SHEJ	67- 55
L10C	SHEJ	67- 56
L10D	SHEJ	67- 57
L20	TII	none
Repl.by 2N2865 Cur.		
L20A	SHEJ	67- 58
L20B	SHEJ	67- 59
L20C	SHEJ	67- 60
L20D	SHEJ	67- 61
L30A	SHEJ	67- 62
L30B	SHEJ	67- 63
L30C	SHEJ	67- 64
L30D	SHEJ	67- 65
L5021	PHIL	none
Repl.by 2N223 Cur.		
L5022A	PHIL	none
Repl.by 2N226 Cur.		
L5025A	PHIL	none
Repl.by 2N224 Cur.		
L5431	PHIL	21- 30
LDA408	APX	41- 67
LDS206	APX	46- 58
		71- 41
LDS208	APX	46- 55
		71- 23
LT51	CBS	53- 55
LT55	CBS	53- 56
LT5022	KSC	53- 57
LT5025	KSC	53- 58
LT5028	KSC	53- 59
LT5031	KSC	53- 60
LT5034	KSC	53- 61

TYPE No.	MFRS	Pg&Line
LT5038	KSC	53- 62
LT5039	KSC	53- 63
LT5042	KSC	53- 64
LT5045	KSC	53- 65
LT5048	KSC	53- 66
LT5051	KSC	53- 67
LT5054	KSC	54- 29
LT5057	KSC	54- 30
LT5060	KSC	54- 31
LT5063	KSC	54- 32
LT5066	KSC	54- 33
LT5069	KSC	54- 34
LT5072	KSC	54- 35
LT5075	KSC	54- 36
LT5078	KSC	54- 37
LT5081	KSC	54- 38
LT5084	KSC	54- 39
LT5087	KSC	54- 40
LT5090	KSC	55- 19
LT5093	KSC	55- 20
LT5096	KSC	55- 21
LT5099	KSC	55- 22
LT5102	KSC	55- 23
LT5105	KSC	55- 24
LT5108	KSC	55- 25
LT5111	KSC	55- 26
LT5114	KSC	55- 27
LT5117	KSC	55- 28
LT5120	KSC	55- 29
LT5123	KSC	55- 30
LT5157	CBS	54- 41
LT5158	CBS	54- 42
LT5159	CBS	54- 43
LT5160	CBS	55- 31
LT5161	CBS	55- 32
LT5162	CBS	55- 33
LT5164	CBS	58- 9
LT5165	CBS	58- 10
LT5201	CBS	53- 25
LT5202	CBS	58- 11
LT5209	CBS	53- 26
LT5210	CBS	58- 12
LT5515	CBS	53- 68
M1	SIHG	25- 50
M2	SIHG	25- 47
M5A	SHEJ	66- 49
M5B	SHEJ	66- 50
M5C	SHEJ	66- 51
M5D	SHEJ	66- 52
M10A	SHEJ	66- 53
M10B	SHEJ	66- 54
M10C	SHEJ	66- 55
M10D	SHEJ	66- 56
M12H	MATJ	none
Repl.by 2SA308 Obs.		
M14H	MATJ	none
Repl.by 2SA309 Obs.		
M15H	MATJ	none
Repl.by 2SA310 Obs.		
M8108A	TOSJ	none
Repl.by 2SC109 Cur.		
M8108B	TOSJ	none
Repl.by 2SC109 Cur.		
M8124	TOSJ	21- 26
M8128	TOSJ	none
Repl.by 2SA372 Cur.		
MA1	SPR	18- 49
MA2	SPR	18- 31
MA28	SPR	18- 58
MA112	MOTA	29- 34
MA113	MOTA	29- 35
MA114	MOTA	29- 36
MA115	MOTA	29- 37
MA116	MOTA	29- 38
MA117	MOTA	29- 39
MA240	SELB	18- 94
MA286	MOTA	29- 40
MA287	MOTA	29- 41
MA288	MOTA	29- 42
MA393	SELB	18- 52
MA393A	SELB	18- 53
MA393B	SELB	18- 54
MA393C	SELB	18- 50
MA393E	SELB	18- 95
		69- 74
MA393G	SELB	18- 55
MA393R	SELB	18- 56
MA815	MOTA	none
Repl.by 2N1274 Cur.		
MA890	MOTA	29- 43
MA891	MOTA	29- 44
MA892	MOTA	29- 45
MA893	MOTA	29- 46
MA894	MOTA	27- 95
MA895	MOTA	27-105
MA896	MOTA	27-108
MA897	MOTA	28- 4
MA898	MOTA	24- 51
MA899	MOTA	24- 52
MA900	MOTA	24- 53
MA901	MOTA	24- 54
MA902	MOTA	24- 55
MA903	MOTA	24- 56
MA904	MOTA	24- 57
MA1702	MOTA	30- 70
MA1705	MOTA	30- 64
MA1708	MOTA	30- 62
MA2043	MOTA	29- 97
MA3227	HUG	76- 2
MA3228	HUG	76- 82
MA3229	HUG	76- 83
MA3230	HUG	76- 84
MA3231	HUG	76- 85
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MA3234	HUG	76- 88
MA4990	MIC	63- 37
MA7805	HUG	37- 72
		76- 3
MA7807	HUG	74-104
MA7809	HUG	74-105
MA7811	HUG	37- 73
		76- 4
MA7816	HUG	37- 74
		76- 5
MA7817	HUG	37- 75
		76- 6
MAS20	SELB	18- 59
MAS21	SELB	18- 60
MAS22	SELB	18- 61
MAS23	SELB	18- 62
MC104	SIHG	47- 58
MC105	SIHG	47- 59
MC106	SIHG	47- 60
MC107	SIHG	47- 61
MCS2135	MOTA	41- 78
MCS2136	MOTA	41- 79
MCS2137	MOTA	35- 69
MCS2138	MOTA	35- 70
MD501	SELB	20- 45
		68- 11
MD501B	SELB	20- 46
		68- 12
MD1123	MOTA	74-106
MD1123F	MOTA	74-107
MD1124	MOTA	74-108
MD1124F	MOTA	74-109
MD1125	MOTA	74-110
MD1125F	MOTA	75- 1
MD1133	MOTA	75- 2
MD1133F	MOTA	75- 3
MDS31	SELB	20- 66
		70- 65
MDS32	SELB	20- 63
MDS33	SELB	20- 79
MDS33A	SELB	20- 80
MDS33C	SELB	20- 76
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MDS33D	SELB	20- 77
MDS34	SELB	20- 47
		70- 37
MDS35	SELB	19- 1
MDS36	SELB	20- 67
		70- 66
MDS37	SELB	27- 58
		68- 22
MDS38	SELB	20- 24
		71- 61
MDS39	SELB	20- 78
MDS40	SELB	20- 68
ME495	APX	46- 38
ME501	none	37- 19
		75- 4
ME509	AME	76- 7
ME510	AME	75- 36
ME900A	APX	46- 45
ME901A	APX	46- 46
ME6021	UEHK	71- 96
ME6022	UEHK	71- 97
MEM519	GIC	50- 1
MF100	SIX	51- 1
MF101	SIX	51- 2
MF1161	MOTA	none
Repl.by 2N3287 Cur.		
MF1162	MOTA	none
Repl.by 2N3288 Cur.		
MF1163	MOTA	none
Repl.by 2N3289 Cur.		
MF1164	MOTA	none
Repl.by 2N3290 Cur.		
MF3304	MOTA	35- 1
MHT1802	MIN	56-100
MHT1803	MIN	56-101
MHT1804	MIN	56-102
MHT1902	MIN	56- 86
MHT1903	MIN	56- 87
MHT1904	MIN	56- 88
MHT2002	MIN	56- 89
MHT2003	MIN	56- 90
MHT2004	MIN	56- 91
MHT4401	MIN	61- 15
MHT4402	MIN	61- 16
MHT4411	MIN	61- 17
MHT4412	MIN	61- 18
MHT4413	MIN	61- 19
MHT4414	MIN	61- 20
MHT4415	MIN	61- 21
MHT4416	MIN	61- 22
MHT4417	MIN	61- 23
MHT4418	MIN	61- 24
MHT4419	MIN	61- 25
MHT4501	MIN	62- 7
MHT4502	MIN	62- 8
MHT4511	MIN	62- 9
MHT4512	MIN	62- 10
MHT4513	MIN	62- 11
MHT4514	MIN	62- 12
MHT4515	MIN	62- 13
MHT4516	MIN	62- 14
MHT4517	MIN	62- 15
MHT4518	MIN	62- 16
MHT4519	MIN	62- 17
MM486	MOTA	none
Repl.by 2N2217 Cur.		
MM487	MOTA	none
Repl.by 2N2218 Cur.		
MM488	MOTA	none
Repl.by 2N2219 Cur.		
MM511	MOTA	none
Repl.by 2N2220 Cur.		
MM512	MOTA	none
Repl.by 2N2221 Cur.		
MM513	MOTA	none
Repl.by 2N2222 Cur.		
MM719	MOTA	none
Repl.by 2N2951 Cur.		
MM799	MOTA	none
Repl.by 2N2948 Cur.		
MM800	MOTA	none
Repl.by 2N2947 Cur.		
MM801	MOTA	none
Repl.by 2N2950 Cur.		
MM1008	MOTA	none
Repl.by 2N3444 Cur.		
MM1151	MOTA	none
Repl.by 2N3279 Cur.		
MM1152	MOTA	none
Repl.by 2N3280 Cur.		
MM1153	MOTA	none
Repl.by 2N3281 Cur.		
MM1154	MOTA	none
Repl.by 2N3282 Cur.		
MM1161	MOTA	none
Repl.by 2N3287 Cur.		
MM1162	MOTA	none
Repl.by 2N3288 Cur.		
MM1163	MOTA	none
Repl.by 2N3289 Cur.		
MM1164	MOTA	none
Repl.by 2N3290 Cur.		
MM1461	MOTA	none
Repl.by 2N3506 Cur.		
MM1462	MOTA	none
Repl.by 2N3507 Cur.		
MM1736	MOTA	none
Repl.by 2N3634 Cur.		
MM1737	MOTA	none
Repl.by 2N3635 Cur.		
MM1738	MOTA	none
Repl.by 2N3636 Cur.		
MM1739	MOTA	none
Repl.by 2N3637 Cur.		
MM1943	MOTA	46- 4
MM1945	MOTA	49- 65
MM2090	MOTA	none
Repl.by 3N124 Cur.		
MM2091	MOTA	none
Repl.by 3N125 Cur.		
MM2092	MOTA	none
Repl.by 3N126 Cur.		
MM2102	MOTA	51- 32
		68- 18
		73- 69
MM2103	MOTA	50- 36
		68- 19
		73- 70
MM2264	MOTA	62- 63
MM2503	MOTA	22- 51
MM2550	MOTA	29- 21
		72-100
MM2552	MOTA	31- 75
		72-101
MM2554	MOTA	31- 78
		72-102
MM2894	MOTA	37- 23
		72- 55
MN13A	MOTA	31- 87
MN13B	MOTA	31- 88
MN13C	MOTA	31- 89
MN19	MOTA	none
Repl.by 2N505 Cur.		
MN21	MOTA	56- 5
MN24	MOTA	none
Repl.by 2N350 Cur.		
MN25	MOTA	none
Repl.by 2N351 Cur.		
MN26	MOTA	none
Repl.by 2N376 Cur.		
MN28	MOTA	56- 6
MN29	MOTA	56- 7
MN32	MOTA	56- 8
MN48	MOTA	none
Repl.by 2N669 Cur.		
MN49	MOTA	none
Repl.by 2N618 Cur.		
MP503	MOTA	56-103
MP503A	MOTA	56-104
MP507	MOTA	56-105
MP507A	MOTA	56-106
MP2137	MOTA	55- 70
MP2137A	MOTA	55- 71
MP2138	MOTA	55- 72
MP2138A	MOTA	55- 73
MP2139	MOTA	55- 74
MP2139A	MOTA	55- 75
MP2140	MOTA	55- 76
MP2140A	MOTA	55- 77
MP2141	MOTA	55- 78
MP2141A	MOTA	55- 79
MP2142	MOTA	55- 80
MP2142A	MOTA	55- 81
MP2143	MOTA	55- 82
MP2143A	MOTA	55- 83
MP2144	MOTA	55- 84
MP2144A	MOTA	55- 85
MP2145	MOTA	55- 86
MP2145A	MOTA	55- 87
MP2146	MOTA	55- 88
MP2146A	MOTA	55- 89
MPF103	MOTA	51- 28
MPF104	MOTA	51- 29
MPF105	MOTA	51- 30
MPS2894	MOTA	36- 89
		72- 56
MSP65A	MST	62-104
MSP75A	MST	62-105
MT01	SELB	50- 14
MT100	GIC	41-110
MT101	GIC	40-110
MT102	GIC	41-109
MT104	GIC	41- 91
MT106	GIC	41-106
MT107	GIC	41-107
MT696	HUG	44- 27
MT697	HUG	44- 28
MT698	HUG	44- 29
MT699	HUG	44- 30
MT706	HUG	44- 65
MT706A	HUG	44- 66
MT706B	HUG	44- 67
MT707	HUG	44- 68
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MT726	HUG	36- 58
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MT912	HUG	44- 40
MT914	HUG	49- 87
MT995	HUG	36- 57
MT1131	HUG	36- 40
MT1131A	HUG	36- 41
MT1132	HUG	36- 42
MT1132A	HUG	36- 43
MT1132B	HUG	36- 44
MT1254	HUG	36- 48
MT1255	HUG	36- 49
MT1256	HUG	36- 50
MT1257	HUG	36- 51
MT1258	HUG	36- 52
MT1259	HUG	36- 53
MT1420	HUG	36- 45
MT1613	HUG	44- 31
MT1711	HUG	44- 32
MT1893	HUG	44- 41
MT1991	HUG	36- 46
MT2303	HUG	36- 47
MT2411	HUG	36- 59
MT2412	HUG	36- 60
MTM360	MITJ	63- 4
N104B	FSC	none
Repl.by 2N957 Cur.		
NKT4	NTLB	24- 37
NKT5	NTLB	24- 31
NKT24	NTLB	24- 32
NKT25	NTLB	24- 33
NKT32	NTLB	20-104
NKT33	NTLB	20-102
NKT42	NTLB	20-105
NKT43	NTLB	20-103
NKT52	NTLB	21- 54
NKT53	NTLB	21- 55
NKT54	NTLB	21- 56
NKT62	NTLB	21- 57
NKT63	NTLB	21- 58
NKT64	NTLB	21- 59
NKT74	NTLB	21- 60
NKT101	NTLB	22- 4
		69- 54
NKT102	NTLB	21- 92
		69- 31
NKT103	NTLB	21- 64
		68-108
NKT104	NTLB	22- 5
		69- 55
NKT105	NTLB	21- 93
		69- 32
NKT106	NTLB	21- 65
		68-109
NKT107	NTLB	22- 6
		69- 56
NKT108	NTLB	21- 94
		69- 33
NKT109	NTLB	21- 66
		68-110
NKT121	NTLB	22- 7
		69- 57
NKT122	NTLB	21- 95
		69- 34
NKT123	NTLB	21- 67
		69- 1
NKT127	NTLB	22- 8
		69- 58
NKT128	NTLB	21- 96
		69- 35
NKT129	NTLB	21- 68
		69- 2
NKT131	NTLB	27- 7
NKT132	NTLB	27- 1
NKT133	NTLB	26-104
NKT141	NTLB	27- 8
NKT142	NTLB	27- 2
NKT143	NTLB	26-105
NKT144	NTLB	26-106
NKT151	NTLB	21-109
NKT152	NTLB	21-102
NKT153/25	NTLB	21- 87
NKT154/25	NTLB	21- 76
NKT162	NTLB	21-103
NKT163	NTLB	21- 88
NKT163/25	NTLB	21- 89
NKT164	NTLB	21- 77
NKT164/25	NTLB	21- 78
NKT201	NTLB	31- 63
NKT202	NTLB	29- 67
NKT203	NTLB	29- 68
NKT204	NTLB	29- 69
NKT205	NTLB	29- 70
NKT206	NTLB	29- 71
NKT207	NTLB	29- 72
NKT208	NTLB	31- 64
NKT221	NTLB	31- 52
NKT222	NTLB	29- 54
NKT222S1	NTLB	31- 62
NKT222S2	NTLB	31- 67
NKT226	NTLB	29- 55
NKT227	NTLB	29- 56
NKT228	NTLB	31- 53
NKT231	NTLB	31- 65
NKT232	NTLB	31- 66
NKT237	NTLB	31- 54
NKT238	NTLB	31- 55
NKT239	NTLB	31- 42
NKT240	NTLB	31- 43
NKT241	NTLB	31- 44
NKT242	NTLB	31- 45
NKT243	NTLB	31- 46
NKT244	NTLB	31- 47
NKT245	NTLB	31- 48
NKT246	NTLB	26- 82
NKT247	NTLB	26- 67
NKT249	NTLB	18- 73
NKT251	NTLB	31- 59
NKT252	NTLB	29- 59
NKT253	NTLB	31- 60
NKT254	NTLB	29- 60
NKT255	NTLB	24- 27
NKT263	NTLB	31- 61
NKT265	NTLB	24- 28
NKT273	NTLB	30- 1
NKT275A	NTLB	30- 2
NKT275E	NTLB	30- 3
NKT275J	NTLB	30- 4
NKT278	NTLB	29- 83
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NKT301A	NTLB	52- 75
NKT302A	NTLB	52- 76
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NKT352	NTLB	32- 3
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NKT503	NTLB	56- 44
NKT504	NTLB	56- 45
NKT618	NTLB	25- 31
NKT675	NTLB	23- 98
NKT676	NTLB	23-108
NKT677	NTLB	23- 99
NKT701	NTLB	34- 21
NKT703	NTLB	34- 22
NKT735	NTLB	69- 24
NKT751	NTLB	34- 19
NKT752	NTLB	34- 20
NKT753	NTLB	34- 48
NKT774	NTLB	34- 8
NPC151	NPC	none
Repl.by 2N2223 Cur.		
NPT800	NPC	none
Repl.by 2N3399 Cur.		
NS060	NAS	41- 1
NS061	NSC	47- 73
NS063	NSC	41- 26
NS064	NSC	47- 77
NS066	NSC	41- 34
NS067	NSC	47- 79
NS069	NSC	41- 38
NS070	NSC	47- 81
NS072	NSC	41- 43
NS073	NSC	47- 83
NS075	NSC	40- 77
NS078	NSC	40- 80
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NS383	NSC	45- 77
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NS432	NSC	47-108
NS433	NSC	48- 1
NS434	NSC	48- 2
NS435	NSC	48- 3
NS436	NSC	48- 4
NS437	NSC	48- 5
NS438	NSC	48- 6
NS475	NAS	47- 3
NS476	NAS	47- 4
NS477	NAS	47- 5
NS478	NAS	47- 6
NS479	NAS	47- 7
NS480	NAS	47- 8
NS731	NAS	47- 9
NS731A	NSC	47- 10
NS732	NAS	47- 11
NS732A	NSC	47- 12
NS733	NAS	47- 13
NS733A	NSC	47- 14
NS734	NAS	47- 15
NS734A	NSC	47- 16
NS792	NSC	none
Repl.by 2N2403 Obs.		
NS793	NSC	none
Repl.by 2N2404 Obs.		
NS949	NSC	61- 65
		71- 33
NS950	NSC	61- 66
		71- 34
NS1000	NAS	37- 78
NS1001	NAS	37- 79
NS1002	NAS	37- 58
NS1116	NSC	68- 1
		73- 5
NS1234	NSC	38- 13
NS1355	NAS	48- 80
NS1356	NSC	49- 51
NS1500	NSC	40- 13
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NS1673	NSC	37- 89
NS1674	NSC	37- 90
NS1675	NSC	37- 91
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NS1862	NSC	37- 49
NS1863	NSC	36- 69
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NS1960	NAS	48- 81
NS1972	NSC	47- 17
NS1973	NSC	47- 18
NS1974	NSC	47- 19
NS1975	NSC	47- 20
NS2100	NSC	48- 14
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NS2101	NSC	49- 52
		71- 38
NS2525	NSC	44- 70
NS3000	NSC	39- 52
		76- 8
NS3001	NSC	39- 53
		76- 9
NS3039	NSC	40- 14
		76- 10
NS3040	NSC	40- 15
		76- 11
NS3041	NSC	40- 16
		76- 12
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NS3051	NSC	39- 55
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NS3052	NSC	39- 56
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NS3053	NSC	39- 57
		76- 16
NS3108	NSC	76- 17
NS3109	NSC	76- 18
NS3110	NSC	76- 19
NS3300	NSC	48- 12
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NS6062	NSC	35- 61
NS6063	NSC	35- 62
NS6064	NSC	35- 63
NS6065	NSC	35- 64
NS6112	NSC	41- 80
NS6113	NSC	41- 81
NS6114	NSC	41- 82
NS6115	NSC	41- 83
NS6207	NSC	41- 92
		71- 1
NS6208	NSC	76- 21
NS6209	NSC	76- 22
NS6210	NSC	41- 47
		76- 23
NS6211	NSC	35- 28
		76- 24
NS6212	NSC	41- 93
NS7000	NSC	75- 6
NS7001	NAS	75- 7
NS7070	NSC	75- 8
NS7100	NSC	76- 89
NS7630	NSC	76- 25
NS8000	NSC	76- 26
NS8003	NSC	76- 27
NS9210	NSC	64- 37
		70- 60
NS9211	NSC	64- 38
		70- 61
NS9400	NSC	61- 91
NS9420	NAS	62- 88
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NS9500	NSC	61-105
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NS9609A	NSC	77- 16
NS9710	NSC	46- 37
NS9713	NSC	48- 15
NS9726	NSC	46- 98
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NS9728	NSC	43- 28
NS9729	NSC	43- 29
NS9730	NSC	43- 30
NS9731	NSC	43- 31
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OC3L	VANN	25- 80
OC3LP	VANN	25- 81
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OC4L	VANN	25- 83
OC4LP	VANN	25- 84
OC4LR	VANN	25- 85
OC4N	VANN	25- 22
OC5-O	VANN	25- 26
OC5K	VANN	25- 12
OC5L	VANN	25- 86
OC5LP	VANN	25- 87
OC5LR	VANN	25- 88
OC5N	VANN	25- 23
OC16	MULB	none
Repl.by 2N115 Obs.		
OC27	AMP	none
Repl.by 2N1315 Obs.		
OC32	NPC	19- 74
OC33	NPC	19- 87
OC34	NPC	19- 92
OC40	VANN	25- 27
OC46N	TII	23- 5
OC47N	MINA	23- 12
OC50	VANN	25- 28
OC53	APX	18- 16
OC54	APX	18- 17
OC55	APX	18- 18
OC56	APX	18- 7
OC71N	APX	24- 67
OC73	APX	none
	MULB	
Repl.by 2N283	Cur.	
OC75N	APX	26- 84
OC303	INTG	25- 62
OC304	INTG	20-106
OC304/1	BRUB	25- 63
INTG	STCB	
OC304/2	BRUB	25- 65
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OC304/3	BRUB	25- 67
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OC305	INTG	20-107
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OC306/1	BRUB	25- 64
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OC306/2	BRUB	25- 66
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OC306/3	BRUB	25- 68
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OC307	BRUB	26- 91
	INTG	
OC307-1	BRUB	25- 56
OC307-2	BRUB	25- 57
OC307-3	BRUB	25- 58
OC308	BRUB	21- 51
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OC309	BRUB	26- 92
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OC309-1	BRUB	25- 59
OC309-2	BRUB	25- 60
OC309-3	BRUB	25- 61
OC318	BRUB	31- 12
	INTG	
OC320	NPC	20- 95
OC330	INTG	19- 42
	NPC	
OC331	BRUB	18- 77
	INTG	
OC340	INTG	19- 44
	NPC	
OC341	BRUB	18- 78
	INTG	
OC342	BRUB	18- 79
	INTG	
OC343	BRUB	18- 83
	INTG	
OC350	INTG	19- 45
OC351	BRUB	18- 85
	INTG	
OC360	INTG	19- 43
	NPC	
OC361	BRUB	18- 80
	INTG	
OC362	BRUB	18- 81
	INTG	
OC363	BRUB	18- 84
	INTG	
OC364	BRUB	18- 87
	INTG	
OC390	INTG	20- 96
OC400	INTG	20- 97
OC410	INTG	20- 98
OC430	BRUB	35- 86
	INTG	
OC430K	BRUB	35- 87
	INTG	
OC440	BRUB	35- 88
	INTG	
OC440K	BRUB	36- 13
	INTG	
OC443	INTG	35- 91
OC443K	INTG	36- 20
OC445	BRUB	35- 89
	INTG	
OC445K	BRUB	36- 14
	INTG	
OC449	INTG	35- 92
OC449K	INTG	36- 21
OC450	BRUB	35- 90
	INTG	
OC450K	BRUB	36- 17
	INTG	

TYPE No.	MFRS	Pg&Line
OC460	BRUB	35- 95
	INTG	
OC460K	BRUB	36- 24
	INTG	
OC463	BRUB	36- 7
	INTG	
OC463K	BRUB	38- 4
	INTG	
OC465	BRUB	35- 93
	INTG	
OC465K	BRUB	36- 22
	INTG	
OC466	BRUB	35- 96
	INTG	
OC466K	BRUB	36- 25
	INTG	
OC467	INTG	35- 98
OC467K	INTG	36- 27
OC468	BRUB	35-102
	INTG	
OC468K	BRUB	36- 28
	INTG	
OC469	BRUB	35- 94
	INTG	
OC469K	BRUB	36- 23
	INTG	
OC470	BRUB	35- 97
	INTG	
OC470K	BRUB	36- 26
	INTG	
OC480	BRUB	36- 5
	INTG	
OC480K	BRUB	38- 3
	INTG	
OC601	TFKG	19- 67
OC602	TFKG	19- 91
OC603	TFKG	19- 93
OC604	TFKG	19- 95
OC612	TFKG	18- 88
OC613	TFKG	18- 89
OC622	TFKG	18- 74
OC623	TFKG	18- 75
OC624	TFKG	18- 76
OC700	BRUB	36- 96
OC700A	BRUB	36- 97
OC700B	BRUB	36-101
OC701	BRUB	36- 95
OC702	BRUB	36- 98
OC702A	BRUB	36- 99
OC702B	BRUB	36-100
OC703	BRUB	36- 93
OC703A	BRUB	36- 94
OC704	BRUB	36-102
OC740	BRUB	37- 1
		76- 28
OC740M	BRUB	75- 9
OC740Q	BRUB	75- 10
OC742	BRUB	36- 92
		76- 29
OC800	BRUB	73- 71
OC975	MINA	24- 13
OD650	AEG	56- 9
OD650B	AEG	56- 10
OD651	AEG	56- 11
OD651A	AEG	56- 12
OD652	AEG	none
Repl.by ADY18	Cur.	
OS13	TOSJ	75- 37
OS15	TOSJ	75- 38
OS16	TOSJ	75- 39
OS17	TOSJ	75- 40
P346	SGSI	45-110
		72- 43
P1003	AML	50- 37
		73- 72
P1004	AML	50- 38
		73- 73
P1005	AML	73- 74
PA1000	AML	37- 11
PA1001	AML	37- 13
PADT20	APX	none
Repl.by 2N2089	Cur.	
PADT21	APX	none
Repl.by 2N2090	Cur.	
PADT22	APX	none
Repl.by 2N2091	Cur.	
PADT23	APX	none
Repl.by 2N2093	Obs.	
PADT24	APX	none
Repl.by 2N2092	Cur.	
PADT25	APX	none
Repl.by 2N2091	Cur.	
PADT26	APX	none
Repl.by 2N2089	Cur.	
PADT27	APX	none
Repl.by 2N2092	Cur.	
PADT28	APX	none
Repl.by 2N2494	Cur.	
PADT29	APX	25- 33
PADT30	AMP	25- 43
PADT31	APX	none
Repl.by 2N2084	Cur.	
PADT35	APX	none
Repl.by 2N2207	Cur.	
PADT40	APX	24- 40
PADT51	APX	73- 6
PD3L	NECJ	75- 41
PD6	NECJ	75- 42
PEP2	AEIL	45- 79
		72- 4
PEP5	AEIL	45- 80
		72- 5
PEP6	AEIL	45- 81
		72- 6

TYPE No.	MFRS	Pg&Line
PEP7	AEIL	45- 82
		72- 7
PEP8	AEIL	45- 83
		72- 8
PEP9	AEIL	45- 50
PET0404	PHIL	37- 16
PET0404-1	PHIL	37- 20
PET0404-2	PHIL	37- 21
PET6003	PHIL	46- 50
PET9003	PHIL	71-102
PET9004	PHIL	72- 12
Ph241	none	75- 43
Ph241N	none	51- 33
		75- 44
Ph242	none	75- 45
Ph242N	none	51- 34
		75- 46
Ph243	none	75- 47
Ph243N	none	51- 35
		75- 48
Ph244	none	75- 49
Ph244N	none	51- 36
		75- 50
PMT011	PSI	39- 58
PMT012	PSI	39- 59
PMT013	PSI	39- 60
PMT014	PSI	39- 61
PMT015	PSI	39- 62
PMT016	PSI	39- 63
PMT018	TRW	39- 64
PMT019	TRW	39- 65
PMT020	TRW	39- 66
PMT021	TRW	40- 52
PMT022	TRW	40- 53
PMT023	TRW	40- 60
		72- 85
PMT024	TRW	39- 67
PMT025	TRW	40- 22
PMT111	TRW	39- 68
PMT112	TRW	39- 69
PMT113	TRW	39- 70
PMT114	TRW	39- 71
PMT115	TRW	43- 82
PMT116	TRW	39- 72
PMT117	TRW	46- 80
PMT118	TRW	39- 73
PMT119	TRW	39- 74
PMT120	TRW	39- 75
PMT121	TRW	40- 54
PMT122	TRW	40- 55
PMT123	TRW	44- 79
		72- 86
PMT124	TRW	43- 83
PMT125	TRW	40- 23
PMT211	TRW	49- 44
PMT212	TRW	49- 45
PMT213	TRW	48- 63
PMT214	TRW	48- 64
PMT215	TRW	48- 74
PMT216	TRW	40- 61
		72- 87
PMT217	TRW	46- 81
PMT218	TRW	44- 47
PMT219	TRW	44- 48
PMT220	TRW	43- 93
PMT221	PSI	44- 76
PMT222	TRW	40- 56
PMT223	TRW	44- 80
		72- 88
PMT224	TRW	43- 84
PMT225	TRW	40- 24
PMT1767M	TRW	40- 40
PMT1767P	TRW	40- 41
PMT1767T	TRW	40- 42
PMT1787M	PSI	44- 55
PMT1787P	PSI	40- 43
PMT1787T	PSI	44- 56
PPT720	PSI	46- 59
PT200	TRW	none
Repl.by 2N4038	Cur.	
PT201	TRW	none
Repl.by 2N4039	Cur.	
PT320	TRW	73- 75
PT515	TRW	none
Repl.by 2N1339	Cur.	
PT516	TRW	none
Repl.by 2N1340	Cur.	
PT517	TRW	none
Repl.by 2N1341	Cur.	
PT518	TRW	none
Repl.by 2N1335	Cur.	
PT519	TRW	none
Repl.by 2N1336	Cur.	
PT520	TRW	none
Repl.by 2N1337	Cur.	
PT522	TRW	none
Repl.by 2N1505	Cur.	
PT523	TRW	none
Repl.by 2N1506	Cur.	
PT530	PSI	none
Repl.by 2N1709	Cur.	
PT530-1	TRW	none
Repl.by 2N1710	Cur.	
PT530A	PSI	none
Repl.by 2N2783	Cur.	
PT531	PSI	none
Repl.by 2N2874	Cur.	
PT613	PSI	none
Repl.by 2N2782	Cur.	
PT657	TRW	none
Repl.by 2N2887	Cur.	
PT692	PSI	none
Repl.by 2N2781	Cur.	
PT703	TRW	46- 40

TYPE No.	MFRS	Pg&Line
PT706	PSI	none
Repl.by 2N919	Cur.	
PT706-1	PSI	none
Repl.by 2N920	Cur.	
PT706A	TRW	none
Repl.by 2N921	Cur.	
PT706A-1	TRW	none
Repl.by 2N922	Cur.	
PT709	TRW	none
Repl.by 2N988	Cur.	
PT709-1	TRW	none
Repl.by 2N989	Cur.	
PT720	TRW	none
Repl.by 2N2656	Cur.	
PT801	TRW	none
Repl.by 2N1409	Cur.	
PT802	TRW	none
Repl.by 2N1410	Cur.	
PT822	PSI	none
Repl.by 2N1837	Cur.	
PT851	PSI	none
Repl.by 2N1838	Cur.	
PT852	PSI	none
Repl.by 2N1839	Cur.	
PT853	PSI	none
Repl.by 2N1840	Cur.	
PT887	TRW	48- 28
PT888	TRW	48- 29
PT897	TRW	48- 30
PT898	TRW	48- 19
PT900	TRW	66-103
PT900-1	PSI	66-104
PT901	PSI	none
Repl.by 2N1899	Cur.	
PT901-1	TRW	none
Repl.by 2N1902	Cur.	
PT902	TRW	none
Repl.by 2N1900	Cur.	
PT902-1	TRW	none
Repl.by 2N1903	Cur.	
PT903	TRW	none
Repl.by 2N1901	Cur.	
PT903-1	TRW	none
Repl.by 2N1904	Cur.	
PT2622	TRW	63- 5
PT2634	TRW	63- 34
PT2690	TRW	63- 6
PT2760	PSI	46- 60
PT3501	TRW	61- 67
PT3690	TRW	63- 7
PT3691	TRW	60- 9
PT4800	TRW	49- 34
PT4830	TRW	49- 56
PT5690	TRW	60- 10
PT5692	TRW	none
Repl.by 2N4128	Cur.	
PT5694	TRW	none
Repl.by 2N4127	Cur.	
R2	RAU	18- 82
R3	RAU	18- 86
R212	TUNE	28- 55
RD316	BEM	39- 82
	BOG	
RM3001	RAYN	76- 90
RM3002	RAYN	76- 91
RM3010	RAYN	76- 92
RM3036	RAYN	51- 76
RM5008D	RAYN	50- 62
RM8007D	RAYN	50- 63
RN1020	RAYN	50- 15
RN1030	RAYN	50- 16
RN1030A	RAYN	50- 17
RN3020	RAYN	50- 18
RN3020R	RAYN	50- 19
RN3030	RAYN	50- 20
RN3030R	RAYN	50- 21
RT10	SIX	77- 18
RT20	SIX	77- 19
RT150A	RADF	52- 24
RT150B	RADF	52- 25
RT409E	RAYN	47- 27
	RHE	
RT482	RAYN	48- 65
	RHE	
RT483	RAYN	48- 66
	RHE	
RT484	RAYN	48- 67
	RHE	
RT497M	RAYN	none
Repl.by 2N2310	Cur.	
RT498M	RAYN	none
Repl.by 2N2311	Cur.	
RT656M	RAYN	none
Repl.by 2N2312	Cur.	
RT657M	RAYN	none
Repl.by 2N2313	Cur.	
RT679M	RAYN	none
Repl.by 2N697	Cur.	
RT696AM	RAYN	47- 28
	RHE	
RT696M	RAYN	none
Repl.by 2N2314	Cur.	
RT697AM	RAYN	47- 29
	RHE	
RT697M	RAYN	none
Repl.by 2N2315	Cur.	
RT698	RAYN	39- 7
RT698M	RAYN	47- 33
	RHE	
RT699AM	RAYN	none
Repl.by 2N2316	Cur.	
RT699M	RAYN	none
Repl.by 2N2316	Cur.	

TYPE No.	MFRS	Pg&Line
RT717M	RAYN	none
Repl.by 2N2314	Cur.	
RT718AM	RAYN	none
Repl.by 2N2317	Cur.	
RT718M	RAYN	none
Repl.by 2N2315	Cur.	
RT719M	RAYN	47- 34
		71- 9
RT720M	RAYN	none
Repl.by 2N2316	Cur.	
RT730M	RAYN	46- 27
		69- 60
RT731M	RAYN	46- 28
		69- 61
RT910M	RAYN	46- 30
RT929H	RAYN	39- 40
RT1115	RAYN	49- 39
		70- 77
RT1210	RAYN	49- 35
RT1252M	RAYN	46-103
RT1253M	RAYN	46-104
RT1409M	RAYN	46-105
RT1410M	RAYN	46-106
RT1420M	RAYN	60- 11
RT1613M	RAYN	none
Repl.by 2N2317	Cur.	
RT1890M	RAYN	49- 37
RT1899	RADF	none
Repl.by 2N1899	Cur.	
RT2459	RAYN	37- 24
		72- 84
RT2460	RAYN	37- 25
RT2461	RAYN	35-109
RT2462	RAYN	36- 91
		72- 98
RT2463	RAYN	35-110
RT3500	RAYN	37- 87
RT3501	RAYN	75- 11
RT4230	RAYN	none
Repl.by 2N2309	Cur.	
RT5001	RAYN	60-108
	RHE	
RT5002	RAYN	60-109
	RHE	
RT5003	RAYN	60-110
	RHE	
RT5004	RAYN	61- 1
	RHE	
RT5151	RAYN	48- 68
	RHE	
RT5152	RAYN	48- 69
	RHE	
RT5202	RAYN	none
Repl.by 2N2008	Cur.	
RT5203	RAYN	48- 70
	RHE	
RT5204	RAYN	48- 71
	RHE	
RT5212	RAYN	48- 72
	RHE	
RT5230	RAYN	none
Repl.by 2N2309	Cur.	
RT5401	RAYN	49- 2
	RHE	
RT5402	RAYN	49- 3
	RHE	
RT5403	RAYN	49- 4
	RHE	
RT5404	RAYN	49- 5
	RHE	
RT5411	RAYN	48-107
RT5412	RAYN	48-108
RT5413	RAYN	49- 1
RT5418	RAYN	none
Repl.by 2N698	Cur.	
RT5804	RAYN	48- 20
	RHE	
RT7007E	RAYN	47- 65
	RHE	
S500	SSD	35- 57
S501	SSD	35- 58
S520	SSD	35- 26
S5327E	FSC	46- 17
S5328E	FSC	43- 58
SA50	SELB	35- 29
SA51	SELB	35- 30
SA52	SELB	35- 31
SA52A	SELB	35- 32
SA52B	SELB	35- 33
SA53	SELB	35- 47
SA54	SELB	35- 48
SA55	SELB	35- 49
SA56	SELB	35- 50
SA70	SELB	35- 34
		68- 96
SA100	AML	48- 7
		76- 30
SA102	AML	76- 93
SA107	AML	76- 94
SA495	SELB	35- 20
SA495A	SELB	35- 21
SA496	SELB	35- 22
SA496A	SELB	35- 23
SA496B	SELB	35- 24
SA2254	AML	42- 62
		75- 12
SA2255	AML	42- 94
		75- 13
SA2345	AML	73- 76
SAC40	SELB	35- 51
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SAC40A	SELB	35- 52
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STC5650	SIL	none
Repl.by 2N3780 Cur.		
STC5651	SIL	none
Repl.by 2N3781 Cur.		
STC5652	SIL	none
Repl.by 2N3782 Cur.		
STX5/3010	AEIL	67 - 44
STX5/3025	AEIL	67 - 45
STX5/5010	AEIL	67 - 46
STX5/5025	AEIL	67 - 47
STX5/6010	AEIL	67 - 48
STX5/6025	AEIL	67 - 49
STX5/7010	AEIL	67 - 50
STX5/7025	AEIL	67 - 51
SU2000	AML	73 - 78
SU2020	AML	73 - 79
SU2021	AML	73 - 80
SU2022	AML	73 - 81
SU2023	AML	73 - 82
SU2024	AML	73 - 83
SU2025	AML	73 - 84
SU2026	AML	73 - 85
SU2027	AML	73 - 86
SU2028	AML	none
Repl.by 2N3934 Cur.		
SU2029	AML	none
Repl.by 2N3935 Cur.		
SU2030	AML	73 - 87
SU2031	AML	73 - 88
SU2032	AML	none
Repl.by 2N3921 Cur.		
SU2033	AML	73 - 89
SU2034	AML	none
Repl.by 2N3922 Cur.		
SU2035	AML	73 - 90
SU2037	AML	73 - 91
SYL1182	SYL	none
Repl.by 2N2354 Cur.		
SYL1326	SYL	33 - 70
SYL1327	SYL	34 - 34
SYL1380	SYL	34 - 9
SYL1454	SYL	33-106
SYL1468	SYL	34 - 10
SYL1591	SYL	34 - 11
SYL1592	SYL	24 - 58
SYL1617	SYL	34 - 12
SYL1655	SYL	28 - 56
SYL1684	SYL	26 - 13
SYL1690	SYL	25-110
SYL1697	SYL	25-105
SYL1717	SYL	26 - 1
SYL1750	SYL	34 - 13
SYL1986	SYL	none
Repl.by 2N1684 Obs.		
SYL1987	SYL	none
Repl.by 2N1685 Obs.		
SYL2120	SYL	24 - 59
SYL2189	SYL	27 - 59
SYL2245	SYL	none
Repl.by 2N1779 Cur.		
SYL2246	SYL	none
Repl.by 2N1780 Obs.		
SYL2248	SYL	none
Repl.by 2N1782 Obs.		
SYL2249	SYL	none
Repl.by 2N1783 Obs.		
SYL2250	SYL	none
Repl.by 2N1784 Obs.		
SYL2300	SYL	none
Repl.by 2N781 Cur.		
SYL2301	SYL	none
Repl.by 2N782 Cur.		
SYL2494	SYL	none
Repl.by 2N783 Cur.		
SYL3013	SYL	73 - 7
SYL3613	SYL	27 - 11
T0003	PHIL	none
Repl.by 2N207 Cur.		
T0004	PHIL	none
Repl.by 2N207A Cur.		
T0005	PHIL	none
Repl.by 2N207B Cur.		
T0012	PHIL	none
Repl.by 2N536 Cur.		
T0014	PHIL	none
Repl.by 2N535B Cur.		
T0015	PHIL	none
Repl.by 2N535A Cur.		
T0031	PHIL	none
Repl.by 2N534 Obs.		
T0033	PHIL	none
Repl.by 2N535 Cur.		
T65	none	18 - 44
T65/30	none	18 - 45
T1000	PHIL	31 - 18
T1001	PHIL	31 - 19
T1013	PHIL	none
Repl.by 2N223 Cur.		
T1025	PHIL	none
Repl.by 2N354 Obs.		
T1028	PHIL	none
Repl.by 2N128 Cur.		
T1032	PHIL	none
Repl.by 2N346 Cur.		
T1034	PHIL	none
Repl.by 2N232 Cur.		
T1038	PHIL	none
Repl.by 2N240 Cur.		
T1040	PHIL	none
Repl.by 2N352 Obs.		
T1041	PHIL	none
Repl.by 2N353 Obs.		
T1042	PHIL	none
Repl.by 2N226 Cur.		
T1043	PHIL	none
Repl.by 2N227 Cur.		
T1046	PHIL	none
Repl.by 2N224 Cur.		
T1047	PHIL	none
Repl.by 2N225 Cur.		
T1050	PHIL	18 - 15
	SPR	
T1159	PHIL	none
Repl.by 2N355 Obs.		
T1166	PHIL	none
Repl.by 2N393 Cur.		
T1167	PHIL	none
Repl.by 2N386 Obs.		
T1168	PHIL	none
Repl.by 2N387 Obs.		
T1224	PHIL	none
Repl.by 2N344 Cur.		
T1225	PHIL	none
Repl.by 2N345 Cur.		
T1250	PHIL	none
Repl.by 2N588 Cur.		
T1251	PHIL	none
Repl.by 2N499 Cur.		
T1275	PHIL	none
Repl.by 2N495 Cur.		
T1276	PHIL	none
Repl.by 2N496 Cur.		
T1282	PHIL	none
Repl.by 2N1428 Obs.		
T1312	PHIL	none
Repl.by 2N501 Cur.		
T1314	PHIL	none
Repl.by 2N504 Cur.		
T1322	PHIL	none
Repl.by 2N503 Cur.		
T1326	PHIL	none
Repl.by 2N598 Cur.		
T1327	PHIL	none
Repl.by 2N1122A Cur.		
T1328	PHIL	none
Repl.by 2N1122A Cur.		
T1334	PHIL	none
Repl.by 2N597 Cur.		
T1342	PHIL	none
Repl.by 2N502 Cur.		
T1343	PHIL	none
Repl.by 2N1118 Cur.		
T1344	PHIL	none
Repl.by 2N1119 Cur.		
T1346	PHIL	none
Repl.by 2N599 Cur.		
T1347	PHIL	none
Repl.by 2N670 Obs.		
T1381	PHIL	none
Repl.by 2N1200 Obs.		
T1382	PHIL	none
Repl.by 2N1201 Obs.		
T1383	PHIL	none
Repl.by 2N1199A Obs.		
T1392	PHIL	none
Repl.by 2N1126 Obs.		
T1393	PHIL	none
Repl.by 2N671 Obs.		
T1395	PHIL	none
Repl.by 2N600 Obs.		
T1396	PHIL	none
Repl.by 2N1124 Cur.		
T1397	PHIL	none
Repl.by 2N1125 Cur.		
T1398	PHIL	none
Repl.by 2N1127 Obs.		
T1431	PHIL	none
Repl.by 2N672 Cur.		
T1447	PHIL	none
Repl.by 2N1429 Cur.		
T1472	PHIL	none
Repl.by 2N1495 Cur.		
T1473	PHIL	none
Repl.by 2N1496 Cur.		
T1474	PHIL	none
Repl.by 2N1500 Cur.		
T1475	PHIL	none
Repl.by 2N673 Obs.		
T1501	PHIL	none
Repl.by 2N1118A Cur.		
T1510	PHIL	none
Repl.by 2N501A Cur.		
T1512	PHIL	none
Repl.by 2N601 Obs.		
T1537	PHIL	none
Repl.by 2N1123 Obs.		
T1546	PHIL	none
Repl.by 2N1129 Cur.		
T1548	PHIL	none
Repl.by 2N128 Cur.		
T1558	PHIL	none
Repl.by 2N1676 Cur.		
T1573	PHIL	none
Repl.by 2N1130 Cur.		
T1574	PHIL	none
Repl.by 2N1128 Cur.		
T1581	PHIL	none
Repl.by 2N1677 Cur.		
T1591	PHIL	none
Repl.by 2N1478 Cur.		
T1623	PHIL	none
Repl.by 2N502A Cur.		
T1655	PHIL	none
Repl.by 2N674 Cur.		
T1656	PHIL	none
Repl.by 2N675 Obs.		
T1657	PHIL	none
Repl.by 2N1747 Cur.		
T1670	PHIL	none
Repl.by 2N1199 Obs.		
T1684	PHIL	none
Repl.by 2N1267 Obs.		
T1685	PHIL	none
Repl.by 2N1268 Obs.		
T1686	PHIL	none
Repl.by 2N1269 Obs.		
T1687	PHIL	none
Repl.by 2N1270 Obs.		
T1688	PHIL	none
Repl.by 2N1271 Obs.		
T1689	PHIL	none
Repl.by 2N1272 Obs.		
T1690	PHIL	none
Repl.by 2N1726 Cur.		
T1691	PHIL	none
Repl.by 2N1727 Cur.		
T1691△	CDLF	none
Repl.by 2N1727 Cur.		
T1692	PHIL	none
Repl.by 2N1728 Cur.		
T1737	PHIL	none
Repl.by 2N1748A Cur.		
T1738	PHIL	none
Repl.by 2N1749 Cur.		
T1740	PHIL	none
Repl.by 2N1427 Cur.		
T1756	PHIL	none
Repl.by 2N1416 Cur.		
T1788	PHIL	none
Repl.by 2N240 Cur.		
T1789	PHIL	none
Repl.by 2N499 Cur.		
T1796	PHIL	27 - 76
T1806	PHIL	none
Repl.by 2N1158 Obs.		
T1807	PHIL	none
Repl.by 2N1204 Cur.		
T1808	PHIL	none
Repl.by 2N1494 Cur.		
T1814	PHIL	none
Repl.by 2N1746 Cur.		
T1822	PHIL	none
Repl.by 2N1472 Obs.		
T1826	PHIL	18 - 13
T1831	PHIL	none
Repl.by 2N1750 Obs.		
T1832	PHIL	none
Repl.by 2N1742 Cur.		
T1833	PHIL	none
Repl.by 2N1743 Cur.		
T1850	PHIL	none
Repl.by 2N1411 Cur.		
T1851	PHIL	none
Repl.by 2N1752 Cur.		
T1858	PHIL	none
Repl.by 2N1745 Cur.		
T1859	PHIL	none
Repl.by 2N1744 Cur.		
T1866	PHIL	none
Repl.by 2N393 Cur.		
T1871	PHIL	none
Repl.by 2N1663 Obs.		
T1885	PHIL	none
Repl.by 2N773 Obs.		
T1886	PHIL	none
Repl.by 2N774 Obs.		
T1887	PHIL	none
Repl.by 2N775 Obs.		
T1888	PHIL	none
Repl.by 2N776 Obs.		
T1889	PHIL	none
Repl.by 2N777 Obs.		
T1890	PHIL	none
Repl.by 2N778 Obs.		
T1891	PHIL	none
Repl.by 2N770 Obs.		
T1892	PHIL	none
Repl.by 2N772 Obs.		
T1893	PHIL	none
Repl.by 2N771 Obs.		
T1895	PHIL	none
Repl.by 2N1158A Obs.		
T1902	PHIL	none
Repl.by 2N396A Cur.		
T1903	PHIL	none
Repl.by 2N404 Cur.		
T1904	PHIL	none
Repl.by 2N428 Cur.		
T1905	PHIL	19 - 41
		70 - 89
T1930	PHIL	none
Repl.by 2N768 Cur.		
T1937	PHIL	none
Repl.by 2N779 Obs.		
T1947	PHIL	none
Repl.by 2N1500 Cur.		
T1961	PHIL	none
Repl.by 2N1754 Cur.		
T1967	PHIL	none
Repl.by 2N769 Cur.		
T1973	PHIL	none
Repl.by 2N1499A Cur.		
T1992	PHIL	none
Repl.by 2N846 Obs.		
T2015	PHIL	none
Repl.by 2N1785 Cur.		
T2016	PHIL	none
Repl.by 2N1786 Cur.		
T2017	PHIL	none
Repl.by 2N1787 Cur.		
T2018	PHIL	none
Repl.by 2N1868 Cur.		
T2019	PHIL	none
Repl.by 2N1748 Cur.		
T2020	PHIL	none
Repl.by 2N1864 Cur.		
T2021	PHIL	none
Repl.by 2N1788 Cur.		
T2022	PHIL	none
Repl.by 2N1789 Cur.		
T2023	PHIL	none
Repl.by 2N1790 Cur.		
T2024	PHIL	none
Repl.by 2N1865 Cur.		
T2025	PHIL	none
Repl.by 2N1866 Cur.		
T2026	PHIL	none
Repl.by 2N1867 Cur.		
T2028	PHIL	none
Repl.by 2N2398 Cur.		
T2029	PHIL	none
Repl.by 2N2399 Cur.		
T2030	PHIL	none
Repl.by 2N2362 Cur.		
T2050	PHIL	none
Repl.by 2N859 Cur.		
T2057	PHIL	none
Repl.by 2N858 Cur.		
T2058	PHIL	none
Repl.by 2N860 Cur.		
T2059	PHIL	none
Repl.by 2N861 Cur.		
T2060	PHIL	none
Repl.by 2N862 Cur.		
T2061	PHIL	none
Repl.by 2N863 Cur.		
T2062	PHIL	none
Repl.by 2N864 Cur.		
T2071	PHIL	none
Repl.by 2N865 Cur.		
T2088	PHIL	none
Repl.by 2N2182 Obs.		
T2089	PHIL	none
Repl.by 2N2184 Obs.		
T2110	PHIL	none
Repl.by 2N600 Obs.		
T2119	PHIL	none
Repl.by 2N1499A Cur.		
T2144	PHIL	none
Repl.by 2N2181 Obs.		
T2145	PHIL	none
Repl.by 2N2183 Obs.		
T2159	PHIL	none
Repl.by 2N599 Cur.		
T2172	PHIL	none
Repl.by 2N395 Cur.		
T2173	PHIL	none
Repl.by 2N317A Cur.		
T2186	PHIL	none
Repl.by 2N779A Cur.		
T2187	PHIL	none
Repl.by 2N846A Cur.		
T2198	PHIL	none
Repl.by 2N2086 Cur.		
T2211	PHIL	none
Repl.by 2N2048 Cur.		
T2299	PHIL	none
Repl.by 2N2087 Cur.		
T2327	PHIL	none
Repl.by 2N976 Cur.		
T2329	PHIL	none
Repl.by 2N779B Obs.		
T2330	PHIL	none
Repl.by 2N846B Obs.		
T2331	PHIL	none
Repl.by 2N977 Obs.		
T2340	PHIL	none
Repl.by 2N2380 Cur.		
T2351	PHIL	24 - 60
T2352	PHIL	none
Repl.by 2N977 Obs.		none
T2357	PHIL	none
Repl.by 2N2187 Cur.		none
T2363	PHIL	none
Repl.by 2N2185 Cur.		none
T2364	PHIL	20 - 59
T2392	PHIL	none
Repl.by 2N2375 Cur.		none
T2393	PHIL	none
Repl.by 2N2376 Cur.		none
T2415	PHIL	none
Repl.by 2N2186 Cur.		none
T2417	PHIL	none
Repl.by 2N1204A Obs.		
T2418	PHIL	none
Repl.by 2N1494A Cur.		
T2448	PHIL	none
Repl.by 2N706B Cur.		
T2452	PHIL	none
Repl.by 2N2274 Cur.		
T2453	PHIL	none
Repl.by 2N2276 Cur.		
T2454	PHIL	none
Repl.by 2N2278 Cur.		
T2455	PHIL	none
Repl.by 2N2280 Cur.		
T2469	PHIL	none
Repl.by 2N2275 Cur.		
T2470	PHIL	none
Repl.by 2N2277 Cur.		
T2471	PHIL	none
Repl.by 2N2279 Cur.		
T2472	PHIL	none
Repl.by 2N2281 Cur.		
T2478	PHIL	none
Repl.by 2N706 Cur.		
T2479	PHIL	none
Repl.by 2N2651 Cur.		
T2490	PHIL	none
Repl.by 2N2400 Cur.		
T2491	PHIL	none
Repl.by 2N2401 Cur.		
T2492	PHIL	none
Repl.by 2N2402 Cur.		
T2560	PHIL	none
Repl.by 2N2374 Cur.		
T2578	PHIL	none
Repl.by 2N2398 Cur.		
T2579	PHIL	none
Repl.by 2N2399 Cur.		
T2580	PHIL	none
Repl.by 2N2362 Cur.		
T2588	PHIL	none
Repl.by 2N2360 Cur.		
T2589	PHIL	none
Repl.by 2N2361 Cur.		
T2610	PHIL	none
Repl.by 2N2478 Cur.		
T2611	PHIL	none
Repl.by 2N2479 Cur.		
T2679	PHIL	none
Repl.by 2N2399 Cur.		
T2691	PHIL	none
Repl.by 2N2710 Cur.		
T2788	PHIL	20 - 64
T2857	PHIL	43 - 15
T2878	PHIL	20 - 57
T2896	PHIL	20 - 48
T2945	PHIL	20 - 81
T2946	PHIL	20 - 69
T3000	PHIL	none
Repl.by 2N779A Cur.		
T3002	PHIL	none
Repl.by 2N396A Cur.		
T3003	PHIL	none
Repl.by 2N404 Cur.		
T3004	PHIL	none
Repl.by 2N428 Cur.		
T3005	PHIL	none
Repl.by 2N598 Cur.		
TA1575	RCA	none
Repl.by 2N270 Cur.		
TA1575B	RCA	none
Repl.by 2N586 Cur.		
TA1614	RCA	none
Repl.by 2N301 Cur.		
TA1620A	RCA	none
Repl.by 2N647 Cur.		
TA1620B	RCA	none
Repl.by 2N649 Cur.		
TA1628	RCA	none
Repl.by 2N274 Cur.		
TA1650A	RCA	none
Repl.by 2N331 Cur.		
TA1655B	RCA	none
Repl.by 2N579 Cur.		
TA1658	RCA	none
Repl.by 2N370 Cur.		
TA1659	RCA	none
Repl.by 2N371 Cur.		
TA1660	RCA	none
Repl.by 2N372 Cur.		
TA1662	RCA	none
Repl.by 2N373 Cur.		
TA1682	RCA	none
Repl.by 2N561 Cur.		
TA1682A	RCA	none
Repl.by 2N1014 Obs.		
TA1697	RCA	none
Repl.by 2N584 Cur.		
TA1703B	RCA	none
Repl.by 2N1319 Cur.		
TA1704	RCA	none
Repl.by 2N581 Cur.		
TA1705	RCA	none
Repl.by 2N1170 Cur.		
TA1706	RCA	none
Repl.by 2N582 Cur.		
TA1730	RCA	none
Repl.by 2N591 Cur.		
TA1731	RCA	none
Repl.by 2N374 Cur.		
TA1755	RCA	none
Repl.by 2N640 Cur.		
TA1756	RCA	none
Repl.by 2N641 Cur.		
TA1757	RCA	none
Repl.by 2N642 Cur.		
TA1759	RCA	none
Repl.by 2N585 Cur.		
TA1763	RCA	none
Repl.by 2N1300 Cur.		
TA1763A	RCA	none
Repl.by 2N1301 Cur.		
TA1763B	RCA	none
Repl.by 2N1683 Cur.		
TA1765	RCA	none
Repl.by 2N176 Cur.		
TA1766	RCA	none
Repl.by 2N351 Cur.		
TA1767	RCA	none
Repl.by 2N356 Cur.		
TA1771	RCA	none
Repl.by 2N357 Cur.		
TA1772	RCA	none
Repl.by 2N358 Cur.		
TA1773	RCA	none
Repl.by 2N376 Cur.		
TA1778	RCA	none
Repl.by 2N583 Cur.		

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line
TA1782	RCA	none
Repl.by 2N578 Cur.		
TA1783	RCA	none
Repl.by 2N580 Cur.		
TA1794	RCA	none
Repl.by 2N1169 Cur.		
TA1796	RCA	none
Repl.by 2N644 Cur.		
TA1797	RCA	none
Repl.by 2N643 Cur.		
TA1798	RCA	none
Repl.by 2N645 Cur.		
TA1828	RCA	none
Repl.by 2N1224 Cur.		
TA1829	RCA	none
Repl.by 2N1225 Cur.		
TA1830	RCA	none
Repl.by 2N1384 Cur.		
TA1846	RCA	none
Repl.by 2N1177 Cur.		
TA1847	RCA	none
Repl.by 2N1178 Cur.		
TA1860	RCA	none
Repl.by 2N1180 Cur.		
TA1861	RCA	none
Repl.by 2N1179 Cur.		
TA1881	RCA	none
Repl.by 2N307 Cur.		
TA1882	RCA	none
Repl.by 2N955 Cur.		
TA1890	RCA	none
Repl.by 2N456 Cur.		
TA1891	RCA	none
Repl.by 2N457 Cur.		
TA1920	RCA	none
Repl.by 2N794 Cur.		
TA1920A	RCA	none
Repl.by 2N795 Cur.		
TA1920B	RCA	none
Repl.by 2N796 Cur.		
TA1938	RCA	none
Repl.by 2N3118 Cur.		
TA1939	RCA	none
Repl.by 2N3118 Cur.		
TA2084	RCA	62- 4
TA2090A	RCA	none
Repl.by 2N2938 Cur.		
TA2235A	RCA	none
Repl.by 2N2405 Cur.		
TA2275	RCA	none
Repl.by 2N2895 Cur.		
TA2276	RCA	none
Repl.by 2N2896 Cur.		
TA2277	RCA	none
Repl.by 2N2897 Cur.		
TA2278	RCA	none
Repl.by 2N2898 Cur.		
TA2279	RCA	none
Repl.by 2N2899 Cur.		
TA2280	RCA	none
Repl.by 2N2900 Cur.		
TA2301	RCA	none
Repl.by 40264 Cur.		
TA2307	RCA	none
Repl.by 2N3375 Cur.		
TA2333	RCA	none
Repl.by 2N2857 Cur.		
TA2359A	RCA	none
Repl.by 2N2873 Obs.		
TA2388	RCA	none
Repl.by 2N3229 Cur.		
TA2402A	RCA	none
Repl.by 2N3054 Cur.		
TA2403A	RCA	none
Repl.by 2N3055 Cur.		
TA2404	RCA	none
Repl.by 2N2953 Cur.		
TA2458	RCA	none
Repl.by 2N3439 Cur.		
TA2462	RCA	none
Repl.by 2N3118 Cur.		
TA2468A	RCA	none
Repl.by 2N3442 Cur.		
TA2469A	RCA	none
Repl.by 2N3441 Cur.		
TA2470	RCA	none
Repl.by 2N3440 Cur.		
TA2492	RCA	none
Repl.by 2N3263 Cur.		
TA2493	RCA	none
Repl.by 2N3264 Cur.		
TA2494	RCA	none
Repl.by 2N3265 Cur.		
TA2495	RCA	none
Repl.by 2N3266 Cur.		
TA2501	RCA	none
Repl.by 2N3262 Cur.		
TA2510	RCA	none
Repl.by 2N3583 Cur.		
TA2511	RCA	none
Repl.by 2N3584 Cur.		
TA2512	RCA	none
Repl.by 2N3585 Cur.		
TA2513	RCA	none
Repl.by 2N3230 Cur.		
TA2514	RCA	none
Repl.by 2N3231 Cur.		
TA2551	RCA	none
Repl.by 2N3553 Cur.		
TA2606	RCA	none
Repl.by 2N3478 Cur.		
TA2616	RCA	none
Repl.by 2N3632 Cur.		
TA2626	RCA	49- 57
		71- 50
TA2658	RCA	none
Repl.by 2N3866 Cur.		
TA2701	RCA	none
Repl.by 40460 Cur.		
TA2714	RCA	none
Repl.by 2N4012 Cur.		
TA2735	RCA	none
Repl.by 2N3932 Cur.		
TA2736	RCA	none
Repl.by 2N3933 Cur.		
TA2750	RCA	49- 58
		71- 51
TA2786	RCA	none
Repl.by 2N4068 Cur.		
TA2787	RCA	none
Repl.by 2N4069 Cur.		
TA2871	RCA	none
Repl.by 2N4240 Cur.		
TA6200	RCA	60- 12
TA-D93	none	76-106
TA-M93	none	75- 14
TAB101	RADF	76-107
TAD93	TADI	76-108
TAM93	TADI	75- 91
TC0914	GME	46- 91
		72- 66
TC0918	GME	43- 60
TC2369A	GME	46-100
		72- 92
TC2483	GME	46- 43
TC2484	GME	46- 44
TF70	SIHG	33- 80
TF71	SIHG	33- 61
TF72	SIHG	33- 18
TF75	SIHG	31- 17
TF77	SIHG	52- 60
TF77/30	SIHG	52- 61
TF80	SIHG	53- 5
TF90/30	SIHG	54- 45
TF90/60	SIHG	54- 46
TF251	SIHG	39- 17
TF252	SIHG	39- 18
TF260	SIHG	48- 21
THP35	FTHF	41- 5
THP36	FTHF	41- 9
THP45	FTHF	52- 68
	SESC	
THP46	FTHF	52- 69
THP47	FTHF	52- 70
THP61	FTHF	41- 3
THP62	FTHF	41- 4
THP106	FTHF	41- 35
THP169	FTHF	73- 92
THP170	FTHF	73- 93
THP171	FTHF	73- 94
THP172	FTHF	73- 95
THP501	SESC	24- 3
THP502	SESC	24- 4
TI155	TII	76-109
TI320	TII	24- 64
TI321	TII	24- 68
TI366	TII	53- 69
TI366A	TII	56- 46
TI367	TII	53- 70
TI367A	TII	56- 47
TI368	TII	53- 71
TI368A	TII	56- 48
TI369	TII	53- 72
TI369A	TII	56- 49
TI370	TII	53- 73
TI370A	TII	56- 50
TI376	TII	27- 60
TI377	TII	27- 61
TI378	TII	18-105
TI379	TII	18- 99
TI380	TII	18- 98
TI381	TII	18-100
TI382	TII	18-101
TI383	TII	18-102
TI384	TII	18-103
TI385	TII	28- 98
TI386	TII	28- 99
TI387	TII	28-100
TI396	TII	28-101
TI410	TII	43- 52
TI411	TII	45- 33
TI412	TII	none
	TIIB	
Repl.by 2N3704 Cur.		
TI413	TII	none
	TIIB	
Repl.by 2N3705 Cur.		
TI414	TII	none
	TIIB	
Repl.by 2N3706 Cur.		
TI415	TII	none
	TIIB	
Repl.by 2N3707 Cur.		
TI416	TII	none
	TIIB	
Repl.by 2N3708 Cur.		
TI417	TII	none
	TIIB	
Repl.by 2N3710 Cur.		
TI418	TII	none
	TIIB	
Repl.by 2N3711 Cur.		
TI419	TII	44- 71
TI420	TII	none
Repl.by 2N2387 Cur.		
TI421	TII	none
Repl.by 2N2388 Cur.		
TI422	TII	none
Repl.by 2N851 Cur.		
TI423	TII	none
Repl.by 2N852 Cur.		
TI424	TII	none
Repl.by 2N2389 Cur.		
TI425	TII	none
Repl.by 2N2390 Cur.		
TI426	TII	none
Repl.by 2N2391 Obs.		
TI427	TII	none
Repl.by 2N2392 Obs.		
TI428	TII	none
Repl.by 2N2393 Cur.		
TI429	TII	none
Repl.by 2N2394 Cur.		
TI430	TII	none
Repl.by 2N849 Cur.		
TI431	TII	none
Repl.by 2N850 Cur.		
TI432	TII	none
Repl.by 2N2395 Cur.		
TI433	TII	none
Repl.by 2N2396 Cur.		
TI440	TIIB	31- 73
TI442	TII	31- 78
TI443	TII	25- 51
TI444	TII	25- 49
TI445	TII	25- 45
TI446	TII	21- 31
TI447	TII	21- 32
TI448	TII	21- 33
TI450	TII	none
Repl.by 2N849 Cur.		
TI451	TII	none
Repl.by 2N850 Cur.		
TI457	TII	none
Repl.by 2N2391 Obs.		
TI458	TII	none
Repl.by 2N2392 Obs.		
TI459	TII	none
Repl.by 2N2395 Cur.		
TI460	TII	none
Repl.by 2N2396 Cur.		
TI461	TII	none
Repl.by 2N2393 Cur.		
TI462	TII	none
Repl.by 2N2394 Cur.		
TI474	TII	none
Repl.by 2N929 Cur.		
TI475	TII	none
Repl.by 2N930 Cur.		
TI480	TII	none
Repl.by 2N339 Cur.		
TI490	TII	none
Repl.by 2N780 Cur.		
TI602	TII	none
Repl.by 2N997 Obs.		
TI605	TII	none
Repl.by 2N2432 Cur.		
TI607	TII	none
Repl.by 2N2692 Cur.		
TI607A	TII	none
Repl.by 2N2692 Cur.		
TI608	TII	none
Repl.by 3N74 Cur.		
TI609	TII	none
Repl.by 3N76 Cur.		
TI610	TII	none
Repl.by 2N3035 Cur.		
TI611	TII	none
Repl.by 2N3034 Cur.		
TI612	TII	none
Repl.by 2N2396 Cur.		
TI621	TII	none
Repl.by 2N2804 Cur.		
TI622	TII	none
Repl.by 2N2805 Cur.		
TI623	TII	none
Repl.by 2N2806 Cur.		
TI624	TII	none
Repl.by 2N2807 Cur.		
TI625	TII	none
Repl.by 2N2060 Cur.		
TI693	TII	none
Repl.by 2N2386 Cur.		
TI694	TII	none
Repl.by 2N2497 Cur.		
TI695	TII	none
Repl.by 2N2498 Cur.		
TI696	TII	none
Repl.by 2N2499 Cur.		
TI697	TII	none
Repl.by 2N2500 Cur.		
TI711A	TII	29- 4
TI712	TII	none
Repl.by 2N2413 Cur.		
TI801	TII	none
Repl.by 2N3036 Cur.		
TI802	TII	none
Repl.by 2N3037 Cur.		
TI803	TII	none
Repl.by 2N3038 Cur.		
TI804	TII	none
Repl.by 2N3039 Cur.		
TI805	TII	none
Repl.by 2N3040 Cur.		
TI806	TII	none
Repl.by 2N3043 Cur.		
TI807	TII	none
Repl.by 2N3044 Cur.		
TI808	TII	none
Repl.by 2N3045 Cur.		
TI809	TII	none
Repl.by 2N3046 Cur.		
TI810	TII	none
Repl.by 2N3047 Cur.		
TI811	TII	none
Repl.by 2N3048 Cur.		
TI812	TII	none
Repl.by 2N3049 Cur.		
TI813	TII	none
Repl.by 2N3050 Cur.		
TI814	TII	none
Repl.by 2N3051 Cur.		
TI815	TII	none
Repl.by 2N3052 Cur.		
TI874	TII	none
Repl.by 3N34 Cur.		
TI876	TII	none
Repl.by 2N2865 Cur.		
TI884	TII	none
Repl.by 2N2415 Cur.		
TI885	TII	none
Repl.by 2N2416 Cur.		
TI886	TII	none
Repl.by 2N2411 Cur.		
TI887	TII	none
Repl.by 2N2412 Cur.		
TI888	TII	none
Repl.by 2N3554 Cur.		
TI890	TII	none
Repl.by 2N2861 Cur.		
TI891	TII	none
Repl.by 2N2862 Cur.		
TI896	TII	none
Repl.by 2N797 Cur.		
TI897	TII	none
Repl.by 2N964 Cur.		
TI898	TII	none
Repl.by 2N985 Cur.		
TI899	TII	none
Repl.by 2N2173 Cur.		
TI903	TII	none
Repl.by 2N1149 Cur.		
TI904	TII	none
Repl.by 2N1150 Cur.		
TI904A	TII	none
Repl.by 2N1151 Cur.		
TI905	TII	none
Repl.by 2N1152 Cur.		
TI910	TII	none
Repl.by 2N1153 Cur.		
TI951	TII	none
Repl.by 2N1154 Cur.		
TI952	TII	none
Repl.by 2N1155 Cur.		
TI953	TII	none
Repl.by 2N1156 Cur.		
TI1392	TII	none
Repl.by 2N2410 Cur.		
TI1722A	TII	none
Repl.by 2N1722A Cur.		
TI1724A	TII	none
Repl.by 2N1724A Cur.		
TI2150	TII	none
Repl.by 2N2150 Cur.		
TI2151	TII	none
Repl.by 2N2151 Cur.		
TI3000	TII	none
Repl.by 2N3328 Cur.		
TI3001	TII	none
Repl.by 2N3329 Cur.		
TI3015	TII	none
Repl.by 2N3570 Cur.		
TI3016	TII	43- 72
TI3018	TII	none
Repl.by 2N3333 Cur.		
TI3033	TII	none
Repl.by 2N3418 Cur.		
TI3034	TII	none
Repl.by 2N3419 Cur.		
TI3035	TII	none
Repl.by 2N3420 Cur.		
TI3036	TII	none
Repl.by 2N3421 Cur.		
TIA03	TII	27- 3
TIA04	TII	27- 4
TIA05	TII	27- 5
TIG05	TII	57- 5
TIG06	TII	57- 6
TIG07	TII	57- 7
TIG08	TII	57- 8
TIG09	TII	57- 9
TIG10	TII	57- 10
TIP04	TII	67- 87
		68- 91
TIP14	TII	63- 25
	TIIB	70- 7
TIP24	TII	63- 43
	TIIB	
TIS01	TII	75- 92
TIS02	TII	75- 93
TIS03	TII	none
	TIIB	
Repl.by 2N3702 Cur.		
TIS04	TII	none
	TIIB	
Repl.by 2N3703 Cur.		
TIS05	TIIB	none
Repl.by 2N3993 Cur.		
TIS06	TII	none
Repl.by 2N3573 Cur.		
TIS07	TII	none
Repl.by 2N3574 Cur.		
TIS11	TII	73- 96
TIS15	TII	none
Repl.by 2N3821 Cur.		
TIS16	TII	none
Repl.by 2N3822 Cur.		
TIS17	TII	none
Repl.by 2N3824 Cur.		
TIX09	TII	43- 69
TIX10	TII	43- 70
TIX155	TII	66- 33
TIX210	TII	none
Repl.by 2N3551 Cur.		
TIX211	TII	none
Repl.by 2N3552 Cur.		
TIX316	TII	none
Repl.by 2N2996 Cur.		
TIX317	TII	none
Repl.by 2N3601 Cur.		
TIX318	TII	none
Repl.by 2N3603 Cur.		
TIX608	TII	none
Repl.by 3N74 Cur.		
TIX609	TII	none
Repl.by 3N79 Cur.		
TIX610	TII	none
Repl.by 2N3035 Cur.		
TIX611	TII	none
Repl.by 2N3034 Cur.		
TIX612	TII	none
Repl.by 2N3033 Cur.		
TIX613	TII	none
Repl.by 2N2639 Cur.		
TIX614	TII	none
Repl.by 2N2640 Cur.		
TIX615	TII	none
Repl.by 2N2641 Cur.		
TIX616	TII	none
Repl.by 2N2642 Cur.		
TIX617	TII	none
Repl.by 2N2643 Cur.		
TIX618	TII	none
Repl.by 2N2644 Cur.		
TIX619	TII	none
Repl.by 2N2802 Cur.		
TIX620	TII	none
Repl.by 2N2803 Cur.		
TIX621	TII	none
Repl.by 2N2804 Cur.		
TIX622	TII	none
Repl.by 2N2805 Cur.		
TIX623	TII	none
Repl.by 2N2806 Cur.		
TIX624	TII	none
Repl.by 2N2807 Cur.		
TIX690	TII	73- 97
TIX712	TII	none
Repl.by 2N2413 Cur.		
TIX802	TII	none
Repl.by 2N3037 Cur.		
TIX803	TII	none
Repl.by 2N3038 Cur.		
TIX804	TII	none
Repl.by 2N3039 Cur.		
TIX805	TII	none
Repl.by 2N3040 Cur.		
TIX806	TII	none
Repl.by 2N3043 Cur.		
TIX807	TII	none
Repl.by 2N3044 Cur.		
TIX808	TII	none
Repl.by 2N3045 Cur.		
TIX809	TII	none
Repl.by 2N3046 Cur.		
TIX810	TII	none
Repl.by 2N3047 Cur.		
TIX811	TII	none
Repl.by 2N3048 Cur.		
TIX812	TII	none
Repl.by 2N3049 Cur.		
TIX813	TII	none
Repl.by 2N3050 Cur.		
TIX814	TII	none
Repl.by 2N3051 Cur.		
TIX815	TII	none
Repl.by 2N3052 Cur.		
TIX876	TII	none
Repl.by 2N2865 Cur.		
TIX880	TII	none
Repl.by 2N2865 Cur.		
TIX881	TII	73- 98
TIX882	TII	73- 99
TIX883	TII	73-100
TIX888	TII	none
Repl.by 2N3554 Cur.		
TIX890	TII	none
Repl.by 2N2861 Cur.		
TIX891	TII	none
Repl.by 2N2862 Cur.		
TIX895	TII	22- 57
		72-108

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line
TIX896	TII	none
Repl.by 2N797 Cur.		
TIX1392	TII	none
Repl.by 2N2410 Cur.		
TIX1393	TII	none
Repl.by 2N2410 Cur.		
TIX2000	TII	24 - 39
TIX2150	TII	none
Repl.by 2N2150 Cur.		
TIX2151	TII	none
Repl.by 2N2151 Cur.		
TIX3015	TII	none
Repl.by 2N3570 Cur.		
TIX3016	TII	43 - 73
TIX3016A	TII	43 - 74
TIX3023	TII	29 - 22
TIX3024	TII	22 - 56
TIX3032	TII	22 - 41
TIX3033	TIIB	none
Repl.by 2N3418 Cur.		
TIX3034	TII	none
Repl.by 2N3419 Cur.		
TIX3035	TIIB	none
Repl.by 2N3420 Cur.		
TIX3036	TII	none
	TIIB	
Repl.by 2N3421 Cur.		
TIXA01	TII	28 - 19
TIXA02	TII	28 - 20
TIXA03	TII	28 - 33
TIXA04	TII	28 - 34
TIXA05	TII	28 - 35
TIXL58	none	none
Repl.by TIL58 Cur.		
TIXM01	TII	22 - 34
TIXM02	TII	22 - 25
TIXM03	TII	22 - 32
TIXM04	TII	22 - 20
TIXM05	TII	22 - 40
TIXM06	TII	22 - 35
TIXM07	TII	22 - 31
TIXM08	TII	22 - 36
TIXM10	TIIB	22 - 49
TIXM11	TIIB	22 - 50
TIXM12	TII	50 - 7
TIXM13	TII	19 - 4
TIXM14	TII	21 - 24
TIXM15	TII	21 - 25
TIXM16	TII	21 - 22
TIXM17	TII	21 - 23
TIXM18	TII	21 - 27
TIXM19	TII	21 - 28
TIXM201	TII	22 - 18
TIXM202	TII	22 - 19
TIXM203	TII	22 - 33
TIXM204	TII	22 - 27
TIXM205	TII	22 - 28
TIXM206	TII	22 - 29
TIXM207	TII	22 - 16
TIXM301	TII	50 - 12
TIXP07	TII	59 - 55
TIXS09	TII	43 - 71
TIXS11	TII	50 - 39
	TIIB	73-101
TIXS28	TII	43 - 54
TIXS29	TII	43 - 42
TIXS30	TII	43 - 43
TIXS31	TII	43 - 44
TIXS33	TII	none
	TIIB	
Repl.by TIS39 Cur.		
TIXS37	TIIB	none
Repl.by TIS37 Cur.		
TIXS41	TII	none
Repl.by 2N4859 Cur.		
TIXS42	TII	none
	TIIB	
Repl.by TIS42 Cur.		
TJ1	STCB	29 - 50
TJ2	STCB	29 - 51
TJ3	STCB	29 - 52
TK20	STCB	none
Repl.by ASY66 Obs.		
TK20A	STCB	25 - 6
TK20B	STCB	27 - 32
TK20C	STCB	73 - 15
TK21	STCB	30 - 43
TK21A	STCB	24 - 93
TK21B	STCB	27 - 21
TK21C	STCB	73 - 16
TK23	STCB	30 - 6
TK23A	STCB	29 - 61
TK23C	STCB	30 - 7
TK24	STCB	none
Repl.by ASY64 Obs.		
TK24A	STCB	24 - 97
TK24B	STCB	27 - 26
TK24C	STCB	73 - 17
TK25	STCB	none
Repl.by ASY60 Obs.		
TK25A	STCB	25 - 17
TK25B	STCB	27 - 33
TK25C	STCB	73 - 18
TK26	STCB	30 - 44
TK26A	STCB	24 - 94
TK26B	STCB	27 - 22
TK27	STCB	30 - 53
TK27A	STCB	24 - 98
TK27B	STCB	27 - 27
TK28	STCB	30 - 74
TK28C	STCB	30 - 75
TK30	STCB	30 - 65
TK30C	STCB	30 - 66
TK31	STCB	30 - 81
TK31C	STCB	30 - 82
TK33C	STCB	34 - 27
TK34C	STCB	25 - 18
TK35	STCB	none
Repl.by ASY56 Cur.		
TK35C	STCB	30 - 45
TK36	STCB	none
Repl.by ASY57 Cur.		
TK36C	STCB	30 - 55
TK37	STCB	none
Repl.by ASY58 Cur.		
TK37C	STCB	30 - 71
TK38	STCB	none
Repl.by ASY59 Cur.		
TK38C	STCB	30 - 86
TK40	STCB	30 - 29
TK40A	STCB	29 - 73
TK40C	STCB	30 - 34
TK41	STCB	29 -101
TK41C	STCB	30 - 11
TK42	STCB	30 - 21
TK42C	STCB	30 - 12
TK44	STCB	none
Repl.by ASY51 Cur.		
TK44C	STCB	27 - 77
TK45	STCB	none
Repl.by ACY29 Cur.		
TK45C	STCB	30 - 22
TK46	STCB	none
Repl.by ASY50 Cur.		
TK46C	STCB	29 - 95
TK47C	STCB	29 - 96
TK48C	STCB	27 - 78
TK49C	STCB	24 - 61
TK70	STCB	44 -107
TK71	STCB	44 -105
TK72	STCB	44 -106
TK200A	STCB	65 -104
TK201A	STCB	65 -105
TK202A	STCB	none
Repl.by 2N2234 Cur.		
TK203A	STCB	none
Repl.by 2N2235 Cur.		
TK250A	STCB	38 - 10
TK251A	STCB	38 - 11
TK252A	STCB	none
Repl.by 2N2236 Cur.		
TK253A	STCB	none
Repl.by 2N2237 Cur.		
TK254A	STCB	48 - 91
TK255A	STCB	45 - 52
TK256A	STCB	45 - 53
TK257A	STCB	45 - 88
TK258A	STCB	45 - 89
		71 - 92
TK259A	STCB	45 - 90
		71 - 93
TK264A	STCB	45 - 54
TK400A	STCB	53 - 87
TK401A	STCB	53 - 88
TK402A	STCB	53 - 89
TK403A	STCB	53 - 90
TMT696	TEC	41 - 76
TMT697	TEC	41 - 84
TMT839	TEC	41 - 62
TMT840	TEC	41 - 63
TMT841	TEC	41 - 68
TMT842	TEC	41 - 64
TMT843	TEC	41 - 69
TMT1131	TEC	35 - 65
TMT1132	TEC	35 - 60
TMT1543	TEC	39 - 21
TMT2427	TEC	39 - 22
TN51	SSP	62 - 64
		69 -108
TN52	SSP	62 - 65
		70 - 23
TN55	SPR	none
Repl.by 2N4383 Cur.		
TN56	SPR	none
Repl.by 2N4384 Cur.		
TN71	SSP	61 -109
		69 -109
TN72	SSP	61 -110
		70 - 24
TN301	SSP	63 - 47
		70 - 8
TN302	SSP	63 - 48
		70 - 9
TN303	SSP	63 - 49
		70 - 10
TN304	SSP	63 - 50
		69 - 62
TP1	STCB	27 - 62
TP2	STCB	27 -106
TR03	ITC	33 - 77
TR04	ITC	33 - 87
TR05	ITC	33 - 78
TR07	ITC	33 - 79
TR08	ITC	33 - 88
TR09	ITC	33 - 83
TR10	ITC	27 - 63
TR11	ITC	26 - 52
TR12	ITC	20 -110
TR13	ITC	21 - 1
TR14	ITC	21 - 2
TR15	ITC	26 - 53
TR16	ITC	26 - 54
TR17	ITC	26 - 55
TR18	ITC	21 - 11
TR19	ITC	26 -102
TR20	ITC	24 - 62
TR21	ITC	26 - 56
TR35	ITC	19 - 88
TR43A	ITC	27 - 89
TR63	ITC	24 - 71
TR64	ITC	24 - 74
TR65	ITC	24 - 83
TR77	ITC	19 - 15
TR81	ITC	27 - 64
TR87	ITC	21 - 15
TR88	ITC	21 - 3
TR104	ITC	27 - 81
TR105	ITC	19 - 16
TR109	ITC	19 - 62
TR123	ITC	28 - 49
TR139	ITC	19 - 18
TR167	ITC	33 - 58
TR182	ITC	33 - 86
TR183	ITC	33 - 92
TR184	ITC	33 - 98
TR193	ITC	33 - 27
TR194	ITC	33 - 24
TR211	ITC	33 - 28
TR212	ITC	33 - 32
TR213	ITC	33 - 56
TR214	ITC	33 -109
TR215	ITC	27 - 82
TR216	ITC	33 - 25
TR217	ITC	19 - 63
TR218	ITC	19 - 19
TR269	ITC	26 - 10
TR381	ITC	29 - 64
TR382	ITC	29 - 74
TR396	ITC	28 - 50
TR460	ITC	29 - 65
TR461	ITC	29 - 66
TR526	ITC	28 - 9
TR527	ITC	28 - 11
TR758A	ITC	24 - 69
TR759	ITC	24 -105
TR760	ITC	19 -107
TR761	ITC	27 - 12
TR762	ITC	27 - 20
TR763	ITC	20 - 9
TR764	ITC	28 - 78
TR792	ITC	24 -109
TR801	ITC	24 - 29
TR802	ITC	24 - 30
TR803	ITC	24 - 35
TR804	ITC	24 - 38
TRM13	ITC	21 - 4
TRM14	ITC	21 - 5
TRM15	ITC	26 - 57
TRM16	ITC	26 - 58
TRM17	ITC	26 - 59
TRM21	ITC	26 - 60
TRM34	ITC	19 - 75
TRM81	ITC	21 - 6
TRS100A	ITC	48 - 38
TRS501LC	ITC	60 - 69
TRS601LC	ITC	60 - 70
TRS1004LP	ITC	61 - 28
TRS1005LP	ITC	62 - 66
TRS1204LP	ITC	61 - 29
TRS1205LP	ITC	62 - 67
TRS1404LP	ITC	61 - 30
TRS1405LP	ITC	62 - 68
TRS1604LP	ITC	61 - 31
TRS1605LP	ITC	62 - 69
TRS1804LP	ITC	61 - 32
TRS1805LP	ITC	62 - 70
TRS2004LP	ITC	61 - 33
TRS2005LP	ITC	62 - 71
TRS2254LP	ITC	61 - 34
TRS2255LP	ITC	62 - 72
TRS2504LP	ITC	61 - 35
TRS2505LP	ITC	62 - 73
TRS2754LP	ITC	61 - 36
TRS2755LP	ITC	62 - 74
TRS3014LP	ITC	61 - 37
TRS3015LC	ITC	60 - 96
	SOD	
TRS3015LP	ITC	62 - 75
TRS3016LC	ITC	60 - 97
TRS3255LP	ITC	62 - 76
TRS3504LP	ITC	61 - 38
TRS3505LP	ITC	62 - 77
TRS3754LP	ITC	61 - 39
TRS3755LP	ITC	62 - 78
TRS4014LP	ITC	61 - 40
TRS4015LC	ITC	60 - 98
	SOD	
TRS4015LP	ITC	62 - 79
TRS4016LC	ITC	60 - 99
TRS4254LP	ITC	61 - 41
TRS4255LP	ITC	62 - 80
TRS4405S	ITC	none
Repl.by 2N3861 Cur.		
TRS4504LP	ITC	61 - 42
TRS4505LP	ITC	62 - 81
TRS4754LP	ITC	61 - 43
TRS4755LP	ITC	62 - 82
TRS5015LC	ITC	60 -100
TRS5016LC	ITC	60 -101
TRS6015LC	ITC	60 -102
TRS6016LC	ITC	60 -103
TS1	STCB	19 - 68
TS2	STCB	19 - 69
TS3	STCB	19 - 70
TS7	STCB	21 - 16
TS8	STCB	21 - 17
TS9	STCB	27 - 15
TS13	STCA	26 - 85
	STCB	
TS14	STCA	26 - 86
	STCB	
TS15	STCB	21 - 7
TS17	STCB	27 - 16
TS176	TSE	53 - 74
	TUNE	
TS601	TUNE	29 - 84
TS602	TUNE	29 - 85
TS603	TUNE	29 - 86
TS604	TUNE	29 - 87
TS605	TUNE	27 - 90
TS606	TUNE	27 - 91
TS609	TUNE	57 - 11
TS610	TUNE	56 - 51
TS612	TSE	none
	TUNE	
Repl.by 2N378 Cur.		
TS613	TSE	none
	TUNE	
Repl.by 2N379 Cur.		
TS614	TSE	none
	TUNE	
Repl.by 2N380 Cur.		
TS616	TSE	none
	TUNE	
Repl.by 2N381 Cur.		
TS617	TSE	none
	TUNE	
Repl.by 2N382 Cur.		
TS618	TSE	none
	TUNE	
Repl.by 2N383 Cur.		
TS619	TSE	21 - 43
	TUNE	
TS748	TUNE	56 - 81
TS1000	TUNE	29 - 48
TT500	TYC	65 - 51
TT501	TYC	65 - 52
TT502	TYC	65 - 53
TW135	SPR	37 - 86
		76 - 52
TX116-1	SONY	38 - 33
TX116-2	SONY	38 - 34
TX116-3	SONY	38 - 35
u89	SIX	51 - 37
u106	SIX	none
Repl.by 2N2841 Cur.		
u107	SIX	none
Repl.by 2N2842 Cur.		
u108	SIX	none
Repl.by 2N2843 Cur.		
u109	SIX	none
Repl.by 2N2844 Cur.		
u182	SIX	51 - 74
u205	SIX	51 - 38
u206	SIX	51 - 39
u207	SIX	51 - 40
u1177	AML	none
Repl.by 2N3365 Cur.		
u1178	AML	none
Repl.by 2N3366 Cur.		
u1179	AML	none
Repl.by 2N3367 Cur.		
u1180	AML	none
Repl.by 2N3368 Cur.		
u1181	none	none
Repl.by 2N3369 Cur.		
u1182	AML	none
Repl.by 2N3370 Cur.		
u1321	none	none
Repl.by 2N3966 Cur.		
u1322	AML	none
Repl.by 2N3967 Cur.		
u1323	AML	none
Repl.by 2N3968 Cur.		
u1324	AML	none
Repl.by 2N3969 Cur.		
u1327	AML	73 -102
u3000	AML	73 -103
u3001	AML	73 -104
u3002	AML	73 -105
u3010	AML	73 -106
u3011	AML	73 -107
u3012	AML	73 -108
u7003	PHIL	43 - 37
		72 - 60
U89	none	50 - 40
		76 - 53
U182	none	51 - 75
U205	none	51 - 41
		75 - 15
U206	none	51 - 42
		75 - 16
U207	none	51 - 43
		75 - 17
U287	none	73 -109
U1181	AML	none
Repl.by 2N3369 Cur.		
U1321	AML	none
Repl.by 2N3966 Cur.		
U1327	none	73 -110
U3000	none	74 - 1
U3001	none	74 - 2
U3002	none	74 - 3
U3010	none	74 - 4
U3011	none	74 - 5
U3012	none	74 - 6
UC20	UCC	51 - 7
UC21	UCC	51 - 4
UC22	UCC	51 - 8
UC23	UCC	51 - 5
UC40	UCC	50 - 4
UC41	UCC	50 - 2
UC42	UCC	50 - 5
UC43	UCC	50 - 3
UC100	UCC	51 - 44
UC105	UCC	51 - 45
UC110	UCC	51 - 46
UC115	UCC	51 - 47
UC120	UCC	51 - 48
UC125	UCC	51 - 49
UC130	UCC	51 - 50
UC135	UCC	51 - 51
UC150	UCC	none
Repl.by 2N4416 Cur.		
UC240	UCC	51 - 52
UC258	UCC	51 - 53
UC300	UCC	50 - 41
UC305	UCC	50 - 42
UC310	UCC	50 - 43
UC315	UCC	50 - 44
UC320	UCC	50 - 45
UC325	UCC	50 - 46
UC330	UCC	50 - 47
UC335	UCC	50 - 48
UC340	UCC	50 - 49
UC450	UCC	50 - 64
UC451	UCC	50 - 65
UC701	UCC	51 - 54
UC703	UCC	51 - 55
UC704	UCC	51 - 56
UC705	UCC	51 - 57
UC707	UCC	51 - 73
UC750	UCC	51 - 58
UC751	UCC	51 - 59
UC752	UCC	51 - 60
UC753	UCC	51 - 61
UC754	UCC	51 - 3
UC801	UCC	50 - 50
UC803	UCC	50 - 51
UC804	UCC	50 - 52
UC850	UCC	50 - 53
UC852	UCC	50 - 54
UC853	UCC	50 - 55
UC854	UCC	50 - 56
UC855	UCC	50 - 57
UC900	UCC	44 -101
UC1100	UCC	37 - 50
UC1700	UCC	none
Repl.by 3N163 Cur.		
UC2130	UCC	51 - 68
UC2132	UCC	51 - 69
UC2134	UCC	51 - 70
UC2136	UCC	51 - 71
UC2138	UCC	51 - 72
UCX1702	UCC	none
Repl.by 3N164 Cur.		
UCX2700	UCC	none
Repl.by 3N166 Cur.		
UCX2701	UCC	none
Repl.by 3N165 Cur.		
UD1000	SPR	75 - 18
UD1001	SPR	76 - 54
UD2000	SPR	75 - 19
USA55191/35	none	39 - 1
		71 - 30
USAF501ES001M		43 -106
	none	69 - 71
USAF505ES105	none	27 - 65
USAF506ES010M		56 - 52
	none	
USAF508ES020P		38 - 17
	none	
USAF508ES021P		38 - 18
	none	
USAF509ES025P		28 - 96
	none	
USAF510ES030M		47 - 74
	none	
USAF510ES031M		47 - 75
	none	
USAF511ES035P		*48 - 39*
	none	
USAF511ES036P		48 - 40
	none	70 - 25
USAF512ES040P		27 - 66
	none	
USAF513ES045P		28 - 97
	none	
USAF514ES050M		65 -106
	none	70 - 33
USAF515ES045M		36 - 54
	none	70 - 75
USAF515ES046M		36 - 55
	none	70 - 76
USAF516ES047M		37 - 9
	none	70 - 78
USAF516ES048M		37 - 10
	none	70 - 79
USAF517ES060M		37 -105
	none	70 - 32
USAF518ES065M		37 - 7
	none	
USAF518ES066M		44 - 6
	none	
USAF519ES067M		44 - 7
	none	
USAF519ES068M		44 - 8
	none	
USAF520ES070M		38 - 1
	none	70 - 26
USAF521ES071M		38 - 2
	none	70 - 27
USAF522ES067M		71 - 55
	none	
USAF522ES075M		46 - 32
	none	71 - 56
USAF522ES076M		46 - 33
	none	
USAF523ES077M		46 - 34
	none	71 - 57

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line
USAF523ES078M		46- 35
	none	71- 58
USAF524ES080M		66-106
	none	
USAF525ES085M		65-107
	none	69- 64
USAF526ES090P		73- 1
	none	
UST10	UST	29- 23
UST19	UST	29- 30
UST81	UST	29- 24
UST87	UST	29- 26
UST88	UST	29- 29
UST722	UST	29- 25
UST760	UST	28- 36
UST761	UST	28- 57
UST762	UST	28- 76
UST763	UST	28- 80
UST764	UST	28- 79
V6/2R	NTLB	21- 61
V6/2RJ	NTLB	32- 8
V6/4R	NTLB	21- 69
V6/4RJ	NTLB	21- 71
V6/8R	NTLB	21- 97
V6/8RJ	NTLB	21- 98
V10/1S	NTLB	21- 34
V10/1SJ	NTLB	21- 99
V10/2S	NTLB	21- 35
V10/2SJ	NTLB	21- 36
V10/15A	NTLB	26- 80
V10/30A	NTLB	26- 83
V10/50A	NTLB	26- 97
V10/50B	NTLB	26- 98
V15/10DP	NTLB	54- 47
V15/10P	NTLB	54- 48
V15/15NP	NTLB	56- 13
V15/20DP	NTLB	54- 49
V15/20IP	NTLB	52- 77
V15/20P	NTLB	54- 50
V15/20R	NTLB	18- 57
V15/30DP	NTLB	54- 51
V15/30NP	NTLB	56- 14
V15/30P	NTLB	54- 52
V30/10DP	NTLB	54- 53
V30/10P	NTLB	54- 54
V30/15NP	NTLB	56- 15
V30/20DP	NTLB	54- 55
V30/20IP	NTLB	52- 78
V30/20P	NTLB	54- 56
V30/30DP	NTLB	54- 57
V30/30NP	NTLB	56- 16
V30/30P	NTLB	54- 58
V60/10DP	NTLB	54- 59
V60/10P	NTLB	54- 60
V60/20DP	NTLB	54- 61
V60/20IP	NTLB	52- 79
V60/20P	NTLB	54- 62
V60/30DP	NTLB	54- 63
V60/30P	NTLB	54- 64
V120RH	ECD	42- 63
		77- 20
V220	ECD	44-102
		68- 8
		Repl.by 2N1936 Cur.
V221	ECD	44-103
		68- 9
		Repl.by 2N1937 Cur.
V222	ECD	44-104
		68- 10
V327	NECJ	42- 9
V405	SGSI	36- 90
		72- 57
V415	NECJ	43- 75
V500	VSS	none
Repl.by 2N3374 Cur.		
V600	ECD	62- 1
V601	ECD	62- 2
V602	ECD	62- 3
V610	ECD	62-106
V611	ECD	62-107
V612	ECD	62-108
V800	VSS	63- 35
VB701	EEVB	19- 81
VB704	EEVB	19- 82
VB709	EEVB	19- 64
VH10	none	70- 80
VI1010	ECD	50- 8
VI1023	ECD	50- 66
WX115UA	WESY	none
Repl.by 2N1809 Cur.		
WX115UB	WESY	none
Repl.by 2N1810 Cur.		
WX115UC	WESY	none
Repl.by 2N1811 Cur.		
WX115UD	WESY	none
Repl.by 2N1812 Cur.		
WX115VA	WESY	none
Repl.by 2N1809 Cur.		
WX115VB	WESY	none
Repl.by 2N1810 Cur.		
WX115VC	WESY	none
Repl.by 2N1811 Cur.		
WX115VD	WESY	none
Repl.by 2N1812 Cur.		
WX115WA	WESY	none
Repl.by 2N1816 Cur.		
WX115WB	WESY	none
Repl.by 2N1817 Cur.		
WX115WC	WESY	none
Repl.by 2N1818 Cur.		
WX115WD	WESY	none
Repl.by 2N1819 Cur.		
WX115XA	WESY	none
Repl.by 2N1823 Cur.		
WX115XB	WESY	none
Repl.by 2N1824 Cur.		

TYPE No.	MFRS	Pg&Line
WX115XC	WESY	none
Repl.by 2N1825 Cur.		
WX115XD	WESY	none
Repl.by 2N1826 Cur.		
WX118UA	WESY	none
Repl.by 2N2226 Cur.		
WX118UB	WESY	none
Repl.by 2N2227 Cur.		
WX118UC	WESY	none
Repl.by 2N2228 Cur.		
WX118XA	WESY	none
Repl.by 2N2230 Cur.		
WX118XB	WESY	none
Repl.by 2N2231 Cur.		
WX118XC	WESY	none
Repl.by 2N2232 Cur.		
WX1015	WESY	none
Repl.by 2N1015 Cur.		
WX1015A	WESY	none
Repl.by 2N1015A Cur.		
WX1015B	WESY	none
Repl.by 2N1015B Cur.		
WX1015C	WESY	none
Repl.by 2N1015C Cur.		
WX1015D	WESY	none
Repl.by 2N1015D Cur.		
WX1015E	WESY	none
Repl.by 2N1015E Cur.		
WX1015F	WESY	none
Repl.by 2N1015F Obs.		
WX1016	WESY	none
Repl.by 2N1016 Cur.		
WX1016A	WESY	none
Repl.by 2N1016A Cur.		
WX1016B	WESY	none
Repl.by 2N1016B Cur.		
WX1016C	WESY	none
Repl.by 2N1016C Cur.		
WX1016D	WESY	none
Repl.by 2N1016D Cur.		
WX1016E	WESY	none
Repl.by 2N1016E Cur.		
WX1016F	WESY	none
Repl.by 2N1016F Obs.		
X5	SIX	none
Repl.by 2N3631 Cur.		
X30	BEM	63- 21
	BOG	
X30A	BEM	62-109
	BOG	
X31	BOG	63- 22
X31A	BEM	62-110
	BOG	
X32	BOG	63- 1
X32A	BEN	63- 2
	BOG	
X110	BACE	53- 91
X113	BACE	54- 65
X133	BACE	54- 66
X134	BACE	55- 35
X137	BACE	55- 36
X351A	TII	none
Repl.by 2N1936 Cur.		
X351B	TII	none
Repl.by 2N1937 Cur.		
X1004	GME	74- 7
XA101	AEIE	25-107
XA102	AEIE	26- 3
XA103	AEIE	25-100
XA104	AEIE	25-106
XA111	AEIE	25-108
XA112	AEIE	26- 4
XA121	AEIE	23- 62
XA122	AEIE	23- 63
XA123	AEIE	23- 64
XA124	AEIE	23- 65
XA126	AEIE	23- 66
XA131	AEIE	26- 48
XA141	AEIE	26- 21
XA142	AEIE	26- 35
XA143	AEIE	26- 38
XA151	AEIE	27- 18
XA152	AEIE	27- 19
XA161	AEIE	28- 85
XA162	AEIE	28- 87
XA701	AEIE	33-105
XA702	AEIE	33-107
XA703	AEIE	33-108
XB102	AEIE	27- 67
XB103	AEIE	27- 68
XB104	AEIE	27- 69
XB112	AEIE	27- 70
XB113	AEIE	27- 71
XB121	AEIE	19- 65
XB401	TIIB	61- 88
XB404	TIIB	63- 26
XB413	TIIB	63- 27
XC101	AEIE	29- 31
XC121	AEIE	52- 26
XC131	AEIE	52- 29
XC141	AEIE	56- 17
XC142	AEIE	56- 18
XC155	AEIE	54- 91
XC156	AEIE	54- 92
XC161	AEIE	52- 27
XC163	AEIE	52- 30
XC171	AEIE	52- 31
XC703	AEIE	60- 65
XC713	AEIE	60- 88
XC723	AEIE	64- 68
XCXC121	none	52- 28
XD5081	WESY	53- 27
XD5082	WESY	53- 28
XFT2	HIVB	19- 66

TYPE No.	MFRS	Pg&Line
XH10	MIN	none
Repl.by H10 Obs.		
XS101	AEIE	28- 2
XS104	AEIE	27-107
XS121	AEIE	28- 3
XT1A	BRDB	48- 22
	LUCB	
XT1B	BRDB	48- 23
	LUCB	
XT1C	BRDB	48- 24
	LUCB	
XT1D	BRDB	48- 25
	LUCB	
XT2A	BRDB	66-107
	LUCB	
XT2B	BRDB	66-108
	LUCB	
XT2C	BRDB	66-109
	LUCB	
XT2D	BRDB	67- 1
	LUCB	
XT100	SPR	30- 95
XT200	SPR	31- 36
XT200A	SPR	31- 77
XT300	SPR	22- 30
		72- 13
XT400	SPR	22- 42
XT515	PSI	60- 13
XT516	PSI	60- 14
XT517	PSI	60- 15
XT518	PSI	60- 16
XT519	PSI	60- 17
XT520	PSI	60- 18
ZFT12	FERB	51- 62
ZFT12A	FERB	51- 63
ZFT14	FERB	51- 64
ZFT14A	FERB	51- 65
ZFT16	FERB	51- 66
		74- 8
ZFT18	FERB	51- 67
		74- 9
ZT27	FERB	46- 29
ZT50	FERB	60- 89
ZT153	FERB	36- 74
ZT154	FERB	36- 75
ZT190	FERB	45- 91
		71- 72
ZT191	FERB	45- 92
		71- 73
ZT192	FERB	45- 93
		71- 74
ZT193	FERB	45- 94
		71- 75
ZT917	FERB	none
Repl.by 2N917 Cur.		
ZT918	FERB	43- 53
ZT929	FERB	none
Repl.by 2N929 Cur.		
ZT1420	FERB	48- 31
ZT1511	FERB	64- 99
ZT1512	FERB	64-100
ZT1513	FERB	64-101
ZT1514	FERB	64-102
ZT1703	FERB	64-103
ZT2631	FERB	60- 19
ZT3053	FERB	none
Repl.by 2N3053 Cur.		
ZT3229	FERB	none
Repl.by 2N3229 Obs.		
ZT3262	FERB	none
Repl.by 2N3262 Cur.		
ZT3439	FERB	none
Repl.by 2N3439 Cur.		
ZT3512	FERB	none
Repl.by 2N3512 Cur.		
ZT3600	FERB	none
Repl.by 2N3600 Cur.		
ZT3866	FERB	none
Repl.by 2N3866 Cur.		

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	GT20					25	25 Ø	25		10uØ	5.0Ø	1.0m	42	500nb		15	35p	A	TO5	
2	2N1664†		5.0M	2.6m	#J	45	40	30	200m	10u	6.0Ø	1.0m	120 Ø	900nØb	39 Ø		25pØ		TO5	
3#	EW69	.65m	30.M	1.5m		20	20				6.0Ø	1.0mØ	30					D		
4	CK766	2.0m	10.M		#A	30			200m	1.0u			45				12			
5	CK766A	2.0m	10.M		#A	30			200m	1.0u			45				12			
6	2N232	9.0m*	20M*	1.0m	*J	4.5	4.5		3.0m	6.0u	3.0Ø	500uØ	9.0 Δ	5.0uØb	100 Ø		6.0pØ	S	TO24	
7	OC56	10m†		667u	*J	7.0	3.0	7.0	5.0m	1.5uØ								A	R19	
8#	2SB157	10m†	.50M	667u	*J	7.0		7.0	5.0m	10uØ	2.0	.25m	35					A	R19	
9#	2SB158	10m	.70M	667u	*J	7.0		7.0	5.0m	10uØ	.50	.25m	55					A	R19	
10#	2SB160	10m	.70M	667u	*J	7.0		7.0	5.0m	10uØ	2.0	3.7m	75 †					A	R19	
11#	2T14	10m	.70M							10u			24							
12#	2SB159	10m	.90M	667u	*J	7.0		7.0	5.0m	10uØ	.50	.25m	80					A	R19	
13	T1826	10m	25M*		#S	5.0				10u	3.0Ø	1.0mØ	300	5.0ub	60		6.0p	MA	TO24	
14	SB100	10m	45M*		*J	30	4.5		5.0m	500n	3.0Ø	500uØ	20	250nb	70	4.0	3.5p	S	TO24	
15	T1050	10m	90.M*			7.0			20m	2.0uØ										
16	OC53	10m	350MΔ	667u	*J	7.0	3.0	7.0	5.0m	1.5uØ	.50	.25m	35					A	R19	
17	OC54	10m†	550MΔ	667u	*J	7.0	3.0	7.0	5.0m	1.5uØ	.50	.25m	55					A	R19	
18	OC55	10m†	800MΔ	667u	*J	7.0	3.0	7.0	5.0m	1.5uØ	.50	.25m	80					A	R19	
19#	AC129	12m			*J	9.0		5.0	10m	12u	2.0	.25m	50	10u	4.0k	5.0		A	u16	
20#	AF128	12m	8.0M		*J	9.0		5.0	10m	12u	2.0	.25m	50					A	u16	
21	SO2	15m	10M*Δ	370u	*J	3.0	3.0		5.0m	10u	3.0Ø	500uØ	10 Δ	6.0ub	100 Ø		6.0pØ	S	TO24	
22	2N1750	15m*	50M	500u	ØA	14		14	5.0m	2.0u	3.0Ø	500uØ	30	3.0ub	60		3.0p	S	TO24	
23#	2SA19	15m	50M		*J	12		.50	2.0m	10uØ	6.0	1.0m	20	300nb	45	2.0	1.5p	G	TO1	
24#	2SA20	15m	55M		*J	12		.50	2.0m	10uØ	6.0	1.0m	30	200nb	40	2.0	1.5p	G	TO1	
25#	2SA21	15m	55M		*J	12		.50	2.0m	10uØ	6.0	1.0m	50	200nb	40	2.0	1.5p	G	TO1	
26#	2SA215	15m	120M		*J	15		.50	2.0m	5.0uØ	6.0Ø	1.0m	40				1.0p	G	TO1	
27#	2SA216	15m	120M		*J	15		.50	2.0m	5.0uØ	6.0Ø	1.0m	40				1.0p	G	TO1	
28#	2SA213	15m	140M		*J	15		.50	2.0m	5.0uØ	6.0Ø	1.0m	25				1.0p	G	TO1	
29#	2SA214	15m	140M		*J	15		.50	2.0m	5.0uØ	6.0Ø	1.0m	25				1.0p	G	TO1	
30	SB200	20m	15.M*		*J		4.5		5.0m	3.0u			7.0					S		
31	MA2	20m	20M*Δ	400u	ØJ	3.0	3.0		50m	10u	3.0Ø	1.0mØ	245	5.0ub	100		6.0pØ	MA	TO24	
32	SO1	20m	20M*Δ	500u	*J	5.0	5.0		5.0m	10u	3.0Ø	500uØ	10 Δ	6.0ub	100 Ø		6.0pØ	S	TO24	
33	SO3	20m	30M*Δ	500u	*J	5.0	5.0		5.0m	10u	3.0Ø	.50mØ	10 Δ					S	TO24	
34#	2SA154	20m	50M		*J	15		.50	4.0m	5.0uØ	6.0	1.0m	20	300nb	45	2.0	1.5p	G	TO1	
35#	2SA155	20m	55M		*J	15		.50	4.0m	5.0uØ	6.0	1.0m	30	200nb	40	2.0	1.5p	G	TO1	
36#	2SA156	20m	55M		*J	15		.50	4.0m	5.0uØ	6.0	1.0m	50	200nb	40	2.0	1.5p	G	TO1	
37#	2SA159	20m	55M		*J	15		.50		5.0uØ	6.0	1.0m	50	200nb	40	2.0	1.5p	G	TO1	
38#	2SA160	20m	55M		*J	15		.50	4.0m	5.0uØ	6.0	1.0m	60	200nb	40	2.0	1.5p	G	TO1	
39#	2SA153	20m	60M		*J	15		.50	4.0m	5.0uØ	6.0	1.0m	60	20ub	40	2.0	1.3p	G	TO1	
40#	2SA157	20m	65M		*J	15		.50	4.0m	5.0uØ	6.0	1.0m	50	200nb	40	2.0	1.5p	G	TO1	
41	2N300	20m	95M*		#J		4.5	5.0	5.0m	3.0u	3.0Ø	500u	18	2.0ub	65		2.8p	S		
42	2N299	20m	110M*	500u	#J		4.5	5.0	5.0m	3.0u	3.0Ø	500u	18	2.0ub	65		2.8p	S		
43#	AT874	21m	1.5M	2.9m	#J	32	40	6.0	100m	15uØ	6.0	1.0m	90					A	TO5	A
44#	T65	25m	700k	2.0m	ØJ	16	12	16	15m	5.0u	2.0	2.0mØ	45	1.8ub	19	4.0	25p	A	R72	
45#	T65/30	25m	700k	2.0m	ØJ	32	24	32	15m	5.0u	1.0	2.0mØ	45	1.8ub	19	4.0	25p	A	R72	
46#	2SA39	25m	5.0M	500uØ	J	18		12	5.0m	10u	6.0	1.0m	49				11p	A	TO2	
47#	2SA37	25m	7.0M§	500uØ	J	18		12	5.0m	10u	6.0Ø	1.0m	70				11p	A	TO2	
48#	2SA38	25m	10.M	500uØ	J	18		12	5.0m	10u	6.0	1.0m	70				11p	A	TO2	
49	MA1	25m	20M*Δ	500u	ØJ	6.0	6.0		50m	10uØ	3.0Ø	1.0mØ	245	2.5ub	100		6.0pØ	MA	TO24	
50#	MA393C	25m	20M§Δ		#S	10	10	10	50m	8.0uØ	.50Ø	10mØ	4.0 Δ				6pØ	MAΔ	TO1	
51	2N3148†	25m*	25M§Δ	455u	#S	11	6.0	5.0	50m	5.0uØ	3.0Ø	.50m	80 Δ				6pØ		TO24	
52#	MA393	25m	25M§Δ		ØJ	6.0	6.0 Ø		50m	10u	3.0Ø	.50mØ	40 Δ				6pØ	MAΔ	TO1	
53#	MA393A	25m	25M§Δ		ØJ	15	10 Ø		50m	10u	3.0Ø	.50mØ	40 Δ				6pØ	MAΔ	TO1	
54#	MA393B	25m	25M§Δ		ØJ	15	14 Ø		50m	10u	3.0Ø	.50mØ	40 Δ				6pØ	MAΔ	TO1	
55#	MA393G	25m	25M§Δ		#J	6.0	7.0		50m	10u	3.0Ø	.50mØ	40 Δ				6pØ	MAΔ	TO1	
56#	MA393R†	25m	25M§Δ		#S	6.0	6.0	5.0	50m	5.0uØ	.50	50mØ	30 †Δ				6pØ	MAΔ	TO1	
57#	V15/20R	25m	30M	500u	ØJ	15			12m		4.5	1.0m	25	100u	500		3.0p	D		
58	MA28	25m	40M*Δ	417u	#S	6.0	6.0		50m	10uØ	3.0Ø	1.0mØ	20 Δ					MA	TO24	
59#	MAS20	25m	50M§Δ		ØJ		6.0	6.0	40m	10uØ	1.0Ø	20mØ	80 †Δ					MAΔ	TO1	
60#	MAS21	25m	50M§Δ		ØJ		6.0	6.0	40m	10uØ	1.0Ø	20mØ	50 †Δ					MAΔ	TO1	
61#	MAS22	25m	50M§Δ		ØJ		6.0	6.0	40m	10uØ	1.0Ø	20mØ	25 †Δ					MAΔ	TO1	
62#	MAS23	25m	50M§Δ		ØS		6.0	6.0	40m	10uØ	1.0Ø	20mØ	25 †Δ					MAΔ	TO1	
63	3N25/501	25m	200M		Ø	15			2.0m	10uØ	12	.50m					.80p	G§		
64#	GTA3	25m#	200M	500u	ØJ	15			2.0m	20u			65				800f	G		
65#	ES3110	27m*	.30M	1.3m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	16 Ø				50pØ	At	TO23	
66#	ES3111	27m*	.40M	1.3m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	24 Ø				50pØ	At	TO23	
67#	ES3112	27m*	.60M	1.3m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	36 Ø				50pØ	At	TO23	
68#	ES3113	27m*	.80M	1.3m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	51 Ø	30u	1.1k	6.1	50pØ	At	TO23	
69#	ES3114	27m*	1.0M	1.3m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	75 Ø				50pØ	At	TO23	
70#	ES3115	27m*	1.5M	1.3m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	110 Ø				50pØ	At	TO23	
71#	ES3116	27m*	2.0M	1.3m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	160 Ø				50pØ	At	TO23	
72	2N1753	30m*		769u	#S	30	18	.50	50m	15uØ	4.0Ø	.10mØ	50 †Δ				2.5pØ		TO1	
73#	NKT249	30m			*J	5.0			10m		1.5	8.0m	20					†	R65	
74#	OC622	30m	.50M		Ø		15	8.0		6.5uØ			35							
75#	OC623	30m	.60M		Ø		15	8.0		7.0uØ			50							
76#	OC624	30m	.70M		Ø		15	8.0		7.0uØ			65							
77#	OC331	30m*	1.0M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	27	22u	1.7k	4.0		At	R40	
78#	OC341	30m*	1.0M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	40	26u	2.6k	5.0		At	R40	
79#	OC342	30m*	1.0M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	65	30u	3.8k	7.0		At	R40	
80#	OC361	30m*	1.0M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	40	26u	2.6k	5.0		AØ	R40	
81#	OC362	30m*	1.0M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	65	30u	3.8k	7.0		AØ	*R40*	
82	R2	30m	1.0M		#S	30		30	10m	8.0uØ	1.5Ø	1.0mØ	100	30u	2.0k	8.0	20p	A	u11	
83#	OC343	30m*	1.2M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	100	34u	6.5k	11		At	R40	
84#	OC363	30m*	1.2M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	100	34u	6.5k	11		AØ	R40	
85#	OC351	30m*	1.6M	1.0m	ØJ	5.0	5.0		30m	1.5uØ	2.0Ø	500u	160	38u	1.1k	15		At	R40	
86	R3	30m	2.0M		#S	30		30	10m	5.0uØ	1.5Ø	1.0mØ	100	30u	2.0k	8.0	8.0p	A	u12	
87#	OC364	30m*	2.5M	1.0m	ØJ	7.0	7.0		30m	1.5uØ	2.0Ø	500u	85	32u	5.2k	9.0		AØ	R40	
88#	OC612	30m	6.0M	1.0m	ØJ	17		10		20u	6.0	500u	60		1.0k			A		
89#	OC613	30m	10M	1.0m	ØJ	17		10		20u	6.0	500u	60		400			At		
90#	ASZ30†	30m	12MΔ	1.0	ØJ	50	30 §	.70	250m	30uØ	.55Ø	200mØ	20 †Δ				4.0pØ	D	R76	
91#	AF101	30m	14M	1.0m	ØJ	20		8.0	20m	6.0u	.50	50m		1.0m				At	R87	
92#	26T1	30m	25.MΔ		#J	11	11 §		10m	6.0u	5.0Ø	3.0mØ	20 †Δ						R30	
93#	DAT2†	30m	25M§Δ		ØJ	8.0	6.0	5.0	50m	5.0uØ	.50Ø	50mØ	40 †Δ				6pØ	MAΔ	TO1	
94#	MA240	30m	25M§Δ		#J	8.0	6.0	6.0	10m	5.0uØ	3.0Ø	.50mØ	16 Δ				6pØ	MA	TO1	
95#	MA393E†	30m	25M§Δ		ØS	10	10	5.0	50m	10u	.50Ø	50mØ	40 †Δ				6pØ	MAΔ	TO1	
96	2N129	30m	30M*	500u	#J		4.5	10	5.0m	3.0u	3.0Ø	500uØ	20	2.0ub	70		4.0p	S	TO24	
97	JAN2N129	30m	30MΔ	500u	#A	10	10	5.0	5.0m	15u	3.0	500u	10	b	90		4.0p		TO24	
98	TI380	30m	30.M			16			5.0m	10uØ	6.0	.50mØ	20 §					GD	R44	
99	TI379	30m	35.M			16			5.0m	10uØ	6.0	.50mØ	33 §					GD	R44	
100	TI381	30m	35.M			16			5.0m	10uØ	6.0	.50mØ	29 §					GD	R44	
101	TI382	30m	35.M			20			5.0m	10uØ	6.0	.50mØ	25 §					GD	R44	
102	TI383	30m	35.M			20			5.0m	10uØ	6.0	.50mØ	25 §					GD	R44	
103	TI384	30m	35.M			27			5.0m	10uØ	6.0	.50mØ	25 §					GD	R44	
104#	25T1	30m	40.MΔ		#J	11	11 §		10m	6.0u	5.0Ø	3.0mØ	20 †Δ						R30	
105	TI378	30m	40.M			16			5.0m	10uØ	6.0	.50mØ	34 §					GD	R44	
106	2N33	30m	50M		*A	8.5			7.0m			25uΔ	40					PC	OV7	
107	2N248	30m	50.M		ØA	25			5.0m	10u	9.0	2.0m	20				1.2p	GD	OV8	
108#	2T201	30m	50M	769u	*J	15			5.0m	8.0u	6.0	1.0m	24	450nb	40	2.0	1.3p	G		
109#	2T204	30m	50M	769u	*J	15			5.0m	8.0u	6.0	1.0m	49	450nb	40	2.0	1.5p	G		
110#	2T205	30m	60M	769u	*J	15			5.0m	8.0u	6.0	1.0m	49	200nb	40	2.0	1.3p	G		

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	MDS35	30m	60M§Δ		#S	20	20 Ø	2.0		5.0uØ	6.0Ø	1.0m	40 Δ				4pØ	MDΔ	TO1	
2#	HF100	30m	250M	769u	#J	15		.50	50m	15u								MD		
3#	HF200	30m	320M	1.3m	#J	30		.50	50m	15u	10	3.0m	8.5				1.3p	MD†		
4	TIXM13	30m§	1.0G§Δ	1.2m	♦A	15	7.0	.30	30m	6.0uØ	5.0Ø	3.0mØ	15 †Δ				1.4p§	PEØ	X55	A
5	2N82	35m§			#A	20			15m	16u				80u	2.5k					
6	2N1398	35m							5.0m	10u			2.4					ME	R34	
7	2N1399	35m							5.0m	10u			2.4					ME	R34	
8	2N1400	35m							5.0m	10u			1.6					ME	R34	
9	2N1401	35m							5.0m	10u			2.1					ME	R34	
10	2N1401A	35m							5.0m	10u			2.1					ME	R34	
11	2N1402	35m							5.0m	10u			1.7					ME	R34	
12#	2S96	35m			#S	20			10m	20u			30				1.7			
13#	2S97	35m			#S	20			10m	20u			30				1.7			
14#	2S98	35m			#S	20			10m	20u			30				1.7			
15	TR77	35m	.70M		*A	25			15m	10uØ	4.0Ø	.70mØ	55				40p	A		
16	TR105	35m	.75M		*A	25			15m	5.0uØ	4.0Ø	.70mØ	55				17p	A		
17	2N79	35m	780k	3.3m '	ØA	30			50m	10uØ	6.0Ø	1.0mØ		20u	1.7k					
18	TR139	35m	4.5M		ØA	16		12	15m	6.0uØ	9.0Ø	.50mØ	45				9.5p	A		
19	TR218	35m	4.5M		ØA	16		12	15m	6.0uØ	9.0Ø	500uØ	45				9.5p	A		
20#	2S31	35m	5.0M		#S	12			10m	10u			50				9.5			
21#	2S30	35m	10.M		#S	12			10m	10u			75				9.5			
22	2N267	35m§	132MØ		ØA	35		1.0	10m	16uØ			45 §				1.7p	A		
23#	ES3120	36m*	.30M	1.8m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	16 Ø				50pØ	A†	TO5	
24#	ES3121	36m*	.40M	1.8m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	24 Ø				50pØ	A†	TO5	
25#	ES3122	36m*	.60M	1.8m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	36 Ø				50pØ	A†	TO5	
26#	ES3123	36m*	.80M	1.8m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	51 Ø	30u	1.1k	6.1	50pØ	A†	TO5	
27#	ES3124	36m*	1.0M	1.8m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	75 Ø				50pØ	A†	TO5	
28#	ES3125	36m*	1.5M	1.8m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	110 Ø				50pØ	A†	TO5	
29#	ES3126	36m*	2.0M	1.8m	*J	30	15		10m	6.0uØ	5.0	1.0mØ	160 Ø				50pØ	A†	TO5	
30#	2SB91	40m		769u	ØJ	18		12	5.0m	14u	6.0	1.0m	70	200nb	30	2.5		A	TO2	
31#	2SB97	40m		769u	ØJ	18		12	5.0m	14u	6.0	1.0m	70					AØ	TO2	
32	CK891	40m†			*A	12			50m	5.5u	1.5	.50m	160					FA†	u11	
33	CK892	40m†			*A	12			50m	5.5u	1.5	.50m	160					FAØ	u11	
34#	AC164	40m	10k	833u	ØJ	10	10	.50	30m	2.0uØ	.50Ø	200u	40 Δ					A†	u20	
35#	2SB90	40m	1.0M	3.0m	ØJ	25		12	50m	14u	6.0	1.0m	150	200nb	30	2.5		A	TO2	
36#	2SB321	40m	6.0M	769u	ØJ	12		12	50m	4.0uØ	1.5	500u	100	20u	4.0k	6.0	12p	AØ	R68	
37#	2SB322	40m	6.0M	769u	ØJ	12		12	50m	4.0uØ	1.5Ø	500u	50	19u	3.0k	5.0	12p	A	R68	
38#	2SB323	40m	6.0M	769u	ØJ	12		12	50m	4.0uØ	1.5Ø	500u	100	20u	4.0k	6.0	12p	A	R68	
39	JAN2N300	40m	85M*Δ	1.1m	#S	7.0	4.5	5.0	20m	3.0uØ	3.0	500u	10 Δ	5.0uØb	90 Ø		4.0pØ	Ø	TO24	
40	2N623	40m	90.M	1.0m	*J	30		1.0		10u	6.0Ø	2.0mØ	35				3.5p	DΔ		
41	T1905†	40m	120M§	667u	#S	12	10 Ø	2.0	50m	100u	.50Ø	10mØ	50				5pØ	MA	TO9	
42#	OC330	45m	800k	1.5m	ØJ		15		35m		5.0Ø	1.0m	24	25u	1.0k	6.0		A	R39	
43#	OC360	45m	800k	1.5m	ØJ		15		35m		5.0Ø	1.0m	70	30u	1.2k	7.5		A	R39	
44#	OC340	45m	1.1M	1.5m	ØJ		15		35m		5.0Ø	1.0m	70	45u	1.8k	11		A	R39	
45#	OC350	45m	2.0M	1.5m	ØJ		8.0		35m		5.0Ø	1.0m	150	50u	4.5k	13		A	R39	
46	2N38A	50m				20			8.0m	12uØ	3.0	.50mØ	18							
47	2N41	50m			*A	25			15m	10uØ			40 §							
48	2N46	50m			*A	25		15	15m	10uØ	6.0Ø	1.0m	40							
49	2N62	50m				35			20m	10uØ							50p	A	TO24	
50	2N81	50m§			#A		20		15m	16u	6.0Ø	1.0mΔ	20 Δ	80u	2.5k			F		
51#	2SB184	50m		833u	#J	12		2.5	20m	12u	2.0Ø	5.0mØ	100					PA	TO2	
52	1032	50m			*A	25			40m	10uØ			12				40			
53	1033	50m			*A	25			40m	10uØ			24				40			
54	1034	50m			*A	25			40m	10uØ			41				40			
55	1035	50m			*A	25			40m	10uØ			61				40			
56	1036	50m			*A	25			40m	10uØ			86				40			
57	1320	50m			*A	25			40m	10uØ			12				40			
58	1330	50m			*A	25			40m	10uØ			24				40			
59	1340	50m			*A	25			40m	10uØ			41				40			
60	1350	50m			*A	25			40m	10uØ			61				40			
61	1360	50m			*A	25			40m	10uØ			86				40			
62	TR109	50m			*A	25			70m	10u	1.0Ø	50mØ	70					A		
63	TR217	50m			*A	25			70m	10u	1.0Ø	50mØ	70					A		
64#	VB709	50m			*J	50			50m	10uØ	10	.50m	100					A		
65#	XB121	50m			*A	105		50	100m	14u	.35Ø	5.0mØ	60 †					AΔ	TO5	
66#	XFT2	50m					6.0			150u		.50m	50							
67#	OC601	50m	.40M		†A	50			20m	10uØ	4.5	1.0m	15							
68#	TS1	50m	.50M		*A					10uØ	1.5Ø	2.0m	10					A		
69#	TS2	50m	.50M		*A					10uØ	1.5Ø	2.0m	30					A		
70#	TS3	50m	.50M		*A						1.5Ø	2.0m	50					A		
71#	2S32	50m	.60M		#S	20			10m	15u			27							
72#	2S33	50m	.60M		#S	20			50m	15u			70							
73	CTP1320	50m	600k	1.8m	Ø	25			40m		6.0	1.0mØ	13				35p	A		
74	OC32	50m	.60M			25			10m	6.0uØ	5.0	1.0m	13					A		
75	TRM34	50m	600k	1.0m	ØJ	40			50m	5.0uØ	6.0	1.0m	40				15p			
76	2N591/5	50m	700k	2.9m	ØA	32			40m	7.0u	12Ø	2.0mØ	70					A	TO5	
77#	2SB183	50m	.70M	833u	#	12		10	20m	10u	4.0	.50m	65	11.u	3.9k	3.8		Ø	TO2	
78#	2T11	50m	.70M		*A	25			10m	20uØ			12							
79#	2T12	50m	.70M		*A	25			10m	10uØ			19							
80#	2T13	50m	.70M		*A	25			10m	10uØ			32							
81#	VB701	50m	.70M		*J	30			50m	9.0uØ	4.0	1.0m	80					A		
82#	VB704	50m	.70M		*J	30			50m	10uØ	6.0	.70m	50					A		
83	2N47	50m	.80M		*A	35			20m	5.0uØ			40					†		
84	2N48	50m	.80M		*A	35			20m	5.0uØ			32					†		
85	2N49	50m	.80M		*A	35			20m	5.0uØ			40					†		
86	CTP1330	50m	800k	1.8m	Ø	25			40m	4.0uØ	6.0	1.0mØ	25				33p	A		
87	OC33	50m	.80M			25			10m	6.0uØ	5.0	1.0m	24					A		
88	TR35	50m	800k	1.0m	ØJ	40			50m	5.0uØ	6.0	1.0m	40				18p			
89	2N76	50m	1.0M		*A	20			10m	5.0uØ			19				40			
90	CTP1340	50m	1.0M	1.8m	Ø	25			40m	4.0uØ	6.0	1.0mØ	45				30p	A		
91#	OC602	50m	1.0M	1.6m	ØJ	20		10	50m	20u	1.0	2.0m	40	750u	750	5.5		A†	R8	
92	OC34	50m	1.1M			25			10m	6.0uØ	5.0	1.0m	39					A		
93#	OC603	50m	1.1M	1.6m	ØJ	20		10	50m	20u	1.0	2.0m	50	86u	900	6.0		AØ	R9	
94	CTP1350	50m	1.2M	1.8m	Ø	25			40m	4.0uØ	6.0	1.0mØ	65				28p	A		
95#	OC604	50m	1.2M	1.6m	ØJ	30		10	50m	20u	1.0	2.0m	65	100u	1.2k	6.5		A†	R9	
96	CTP1360	50m	1.5M	1.8m	Ø	25			40m	4.0uØ	6.0	1.0mØ	85				25p	A		
97#	2SB73	50m	2.0M			10		10	2.0m	7.0u	4.0Ø	.50m	80	12u	4.3k	3.4		A	TO1	
98	2N32	50m	2.7M		†A	40		40	8.0m									PC		
99	2N32A	50m	2.7M		*A	40		40	8.0m				21 §					PCΔ		
100	2N50	50m	3.0M		*A	15			1.0m				.67					PCΔ		
101	2N1264	50m	3.0M	1.0m	ØJ	20		.10	10m	50u	9.0Ø	1.0m	25				4.0p	D	TO7	
102	1390	50m	3.0MΔ		*A	10				10uØ							13			
103	CTP1390	50m	3.5M			10				2.0uØ	6.0	1.0mØ					16p	A		
104#	35T1	50m	4.5M		#S	20	6.0 §		50m	6.0u	5.0	1.0m	20	b		90p	14p		R26	
105#	2SA182	50m	5.0M		ØJ	15		15	10m	10u	6.0	1.0m	27				13p	A		
106	1400	50m	5.0MΔ		*A	10				10uØ							13			
107	TR760	50m	5.0M		Ø	15				1.0u	4.5	1.0m	40				14			
108#	36T1	50m	6.5M		#S	10	6.0 §		50m	6.0u	5.0	1.0m	40	b		70p	14p		R26	
109	CTP1400	50m	7.0M			10				2.0uØ	6.0	1.0mØ					14p	A		
110#	2SA181	50m	8.0M		ØJ	15		15	10m	10u	6.0	1.0m	47				13p	A	TO1	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A X M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	37T1	50m	10M		#S	10	6.0 §		50m	6.0u	5.0	1.0m	60	b		70p	14p		R26	
2	1410	50m	10.MΔ		*A	10				10uØ							13			
3	CTP1410	50m	10.M			10				2.0uØ	6.0	1.0mØ					13p	A		
4#	GFT43A	50m	10M	1.0m	ØJ	15		.80	10m	10u	6.0	1.0m	35	30u	30u		3.5p	MD	R36	
5#	GFT44/15E	50m	10.M	1.0m		15												D		
6#	2SA180	50m	12.M		ØJ	15		15	10m	10u	6.0	1.0m	70				13p	A	TO1	
7	2N72	50m	20.M		*A	40		50	8.0m	1.6mØ										
8#	GFT43B	50m	30M	1.0m	ØJ	15		.80	10m	10u	6.0	1.0m	70	30u	30u		3.5p	MDΔ	R36	
9	TR763	50m	30.M		ØJ	6.0				1.0u	4.5	1.0m	200				14p	A		
10#	2SA285	50m	40.M		ØJ	18		.50	5.0m	15u	6.0Ø	1.0m	70				2.0p	D	TO44	
11#	GFT43	50m	40M	1.0m	ØJ	15		.80	10m	10u		1.0m	50				3.5p		R36	
12#	2SA286	50m	50.M		ØJ	18		.50	5.0m	15u	6.0Ø	1.0m	70				2.0p	D	TO44	
13	2N2180	50m	60.M§	667u	#J	15		15	50m	50u	.25Ø	10mØ	100 †Δ				3.0p	MA	TO24	
14#	2SA287	50m	60.M		ØJ	18		.50	5.0m	15u	6.0Ø	1.0m	70				2.0p	D	TO44	
15#	GFT42B	50m	80.M	1.0m		15												D		
16#	AF132	50m	90M	1.0m	ØJ	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	75					ADØ	R38	
17#	GFT42A	50m	90.M	1.0m		15												D		
18	2N3770	50m	100M§Δ	667u	#S	10	6.0	.50	50m	10uØ	6.0Ø	1.0m	10 Δ				3pØ		TO18	
19#	AF131	50m	100M	1.0m	ØJ	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	75					ADØ	R38	
20#	AF133	50m	100M	1.0m	ØJ	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	35					ADØΔ	R38	
21#	AF129	50m	150M	1.0m	ØJ	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	50					AD†	R38	
22#	AF130	50m	150M	1.0m	ØJ	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	60					AD†	R38	
23#	GFT41	50m	150M	1.0m		8.0												D		
24#	MDS38†	50m	280M§Δ		#S	15	8.0	2.0	50m	5.0uØ	.50Ø	10mØ	20 †Δ				4.0pØ	MDΔ	TO18	Ø
25#	2SA242	50m	290M§Δ	1.0m	ØJ		20	.40	5.0m	13uØ	6.0	1.0m	100				1.0p	AD	TO7	
26#	2SA243	50m	350M§Δ	1.0m	ØJ		20	.40	5.0m	13uØ	6.0	1.0m	100				1.0p	AD	TO7	
27#	2SA28	55m		1.1m	ØJ	18		.50	5.0m		6.0	1.0m	30					A	TO44	
28#	2SA29	55m			ØJ	18		.50	5.0m	8.0uØ	6.0Ø	1.0m	60 Ø				6pØ	D	TO44	
29#	2SA79	55m	6.0M	1.1m	ØJ	18		12	200m	12u	1.5	100m	70					AΔ		
30#	2SA73	55m	35M	1.1m	ØJ	18		.50	5.0m	10u	6.0	1.0m	49				1.9p	D	TO44	
31#	2SA236	55m	35M	1.1m	ØJ	18		.50	5.0m	12u	6.0	1.0m	50				1.7p	D	TO44	
32#	2SA237	55m	35M	1.1m	ØJ	18		.50	5.0m	12u	6.0	1.0m	50				1.7p	D	TO44	
33#	2SA72	55m	40M	1.1m	ØJ	18		.50	5.0m	10u	6.0	1.0m	49				1.9p	D	TO44	
34#	2SA93	55m	45M	1.1m	ØJ	18		.50	5.0m	10u	4.5	1.0m	49				2.0p	D	TO44	
35#	2SA433	55m	45.M			18		.50	5.0m	8.0uØ	6.1	1.0m	60				3.5pØ	D	TO44	
36#	2SA92	55m	50M	1.1m	ØJ	18		.50	5.0m	10u	4.5	1.0m	70				2.0p	D	TO44	
37#	2SA60	55m	55M	1.1m	ØJ	18		.50	5.0m	10u	6.0	1.0m	70				1.9p	D	TO44	
38#	2SA59	55m	65M	1.1m	ØJ	18		.50	5.0m	10u	9.0	1.0m	70				1.7p	D		
39#	2SA58	55m	75M	1.1m	ØJ	18		.50	5.0m	10u	9.0	1.0m	80				1.7p	D	TO44	
40#	2SA57	55m	85M	1.1	ØJ	18		12	5.0m	10u	9.0	1.0m	80				2.5p	D	TO44	
41#	2SA175	55m	85M	1.1m	ØJ	18		.50	5.0m	10u	9.0	1.0m	80				1.7p	D	TO44	
42#	2SA77	55m	110M	1.1m	ØJ	18		.50	5.0m	10u	6.0	1.0m	70				1.7p	D	TO44	
43#	2SA76	55m	130M	1.1m	ØJ	18		.50	5.0m	10u	6.0	1.0m	70				1.7p	D	TO44	
44#	AC169	60m		5.0m	*J	2.0	2.0	2.0	30m	7.0uØ								A	TO1	
45#	MD501†	60m			#S	15	12 Ø	2.0	50m	5.0uØ	.50Ø	10mØ	20 †Δ				5pØ	MDΔ	TO1	
46#	MD501B†	60m			#S	15	12 Ø	2.0	50m	5.0uØ	.50Ø	10mØ	20 †Δ				3pØ	MDΔ	TO1	
47#	MDS34†	60m			#S	20	15 Ø	2.0	50m	3.0uØ	.50Ø	40mØ	20 †Δ				3pØ	MDΔ	TO1	
48	T2896	60m			#S	20	20 Ø	.50		100u	10Ø	2.0mØ	10 †Δ					MD†	TO12	
49#	989T1	60m	800k		*A	24	9.0		50m	40u	5.0	1.0m	24	1.0ub	29	4.0	35p		R26	
50#	987T1	60m	1.0M		*A	24		5.0	200m	40u	1.0Ø	100mØ	36 Δ		2.0		35p		R26	
51#	990T1	60m	1.0M		*A	24	9.0		50m	40u	5.0	1.0m	36	800nb	29	4.0	35p		R26	
52#	988T1	60m	1.2M		*A	24		5.0	200m	40u	1.0Ø	100mØ	54 Δ		2.6		35p		R26	
53#	991T1	60m	1.2M		*A	24	9.0		50m	40u	5.0	1.0m	54	600nb	29	4.0	35p		R26	
54#	941T1	60m	1.5M		*A	24		5.0	200m	40u	1.0Ø	100mØ	73 Δ		4.0		35p		R26	
55#	965T1	60m	1.5M		*A	24	9.0		50m	40u	5.0Ø	1.0m	110	500nb	29	4.0	35p		R26	
56#	992T1	60m	1.5M		*A	24	9.0		50m	40u	5.0Ø	1.0m	75	500nb	29	4.0	35p		R26	
57	T2878	60m	2.4M	769u	#S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	33 †				1.5p	ME	TO12	
58#	2NJ51	60m	5.0M		*A	12			10m	10u	9.0	1.0mØ	50				37p	AΔ	R18	
59	T2364	60m	5.0M§	769u	#S	20	20 Ø	.50		10uØ	10Ø	2.0mØ	10 †Δ					MDØ	R34	
60#	2NJ50	60m	10.M		*A	12			10m	10u	9.0	.60mØ	75				9.5p	A	R18	
61#	2SA51	60m	14M	1.2m	ØJ	18		12	5.0m	15u	6.0	1.0m	70				11p	A	TO1	
62	2N2059	60m	50.M§	1.3m	#J	10		2.0	50m	5.0uØ	.50Ø	10mØ	35 †				1.5p	MDΔ	TO1	
63#	MDS32	60m	60M§		#S	20		1.0	50m	5.0uØ	2.0Ø	10mØ	50 †Δ					MDΔ	TO1	
64	T2788	60m	90.M§	769u	#S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	10 †Δ					MDØ	TO12	
65#	2SA349	60m	100M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	10				1.5p	ME	TO17	
66#	MDS31†	60m	100M§Δ		#S	9.0	8.0	1.0	50m	5.0uØ	.30Ø	50mØ	20 †Δ					MDΔ	TO1	
67#	MDS36†	60m	100M§Δ		#S	20	20 Ø	2.0	100m	5.0uØ	.30Ø	10mØ	30 †Δ				3.0pØ	MDΔ	TO18	Ø
68#	MDS40	60m	100M§Δ		#J	20	20 Ø	2.0	50m	5.0uØ	2.0Ø	10mØ	35 †Δ				4pØ	MD	TO1	
69	T2946	60m	150M§	769u	#S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	10 †Δ					MDØ	TO12	
70	2N1500/18†	60m	175M§	769u	#S	15		2.0	50m	1.5u	.50Ø	10mØ	70 †				1.5p	MD	TO18	
71	2N588A	60m	200M*Δ	1.0m	#S	15	15 Ø	.50	50m	15u	.30Ø	10mØ	30 †Δ					†	TO1	
72#	2SA348	60m	200M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	10				1.5p	ME	TO17	
73#	2SA345	60m	250M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	30				1.2p	ME	TO17	
74#	2SA346	60m	250M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	30				1.2p	ME	TO17	
75#	2SA347	60m	250M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	30				1.2p	ME	TO17	
76#	MDS33C†	60m	250M§Δ		#S	15	10	2.0	50m	10uØ	5.0Ø	10mØ	6.3 Δ				4pØ	MDΔ	TO1	
77#	MDS33D	60m	250M§Δ		#S	15	10	2.0	50m	10uØ	.50Ø	10mØ	40 †Δ				4pØ	MDΔ	TO1	
78#	MDS39	60m	250M§Δ		#S	15	10	2.0	50m	10uØ	.50Ø	10mØ	30 †Δ				4.0pØ	MDΔ	TO18	Ø
79#	MDS33	60m	300M§Δ		#S	15	10	2.0	50m	3.0uØ	.50Ø	10mØ	30 †Δ				4pØ	MDΔ	TO1	
80#	MDS33A	60m	300M§Δ		#S	7.5	5.0	2.0	50m	3.0uØ	.50Ø	10mØ	30 †Δ				4pØ	MDΔ	TO1	
81	T2945	60m	300M§Δ		#S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	20 Δ				1.5pØ	MDØ	TO12	
82#	2SA460	60m	400M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	30				.90p	ME	L41	
83#	2SA461	60m	400M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	30				.90p	ME	L41	
84#	2SA462	60m	400M§	1.0m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	30				.90p	ME	L41	
85	2N846	60m	450M§	769u	#S	15	15 Ø	2.0	50m	25u	.50Ø	50mØ	35 †				1.9p	MD	TO18	
86	2N779	60m	480M§	769u	#	15			50m	25u	.50Ø	10mØ	90 †				1.9p	MD	TO18	
87	2N2966	60m	500M§Δ	500u	#S	20	20	.50	100m		10Ø	3.0mØ	8.0 †Δ				1.5pØ			
88#	2SA464	60m	850M§	1.0m	#J	15	10	.30	10m	10u	6.0Ø	3.0m	30				1pØ	ME	L41	
89#	GFT45	63m	3.0MΔ	1.2m	ØJ	15		10		40u	6.0	1.0m	40				8.0p	A		
90#	GFT45/30	63m	3.0MΔ	1.2m	ØJ	30		10		40u	6.0	1.0m	40					A		
91#	GTA1	63m	3.0MΔ	1.2m	ØJ	15		10		20u	6.0	500u	40				8.0p	A		
92#	GFT44	63m	7.0MΔ	1.2m	ØJ	15		10		80u	6.0	1.0m	60				8.0p	A		
93#	GFT44/30	63m	7.0MΔ	1.2m	ØJ	30		10		80u	6.0	1.0m	60					A		
94#	GTA2	63m	7.0MΔ	1.3m	*J	15		10		20u	6.0	.50m	100				8.0p	A		
95	OC320	65m	600k	1.3m	Ø	20			10m	6.0uØ	5.0	1.0m	13					A		
96#	OC390	65m*	4.5M	2.2m	ØJ	15			40m	10uØ	5.0Ø	500u	40	33u	800	16	12p	A	R42	
97#	OC400	65m*	7.0M	2.1m	ØJ	15			40m	10uØ	5.0Ø	500u	75	40u	1.5k	30	12p	A	R42	
98#	OC410	65m*	12M	2.1m	ØJ	15			40m	10uØ	5.0Ø	500u	110	50u	2.5k	50	12p	A	R42	
99#	AF111	65m	50M	2.0m	ØJ	20		.50	10m								2.0p	D		
100#	AF112	65m	60M	2.0m	ØJ	20		.50	10m								2.0p	D		
101#	AF113	65m	80M	2.0m	ØJ	20		.50	10m								2.0p	D		
102#	NKT33	66m	3.0M	1.3m	ØJ	10	10 §	12	10m	3.0uØ	6.0	1.0m	75	600nb			10p		R65	
103#	NKT43	66m	3.0MΔ	1.3m	ØJ	10	10 §	12	10m	3.0uØ	6.0	1.0m	75	600nb			10p	A	TO5	
104#	NKT32	66m	7.5MΔ	1.3m	ØJ	10	10 §	12	10m	3.0uØ	6.0	1.0m	100	600nb			10p		R65	
105#	NKT42	66m	7.5MΔ	1.3m	ØJ	10	10 §	12	10m	3.0uØ	3.0	1.0m	100	600nb			10p	A	TO5	
106#	OC304	67m	900k	2.2m	ØJ		15		50m		5.0Ø	1.0m	70	45u	1.8k	11		A		
107#	OC305	67m	2.0M	2.2m	ØJ		8.0		50m		5.0Ø	1.0m	150	50u	4.5k	13		A		
108	2N222	70m			#A	12				15uØ			20							
109#	2SA432	70m				20		.20	5.0m	10u	6.0	1.0m	16					ME	TO17	
110	TR12	70m			#J	25		25		15uØ	4.5	1.0m	15					B		

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1	TR13	70m			#	25				15uØ	4.5	1.0m	28							
2	TR14	70m			#	25				15uØ	4.5	1.0m	45							
3	TR88	70m			#	25				15uØ	4.5	1.0m	65							
4	TRM13	70m			#	25				15uØ	4.5	1.0m	28							
5	TRM14	70m			#	25				15uØ	4.5	1.0m	45							
6	TRM81	70m			#	25				15uØ	4.5	1.0m	65							
7#	TS15	70m	.50M	2.0m	*J	65		20			9.0Ø	1.0m	35					A		
8#	EW58/1	70m	.70M			5.0			20m	4.0u			24				60			
9#	EW58/2	70m	.70M			50			20m	4.0u			40				60			
10#	EW59	70m	.70M			20			20m	4.0uØ			32				30			
11	TR18	70m	.70M		#	25				15uØ	4.5	1.0m	45							
12#	EW53/1	70m	.80M		*A	10			20m	4.0uØ			24				45			
13#	EW53/2	70m	.80M		*A	10			20m	4.0uØ			40				45			
14#	2SB264	70m	1.0M		ØJ	25			50m	10uØ	1.5Ø	.50m	65				15p	A	TO1	
15	TR87	70m	1.0M	2.0m	#J	25				15uØ	4.5	1.0m	28				50			
16#	TS7	70m	4.0M	2.0m	*J	20		20			4.5Ø	1.0m	35					AB		
17#	TS8	70m	8.5M	2.0m	*J	10		10			4.5Ø	1.0m	65					AB		
18#	2SA430	70m	450M§Δ	1.2m	#J	20			5.0m	10uØ	6.0Ø	2.0m	4.5				.80p	ME	TO72	
19#	2SA432A	70m	450M§	1.2m	#J	20	18 Ø	.20	5.0m	10uØ	6.0Ø	2.0m	4.5				1pØ	ME	TO72	
20#	2SA431	70m	500M§		#J	20	20	.20	5.0m	10uØ							1pØ	ME	TO17	
21#	2SA431A	70m	500M§	1.2m	#J	20	20	.20	5.0m	10uØ	6.0	1.0m	15				1pØ	ME	TO72	
22	TIXM16	70mΔ	500M§	1.8m	♦A	20	16	.30	50m	5.0uØ	6.0Ø	2.0mØ	20 †Δ				.7p$	PE†	TO92	B
23	TIXM17	70mΔ	500M§	1.8m	♦A	20	16	.30	50m	5.0uØ	6.0Ø	2.0mØ	35 †Δ				.7p$	PE†	TO92	B
24	TIXM14	70mΔ	600M§	1.8m	♦A	20	16	.30	50m	5.0uØ	6.0Ø	2.0mØ	40 †Δ				.7p$	PEØ†	TO92	B
25	TIXM15	70mΔ	600M§	1.8m	♦A	20	16	.30	50m	5.0uØ	6.0Ø	2.0mØ	20 †Δ				.7p$	PE†	TO92	B
26#	M8124	70m	900M§	1.1m	#J	20		.20	5.0m	10u			15				.30p		TO17	
27	TIXM18	70mΔ	900M§	1.7m	♦A	18	12	.20	50m	5.0uØ	8.0Ø	3.0mØ	90 †				750f$	PEØ	X55	A
28	TIXM19	70mΔ	900M§	1.7m	♦A	18	12	.20	50m	5.0uØ	8.0Ø	3.0mØ	100 †				750f$	PE†	X55	A
29	JAN2N1158A	75m		1.0m	#S	20	20 Ø	.50	100m	5.0uØ	10	3.0m	50				2.8pØ	ME	TO9	
30	L5431	75m		1.0m	#S	20	20 Ø	.40		10uØ	15	2.0mØ	6.0 †Δ				1.5p	MA		
31	TI446	75m				30			50m	5.0uØ	6.0Ø	2.0mØ	10 Δ					MEΔ	TO50	
32	TI447	75m				30			50m	5.0uØ	6.0Ø	2.0mØ	10 Δ					MEΔ	TO50	
33	TI448	75m				30			50m	5.0uØ	6.0Ø	2.0mØ	10 Δ					MEΔ	TO50	
34#	V10/1S	75m		2.5m	ØJ	10		20	500m		.35	400m	40 †					A		
35#	V10/2S	75m		2.5m	ØJ	10		20	500m		.35	400m	25 †					A		
36#	V10/2SJ	75m		2.5m	ØJ	10			500m		.35	400m	25 †					A	TO5	
37	CTP1032	75m	.60M	2.8mØ		25			40m	4.0uØ	6.0Ø	1.0mØ	13				35p	A		
38	2N266	75m	.80M	2.5m	*A	18	18	5.0	200m		1.0Ø	150mØ	24 †		1.2k		35p		R116	
39	CTP1033	75m	.80M	2.3mØ		25			40m	4.0uØ	6.0	1.0mØ	25				33p	A		
40	2N2447	75m	1.0M	1.3m	#J	45	24	12	100m	10uØ	6.0Ø	1.0m	65	25u	1.8k	5.0		FA	u8	
41	2N2448	75m	1.0M	1.3m	#J	45	24	12	100m	10uØ	6.0Ø	1.0m	65	25u	1.8k	5.0		FA	u9	
42	CTP1034	75m	1.0M	2.3mØ		25			40m	4.0uØ	6.0	1.0mØ	45				30p	A		
43	TS619	75m	1.0M	2.9m	#S	25			50m	8.0u	6.0Ø	1.0mØ	50					A		
44	2N2449	75m	1.2M	1.3m	#J	35	20	12	100m	10uØ	6.0Ø	1.0m	125	36u	3.6k	7.0		FA	u8	
45	2N2450	75m	1.2M	1.3m	#J	35	20	12	100m	10uØ	6.0Ø	1.0m	125	36u	3.6k	7.0		FA	u9	
46	CK22B	75m	1.2M	1.3m	#J	20	15	12	100m	10u	6.0Ø	1.0m	90	36u	3.6k	7.0		FAØ	u8	
47	CK22C	75m	1.2M	1.3m	#J	20	15	12	100m	10u	6.0Ø	1.0m	90	36u	3.6k	7.0		FAØ	u9	
48	CTP1035	75m	1.2M	2.3mØ		25			40m	4.0uØ	6.0	1.0mØ	65				28p	A		
49#	ASY14†	75m*	1.5M	2.5m	ØJ	80	80	10	250m	10uØ	.70Ø	80mØ	25 †Δ				25p	A	R43	
50	CTP1036	75m	1.5M	2.m	Ø	25			40m	4.0uØ	6.0	1.0mØ	85				25p	A		
51#	OC308	75m*	1.5M	2.5m	ØJ	32	18	10	250m	10uØ	.70Ø	80mØ	30 †Δ				25p	A	R43	
52	2N817†	75m	2.5MΔ	1.3m	#J	30	25	25	400m	10uØ	1.0Ø	50mØ	25 †				9.0p	FA	u8	
53	2N818†	75m	2.5MΔ	1.3m	#J	30	25	25	400m	10uØ	1.0Ø	50mØ	25 †				9.0p	FA	u9	
54#	NKT52	75m	3.0MΔ	1.5m	ØJ	10	10 Ø		10m	2.0u								A	R65	
55#	NKT53	75m	3.0MΔ	1.5m	ØJ	10	10 Ø		10m	2.0u								A	R65	
56#	NKT54	75m	3.0MΔ	1.5m	ØJ	10	10 Ø		10m	2.0u								A	R65	
57#	NKT62	75m	3.0MΔ	1.5m	ØJ	10	10 Ø		10m	2.0u								A	TO5	
58#	NKT63	75m	3.0MΔ	1.5m	ØJ	10	10 Ø		10m	2.0u								A	TO5	
59#	NKT64	75m	3.0MΔ	1.5m	ØJ	10	10 Ø		10m	2.0u								A	TO5	
60#	NKT74	75m	3.0M	1.5m		10	10 Ø		10m								10p		TO1	
61#	V6/2R	75m	3.0M	1.5m	ØJ	6.0		6.0	30m		4.5	1.0m	30						TO22	
62	2N819†	75m	5.0MΔ	1.3m	#J	30	20	25	400m	10uØ	1.0Ø	50mØ	45 †				9.0p	FA	u8	
63	2N820†	75m	5.0MΔ	1.3m	#J	30	20	25	400m	10uØ	1.0Ø	50mØ	45 †				9.0p	FA	u9	
64#	NKT103†	75m	5.0M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	75				20p	A	TO22	
65#	NKT106†	75m	5.0M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	75				20p	A	TO22	
66#	NKT109†	75m	5.0M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	75				20p	A	TO22	
67#	NKT123†	75m	5.0M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	75				20p	A	TO5	
68#	NKT129†	75m	5.0M	1.5m	ØJ	30	20 Ø	6.0	400m	10uØ	4.5Ø	1.0mØ	75				20p	AΔ	u9	
69#	V6/4R	75m	5.0M	1.5m	ØJ	6.0		6.0	30m		4.5	1.0m	50				25p	A	TO22	
70	CK83	75m	5.5M	1.3m	#J	12			20m	10u	6.0Ø	1.0m	60				11p	FA	u11	
71#	V6/4RJ	75m	5.5M	2.5m	ØJ	6.0			30m		4.5	1.0m	50				25p	A	TO5	
72	2N801†	75m	6.0M	1.3m	#J	30	18	20	400m	25u	.25Ø	1.0mΔ	40 †				14p	FA	u8	
73	2N802†	75m	6.0M	1.3m	#J	30	18	20	400m	25u	.25Ø	1.0mΔ	40 †				14p	FA	u9	
74#	GET871	75m	6.0M	1.5m	#J	15		10	150m	5.0u	1.0Ø	25mØ	45 †					A	RO11	
75#	GET873	75m	6.0M	1.5m	#J	15		10		5.0u	6.0	1.0m	50	600nb	27	6.0	8.5p	A†	R11	
76#	NKT154/25	75m	6.0M	1.5m	ØJ	6.0	6.0 Ø		10m	2.0u	4.5Ø	1.0mØ	50					A	TO22	
77#	NKT164	75m	6.0M	1.5m	ØJ	6.0	6.0 Ø		10m	2.0u	4.5Ø	1.0mØ	50					A	TO5	
78#	NKT164/25	75m	6.0M	1.5m	ØJ	9.0	9.0 Ø		25m	5.0uØ	4.5	1.0m	50				25p		TO5	
79	2N809	75m	7.0M	1.2m	#J	30	15	20	200m	5.0uØ	6.0Ø	1.0u	60	620nb	25	5.0	12p	FAΔ	u8	
80	2N810	75m	7.0M	1.2m	#J	30	15	20	200m	5.0uØ	6.0Ø	1.0u	60	620nb	25	5.0	12p	FAΔ	u9	
81#	2G301	75m	7.2M	1.3m	#J	15		10	50m	10u	6.0	1.0m	60				8.5p	A		
82#	GET870	75m	7.5M	1.5m	#J	15		10	10m	5.0u	6.0	1.0m	75					AØ	RO11	
83	2N815†	75m	8.0M	1.3m	#J	25	20	15	200m	10u	.75Ø	200mØ	80 †				14p	FA	u8	
84	2N816†	75m	8.0M	1.3m	#J	25	20	15	200m	10u	.75Ø	200mØ	80 †				14p	FA	u9	
85	2N825†	75m	8.0M	1.2m	#J	30	20	20	200m	6.0uØ	1.0Ø	10mØ	95 †	b		100	12p	FA	u8	
86	2N826†	75m	8.0M	1.2m	#J	30	20	20	200m	6.0uØ	1.0Ø	10mØ	95 †	b		100	12p	FA	u9	
87#	NKT153/25	75m	8.0M	1.5m	ØJ	6.0	6.0 Ø		10m	2.0u	4.5Ø	1.0mØ	80					A	TO22	
88#	NKT163	75m	8.0M	1.5m	ØJ	6.0	6.0 Ø		10m	2.0u	4.5Ø	1.0mØ	80					A	TO5	
89#	NKT163/25	75m	8.0M	1.5m	ØJ	9.0	9.0 Ø		25m	5.0uØ	4.5	1.0m	80				25p		TO5	
90	2N811	75m	10M	1.1m	#J	30	12	20	200m	5.0uØ	6.0Ø	1.0u	80	650nb	25	7.0	12p	FAΔ	u8	
91	2N812	75m	10M	1.2m	#J	30	12	20	200m	5.0uØ	6.0Ø	1.0u	80	650nb	25	7.0	12p	FAΔ	u9	
92#	NKT102†	75m	10M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	100				20p	A	TO22	
93#	NKT105†	75m	10M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	100				20p	A	TO22	
94#	NKT108†	75m	10M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	100				20p	A	TO22	
95#	NKT122†	75m	10M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	100				20p	A	TO5	
96#	NKT128†	75m	10M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	100				20p	A	TO5	
97#	V6/8R	75m	10M	1.5m	ØJ	6.0		6.0	30m		4.5	1.0m	80				25p	A	TO22	
98#	V6/8RJ	75m	10M	2.5m	ØJ	6.0			30m		4.5	1.0m	80				25p	A	TO5	
99#	V10/1SJ	75m	10M	2.5m	ØJ	10			500m		.35	400m	40 †					A	TO5	
100	2N803†	75m	11.M	1.3m	#J	30	15	20	400m	4.0uØ	.25Ø	1.0mΔ	55 †				14p	FA	u8	
101	2N804†	75m	11.M	1.3m	#J	30	15	20	400m	4.0uØ	.25Ø	1.0mΔ	55 †				14p	FA	u9	
102#	NKT152	75m	11M	1.5m	ØJ	6.0	6.0 Ø		10m	2.0u	4.5Ø	1.0mØ	100					A	TO22	
103#	NKT162	75m	11M	1.5m	ØJ	6.0	6.0 Ø		10m	2.0u	4.5Ø	1.0mØ	100					A	TO5	
104	2N799†	75m	12M	1.2m	#J	25		12	100m	5.0uØ	.15Ø	400uΔ	60 †				12p	FA†	u8	
105	2N800†	75m	12.M	1.3m	#J	25		12	100m	5.0uØ	.15Ø	.40mΔ	60 †				12p	FA†	u9	
106	CK86	75m	12.M	1.3m	#J	12			10m	10u	6.0Ø	1.0m	200				10p	FA	u11	
107#	GET872	75m	15.M	1.5m	#J	15		10	150m	5.0u	1.0Ø	25mØ	65 †					A	RO11	
108#	GET874	75m	15M	1.5m	#J	15			10m	5.0u	6.0	1.0m	70	650nb	27	6.0	8.5p	A†	R11	
109#	NKT151	75m	15M	1.5m	ØJ	6.0	6.0 Ø		10m	2.0u	4.5Ø	1.0mØ	150					A	TO22	
110	2N805†	75m	17.M	1.3m	#J	30	12	20	400m	4.0uØ	.25Ø	1.0mΔ	80 †				14p	FA	u8	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	2N806†	75m	17.M	1.3m	#J	30	12	20	400m	4.0uØ	.25Ø	1.0mΔ	80 †				14p	FA	u9		
2	2N807†	75m	18.M	1.3m	#J	25		12	100m	5.0uØ	.20Ø	20mØ	60 †					FAΔ	u8		
3	2N808†	75m	18.M	1.3m	#J	25		12	100m	5.0uØ	.20Ø	20mØ	60 †					FAΔ	u9		
4#	NKT101†	75m	18M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	150				20p	A	TO22		
5#	NKT104†	75m	18M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	150				20p	A	TO22		
6#	NKT107†	75m	18M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	150				20p	A	TO22		
7#	NKT121†	75m	18M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	150				20p	A	TO5		
8#	NKT127†	75m	18M	1.5m	ØJ	20	20 Ø	6.0	500m	40u	4.5Ø	1.0mØ	150				20p	A	TO5		
9	2N813	75m	20M	1.2m	#J	30	10	20	200m	5.0uØ	6.0Ø	1.0u	140	770nb	26	11	12p	FA	u8		
10	2N814	75m	20M	1.2m	#J	30	10	20	200m	5.0uØ	6.0Ø	1.0u	140	770nb	26	11	12p	FA	u9		
11#	GET875	75m	20.M	1.5m	#J	15		10	150m	5.0u	1.0Ø	25mØ	90 †					A	RO11		
12#	GET931	75m	28.M	1.5m	#	20		2.0	100m	50u	6.0Ø	1.0mØ	20				3.0p		TO5		
13#	GET691	75m	30M	1.5m	ØJ	20		1.0	10m	30u	6.0Ø	1.0mØ	60				2.0p	D	R11		
14#	GET692	75m	40M	1.5m	ØJ	20		1.0	10m	30u	6.0Ø	1.0mØ	60				2.0p	D	R11		
15#	GET693	75m	50M	1.5m	ØJ	20		1.0	10m	30u	6.0Ø	1.0mØ	60				2.0p	D	R11		
16	TIXM207	75m	99M§Δ	1.0m	#A	30	15	.50	50m	5.0uØ	6.0Ø	2.0mØ	10 †Δ				2.0p	DEM	R80		
17	2N2799†	75m	120M§Δ	1.0m	#S	30	15	2.0	100m		.30Ø	10mØ	50 †				2.5p	D	TO9		
18	TIXM201	75m	200M§Δ	1.0m	#A	30	15	.50	50m	5.0uØ	6.0Ø	2.0mØ	18 †Δ				2.0p	DEM	R80		
19	TIXM202	75m	220M§Δ	1.0m	#A	30	15	.50	50m	5.0uØ	6.0Ø	2.0mØ	30				2.0p	DEM	R80		
20	TIXM04	75m	224M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.0mØ	22 Δ				1pØ	PEØ	R97c		
21	2N2797†	75m	235M§	1.0m	#S	40	20	2.5	100m		.30Ø	10mØ	80 †				2.5p	D	TO9		
22	2N2798†	75m	235M§	1.0m	#S	60	25	2.0	100m		.30Ø	10mØ	50 †				2.5p	D	TO9		
23	2N695†	75m	250M§	1.0m	#J	15	15	3.5	50m	3.0uØ	.30Ø	10mØ	40 †				3.5p	MEΔ	TO17		
24#	2SA403	75m	280M§		#J	20	15 §	.20	10m	10uØ	6.0Ø	1.0m	10				1.5p	ME	TO1		
25	TIXM02	75m	282M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.0mØ	28 Δ				1pØ	PEØ	R97c		
26#	2SA463	75m	300M§	1.3m	#J	20	20 Ø	.50	10m	30u	6.0Ø	3.0m	10				1.0p	ME	TO44		
27	TIXM204	75m	300M§	1.0m	#A	30	15	.50	50m	5.0uØ	6.0Ø	2.0mØ	25				2.0p	DEM	R80		
28	TIXM205	75m	300M§	1.0m	#A	30	15	.50	50m	5.0uØ	6.0Ø	2.0mØ	30				2.0p	DEM	R80		
29	TIXM206	75m	300M§	1.0m	#A	30	15	.50	50m	5.0uØ	6.0Ø	2.0mØ	25				2.0p	DEM	R80		
30	XT300†	75m	300M§Δ	1.0m	#S	25	12	2.5	100m	3.0u	.30Ø	10mØ	40 †Δ				4pØ	D	TO18		
31	TIXM07	75m	315M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.5mØ	1.6 Δ				1pØ	PEØ	R97c		
32	TIXM03	75m	316M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.0mØ	3.2 Δ				1pØ	PEØ	R97c		
33	TIXM203	75m	350M§Δ	1.0m	#A	30	15	.50	50m	5.0uØ	6.0Ø	2.0mØ	10 †Δ				2.0p	DEM	R80		
34	TIXM01	75m	355M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.0mØ	3.5 Δ				1pØ	PEØ	R97c		
35	TIXM06	75m	380M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.5mØ	8.4 Δ				1pØ	PEØ	R97c		
36	TIXM08	75m	380M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.5mØ	1.2 Δ				1pØ	PEØ	R97c		
37#	2SA54	75m	400M§		#J	20	15 §	.20	10m	5.0uØ	6.0Ø	2.0m	12				1.2p	ME	R77		
38#	2SA404	75m	400M§		#J	20	15 §	.20	10m	10u	6.0Ø	1.0m	12				1.2p	ME	R77		
39#	GMO378	75m	400M§	1.0m	#J	18		.30	50m	5.0uØ	8.0Ø	4.5mØ	20 †Δ				1.8p	MEØ	TO18		
40	TIXM05	75m	450M§Δ	1.0m	#A	20	10	.20	30m	10uØ	10Ø	1.5mØ	2.2 Δ				1pØ	PEØ	R97c		
41	TIX3032	75m	500M§	1.0m	#S	25	15	.20	100m	10uØ	12Ø	6.0mØ	25 Δ					PEØ	TO72	Ø	
42	XT400	75m	600M*	1.0m	#S	40	30	1.0	100m	3.0u							2.0p	D	TO18		
43#	GM290	75m	700M§	1.0m	#A	18	15	.30	50m	5.0uØ	12Ø	3.0mØ	20 †Δ				1.5p	EMØ	ZB12		
44#	2SA229	75m	750M	1.2m	ØJ	20		.20	5.0m		6.0	2.0m	10				1.0p	ME	TO17		
45#	2SA230	75m	750M	1.2m	ØJ	20		.20	5.0m		6.0	2.0m	10				1.0p	ME	TO17		
46	2N700/18	75m	800M§	1.0m	#J	25	20	20	50m	2.0uØ	6.0Ø	2.0m	10	b	17		1.1p	MEt	TO18		
47	2N700A/18	75m	800M§	1.0m	#J	25	25	.20		100u	6.0Ø	2.0m	4.0 Δ				1.4pØ	MEt	TO18		
48#	GMO290	75m	800M§	1.0m	#J	20	15	.30	50m	5.0uØ	12Ø	3.0mØ	20 †Δ				1.2p	MEØ	TO18		
49#	TIXM10	75m	900M§	1.0m	#A	18	12	.20	50m	10uØ	8.0Ø	3.0mØ	90 †				750f§	PEØ	X45		
50#	TIXM11	75m	900M§	1.0m	#A	18	12	.20	50m	10uØ	8.0Ø	3.0mØ	100 †				750f§	PEØ	X45		
51	MM2503	75m	1.0G§Δ	1.0m	#J	30	15	.50	20m	10uØ	6.0Ø	3.0mØ	25 Δ				2pØ	EAØ	RO38		
52	2N1405	75m	1.1G*	1.0m	#J	30	20	.50	50m	100u	6.0Ø	2.0mØ	10 Δ				3.0p	MEØ	TO12		
53	2N1406	75m	1.1G*	1.0m	#J	30	20	.50	50m	100u	6.0Ø	2.0mØ	10 Δ				3.0p	MEØ	TO12		
54	2N1407	75m	1.1G*	1.0m	#J	30	20	.50	50m	100u	6.0Ø	2.0mØ	10 Δ				3.0p	MEt	TO12		
55	2N2363	75m	1.1G*	1.0m	#J	30	20	.50	50m	5.0uØ	6.0Ø	2.0mØ	10				2.0p	MEØ	RO38		
56	TIX3024	75m	1.5G§Δ	1.0m	#S	15	7.0	.30	50m	6.0uØ	5.0Ø	3.0mØ	30 Δ				3.0pØ	EMØ	u26		
57	TIX895†	75m	2.5G§	1.0m	#A	5.0	3.0	.80	75m	5.0uØ	2.5Ø	15mØ	3.0 Δ				1.5pØ	DEM	u25		
58	2N23	80m			*S	50	50	40	40m	2mØ								PCΔ			
59#	2NJ52	80m			*A	20		2.5	30m	12uØ	9.0	1.0mØ	40					A	R18		
60#	2NJ53	80m			*A	20		2.5	30m	12uØ	1.0Ø	30mØ	60 †					A	R18		
61#	2SB74	80m			#J	16		.50	15m	10u	6.0Ø	1.0m	48					A	TO1		
62#	2SB384	80m		1.3m	#J	20			30m	10uØ	6.0Ø	1.0m	60	23u	1.6k	3.5		A	TO1		
63#	2SB385	80m		1.3m	#J	20	15 §		30m	10uØ	1.0Ø	50mØ	50 †					A	TO1		
64#	2T14A	80m		2.0m	*	25			20m	10uØ	6.0	1.0m	90				20p	A			
65#	2T15	80m		2.0m	*	25			20m	10uØ	6.0	1.0m	45				20p	A			
66#	2T16	80m		2.0m	*	25			20m	10uØ	6.0	1.0m	30				20p	A			
67#	2T17	80m		2.0m	*	25			20m	10uØ	6.0	.50m	13				20p	A			
68	CK17	80m	18m	1.3m	#J	30	10	20	200m	5.0uØ	6.0Ø	1.0m	140	770nb	26	11	12p	FA	u11		
69#	GFT20	80m	600k	1.6m	ØJ	15		10		20u	3.0	1.0m	33					A			
70#	GFT20/15	80m	600k	1.6m	ØJ	15		10	50m	20u	3.0	1.0m	33					A	TO5		
71#	GFT20/30	80m	600k	1.6m	ØJ	30		10	50m	20u	3.0	1.0m	33					AΔ	TO5		
72#	GFT20/60	80m	600k	1.6m	ØJ	60		10		20u	3.0	1.0m	33					AΔ	TO30		
73#	GFT20R	80m	600k	1.6m	ØJ	15		10		20u	3.0	1.0m	33					A	TO30		
74	CK64	80m	.80M	1.3m	#J	45	29 Ø	12	100m	5.0uØ	6.0Ø	1.0m	25	18u	900	3.5		FAt	u11		
75	CK64A	80m	.80M	1.3m	#J	45	29 Ø	12	100m	5.0uØ	6.0Ø	1.0m	25	18u	900	3.5		FAt	u12		
76	CK64B	80m	.80M	1.3m	#A	45					6.0Ø	1.0mØ	22 †					A	u8		
77	CK64C	80m	.80M	1.3m	#A	45					6.0Ø	1.0mØ	22 †					A	u9		
78#	GFT25	80m	850k	1.6m	ØJ	15		10		20u	3.0	2.0m	50					A			
79#	GFT25/15	80m	850k	1.6m	ØJ	15		10	50m	20u	3.0	2.0m	50					A	TO5		
80#	GFT25/30	80m	850k	1.6m	ØJ	30		10	50m	20u	3.0	2.0m	50					AΔ	TO5		
81#	GFT25/60	80m	850k	1.6m	ØJ	60		10		20u	3.0	2.0m	50					AΔ	TO30		
82#	GFT25R	80m	850k	1.6m	ØJ	15		10		20u	3.0	2.0m	50					A	TO30		
83#	2SB44	80m	1.0M	1.5m	ØJ	30		12	50m	14uØ	6.0	1.0m	110				35p	A	TO1	A	
84#	2SB46	80m	1.0M	1.6m	ØJ	25		12	150m	14u	6.0	1.0m	150	200nb	30	2.5	35p	A	TO1		
85#	2SB47	80m	1.0M	1.6m	ØJ	25		12	50m	14u	6.0	1.0m	150	200nb	30	2.5	35p	A	TO1		
86	CK65	80m	1.0M	1.3m	#J	45	24	12	100m	5.0uØ	6.0Ø	1.0m	45	25u	1.8k	5.0		A	u11		
87	CK65A	80m	1.0M	1.3m	#J	45	24	12	100m	5.0uØ	6.0Ø	1.0m	45	25u	1.8k	5.0		A	u12		
88	CK65B	80m	1.0M	1.3m	#A	45					6.0Ø	1.0mØ	45 †					A	u8		
89	CK65C	80m	1.0M	1.3m	#A	45					6.0Ø	1.0mØ	45 †					A	u9		
90#	GFT21	80m	1.1M	1.6m	ØJ	15		10		20u	3.0	3.0m	90					A			
91#	GFT21/15	80m	1.1M	1.6m	ØJ	15		10	50m	20u	3.0	3.0m	90					A	TO5		
92#	GFT21/30	80m	1.1M	1.6m	ØJ	30		10	50m	20u	3.0	3.0m	90					AΔ	TO5		
93#	GFT21/60	80m	1.1M	1.6m	ØJ	60		10		20u	3.0	3.0m	90					AΔ	TO30		
94#	GFT21R	80m	1.1M	1.6m	ØJ	15		10		20u	3.0	3.0m	90					A	TO30		
95	CK22	80m	1.2M	1.3m	#J	20	15	12	100m	10u	6.0Ø	1.0m	90	36u	3.6k	7.0		FAØ	u11		
96	CK22A	80m	1.2M	1.3m	#J	20	15	12	100m	10u	6.0Ø	1.0m	90	36u	3.6k	7.0		FAØ	u12		
97	CK66	80m	1.2M	1.3m	#J	35	20	12	100m	5.0uØ	6.0Ø	1.0m	90	36u	3.6k	7.0		FA	u11		
98	CK66A	80m	1.2M	1.3m	#J	35	20	12	100m	5.0uØ	6.0Ø	1.0m	90	36u	3.6k	7.0		FAt	u12		
99	CK66B	80m	1.2M	1.3m	#A	35					6.0Ø	1.0mØ	90 †					A	u8		
100	CK66C	80m	1.2M	1.3m	#A	35					6.0Ø	1.0mØ	90 †					A	u9		
101#	GFT22	80m	1.3M	1.6m	ØJ	15		10		20u	3.0	5.0m	150					A			
102#	GFT22/15	80m	1.3M	1.6m	ØJ	15		10	50m	20u	3.0	5.0m	150					A	TO30		
103#	GFT22/30	80m	1.3M	1.6m	ØJ	30		10	50m	20u	3.0	5.0m	150					AΔ	TO30		
104#	GFT22/60	80m	1.3M	1.6m	ØJ	60		10		20u	3.0	5.0m	150					AΔ	TO30		
105#	GFT22R	80m	1.3M	1.6m	ØJ	15		10		20u	3.0	5.0m	150					A	TO30		
106	CK67	80m	1.5M	1.3m	#J	35	15	12	100m	5.0uØ	6.0Ø	1.0m	180	50u	7.2k	95		FAt	u11		
107	CK67A	80m	1.5M	1.3m	#J	35	15	12	100m	5.0uØ	6.0Ø	1.0m	180	50u	7.2k	95		FAt	u12		
108	CK67B	80m	1.5M	1.3m	#A	35					6.0Ø	1.0mØ	180 †					A	u8		
109	CK67C	80m	1.5M	1.3m	#A	35					6.0Ø	1.0mØ	180 †					A	u9		
110	2N159†	80m	2.0MΔ		#	50		50	10m									PC	OV4		

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	MAX. Ic (A)	Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2V464	80m	2.0M	2.0m		15			20m	6.0u	6.0	1.0m	20				15p	PA		
2#	2V465	80m	2.0M	2.0m		15			20m	6.0u	6.0	1.0m	50				15p	PA		
3	CK13	80m	2.5M	1.3m	#J	30	18	20	200m	5.0uØ	6.0Ø	1.0m	30	600nb	25	3.0	12p	FAØ	u11	
4	CK13A	80m	2.5M	1.3m	#J	30	18	20	200m	5.0uØ	6.0Ø	1.0m	30	600nb	25	3.0	12p	FAØ	u12	
5	OC46N	80m	3.0M§Δ	1.6m	ØJ	20	20		100m	3.0uØ	0.0	15mØ	20 †Δ					AΔ	TO1	A
6#	2V482	80m	3.5M	2.0m		15			20m	5.0u	6.0	1.0m	40				12p	PA		
7#	2SA14	80m	4.0M		#J	16		.50	15m	10u	6.0Ø	1.0m	50				10p	A	TO1	
8#	2V466	80m	4.0M	2.0m		15			20m	6.0u	6.0	1.0m	80				15p	PA		
9#	2V483	80m	4.0M	2.0m		15			20m	5.0u	6.0	1.0m	60				12p	PA		
10	CK25†	80m	4.0M	1.3m	#J	30	20	20	400m	4.0uØ	.25Ø	1.0mΔ	30 †				14p	FA	u11	
11	CK25A†	80m	4.0M	1.3m	#J	30	20	20	400m	4.0uØ	.25Ø	1.0mΔ	30 †				14p	FA	u12	
12#	OC47N	80m	4.5M§Δ	1.6m	ØJ	20	20 Ø		100m	3.0uØ	0.0	15mØ	50 †Δ					AΔ	TO1	A
13	2N1673	80m	5.0M	1.3m	#	35		.50	10m	50uØ	9.0	1.0m	100				3pØ	D	TO33	
14#	2SA296	80m	5.0M		#J	15			15m	5.0uØ	6.0Ø	1.0m	45				13p	A	TO1	
15#	2SA325	80m	5.0M		#J						1.0Ø	80mØ	60 †				13p	A	TO1	
16#	2SA151	80m	6.0M		#J	9.0		.50	15m	.10u	3.0Ø	1.0m	50				13p	A		
17	CK26†	80m	6.0M	1.3m	#J	30	18	20	400m	4.0uØ	.25Ø	1.0mΔ	40 †				14p	FA	u11	
18	CK26A†	80m	6.0M	1.3m'	#J	30	18	20	400m	4.0uØ	.25Ø	1.0mΔ	40 †				14p	FA	u12	
19#	2V467	80m	7.0M	2.0m		15			20m	6.0u	6.0	1.0m	120				15p	PA		
20	CK14	80m	7.0M	1.3m	#J	30	15	20	200m	5.0uØ	6.0Ø	1.0m	60	620nb	25	5.0	12p	FA	u11	
21	CK14A	80m	7.0M	1.3m	#J	30	15	20	200m	5.0uØ	6.0Ø	1.0m	60	620nb	25	5.0	12p	FA	u12	
22#	2SA13	80m	8.0M	1.3m	#J	12		.50	15m	10u	6.0Ø	1.0m	55				33p	A	TO1	
23#	2SA152	80m	10.M		#J	9.0		.50	15m	.10u	3.0Ø	1.0m	55				13p	A		
24#	2SA297	80m	10.M		#J	16			15m	5.0uØ	6.0Ø	1.0m	65				13p	A	TO1	
25#	2SA326	80m	10.M		#J						1.0Ø	80mØ	60 †				13p	A	TO1	
26#	2V484	80m	10.M	2.0m		15			20m	5.0u	6.0	1.0m	100				12p	PA		
27	CK16	80m	10M	1.3m	#J	30	12	20	200m	5.0uØ	6.0Ø	1.0m	80	650nb	25	7.0	12p	FA	u11	
28	CK16A	80m	10M	1.3m	#J	30	12	20	200m	5.0uØ	6.0Ø	1.0m	80	650nb	25	7.0	12p	FA	u12	
29#	2V485	80m	11.M	2.0m		15			20m	5.0u	6.0	1.0m	80				12p	PA		
30	CK27†	80m	11.M	1.3m	#J	30	15	20	400m	4.0uØ	.25Ø	1.0mΔ	55 †				14p	FA	u11	
31	CK27A	80m	11.M	1.3m	#J	30	15	20	400m	4.0uØ	.25Ø	1.0mΔ	55 †				14p	FA	u12	
32#	2SA16	80m	12.M	1.3m	#J	12		.50	15m	10u	6.0Ø	1.0m	60				32p	A	TO1	
33#	2V486	80m	12.M	2.0m		15			20m	5.0u	6.0	1.0m	120				12p	PA		
34	CK4†	80m	12.M	1.3m	#J	25		12	100m	5.0uØ	.20Ø	1.0mΔ	40				12p	FA	u11	
35	CK4A†	80m	12.M	1.3m	#A	25		12	100m	5.0uØ	.15Ø	.40mΔ	60 †				12p	FA	u12	
36	CK28†	80m	17.M	1.3m	#J	30	12	20	400m	4.0uØ	.25Ø	1.0mΔ	80 †				14p	FA	u11	
37	CK28A†	80m	17.M	1.3m	#J	30	12	20	400m	4.0uØ	.25Ø	1.0mΔ	80 †				14p	FA	u12	
38	CK17A	80m	18M	1.3m	#J	30	10	20	200m	5.0uØ	6.0Ø	1.0m	140	770nb	26	11	12p	FA	u12	
39#	2SA17	80m	19.M		#J	12		.50	15m	6.0u	6.0Ø	1.0m	100				9.5p	A	TO1	
40#	2SA18	80m	19M	1.3m	ØJ	21		12	15m		6.0Ø	1.0m	150				9.5p	A	TO1	
41#	2SA356	80m	25.M			9.0		.50	10m	15u	3.0Ø	1.0m	80				2.8p	D	TO1	
42#	2SA383	80m	25.M	1.3m	#S	25			10m	12uØ	6.0	1.0m	40				2.5p	D	TO1	
43#	2V562	80m	25.M	1.0m		30			10m	10u	9.0	1.0m	50				2.5p	PD		
44#	2V563	80m	25.M	1.0m		30			10m	10u	9.0	1.0m	100				2.5p	PD		
45	2N247	80m	30.M		ØA	35		1.0	10m	16u	9.0Ø	1.0mØ					1.7p	DΔ		
46	JAN2N274	80m	30M	1.8m	ØA	35		.50	10m	8.0uØ	12Ø	1.0m	60				1.7p	A	TO44	
47	2N370	80m	30M	1.6m	ØA	20		1.5	10m	20uØ	12Ø	1.0m	60					D	TO7	H
48	2N370/33	80m	30.M	667u	#J	24		.50	10m	10uØ	12Ø	1.0mØ	107				3pØ	D	TO33	
49	2N371	80m	30M	1.6m	ØA	20		.50	10m	20uØ	12Ø	1.0m	60					D	TO7	
50	2N371/33	80m	30.M	2.0m	#J	24		.50	10m	10uØ	12Ø	1.0mØ	97				3pØ	D	TO33	
51	2N372	80m	30M	1.6m	ØA	20		.50	10m	20uØ	12Ø	1.0m	60					D	TO7	H
52	2N372/33	80m	30.M	2.0m	#J	24		.50	10m	10uØ	12Ø	1.0mØ	97				3pØ	D	TO33	
53	2N374	80m	30M	1.3m	Ø	25		.50	10m	8.0u	12Ø	1.0mØ	60	1.0u	2.6k			D	TO7	
54	2N544	80m	30M	1.1m	ØA	18		1.0	10m	8.0uØ	12	1.0m	60				1.6p	D	TO7	
55	2N544/33	80m	30.M	1.0m	#J	24		1.0	10m	16uØ	12Ø	1.0mØ	97				3pØ	D	TO33	
56#	2SA83	80m	30.M	1.3m	#J	25		.50	10m		9.0Ø	1.0m	60					D	TO44	
57#	2SA357	80m	30.M			9.0		.50	10m	15u	3.0Ø	1.0m	80				2.8p	D	TO1	
58#	2SA367	80m	30.M	1.3m	#J	20	20 Ø	.50	10m	15uØ	9.0Ø	1.0m	70				2.5p	D	TO1	
59#	2SA382	80m	30.M	1.3m	#S	25			10m	12uØ	6.0	1.0m	55				2.5p	D	TO1	
60#	2V560	80m	30.M	1.0m		25			10m	10u	9.0	1.0m	70				2.2p	PD		
61#	2V561	80m	30.M	1.0m		30			10m	10u	9.0	1.0m	30				2.2p	PD		
62#	XA121	80m	30M	1.3m	ØA	25		.50	10m	8.0u	12Ø	1.0mØ	60	1.5u	2.2k		1.6p	D	TO7	
63#	XA122	80m	30M	1.3m	ØA	25		.50	10m	8.0u	12Ø	1.0mØ	60	1.0u	2.6k			D	TO7	
64#	XA123	80m	30.M		ØA	20		.50	10m	20u	12Ø	1.0mØ	60					D	TO7	
65#	XA124	80m	30.M		ØA	20		.50	10m	20u	12Ø	1.0mØ	60					D	TO7	
66#	XA126	80m	30M	1.3m	ØA	20						1.0mØ	60					D	TO7	
67	2N1425	80m	33M	1.6m	ØA	24		.50	10m	12uØ	12Ø	1.0m	50				2.0p	D	TO7	
68	2N1426	80m	33M	1.6m	ØA	24		.50	10m	12uØ	12Ø	1.0m	130					D	TO7	
69	2N1526/33	80m	33.M	2.5m	#A	24		.50	10m	16uØ	12Ø	1.0m	130				2.0p	D	TO33	
70#	2SA298	80m	35.M	1.3m	#J	40			10m	8.0uØ	6.0Ø	1.0m	55				2.5p	D	TO44	
71#	2SA327	80m	35.M		#J						1.0Ø	80mØ	30 †				2.5p	D	TO44	
72#	2SA381	80m	35.M	1.3m	#S	25			10m	12uØ	6.0	1.0m	50				2.5p	D	TO1	
73#	2V559	80m	35.M	1.0m		25			10m	10u	9.0	1.0m	120				2.1p	PD		
74#	2SA81	80m	40.M	1.3m	#J	20		.50	10m		9.0Ø	1.0m	80					D	TO44	
75#	2SA84	80m	40.M	1.3m	#J	25		.50	10m		9.0Ø	1.0m	80					D	TO44	
76#	2SA368	80m	40.M	1.3m	#J	20	20 Ø	.50	10m	15uØ	9.0Ø	1.0m	70				2.5p	D	TO1	
77#	2SA375†	80m	40.M	1.3m	#J	30	30 Ø	1.5	100m	6.0uØ	1.0Ø	50mØ	40 †				2.5p	DΔ	TO1	
78#	2SA384	80m	40.M	1.3m	#S	25			10m	12uØ	6.0	1.0m	60				2.5p	D	TO1	
79	3746	80m	40.M			34		.50	20m		12		65 †					DΔ		
80	2N640	80m	42M	1.3m	ØA	34		1.0	10m	5.0uØ	12Ø	1.0mØ	60				1.6p	D	TO7	A
81	2N641	80m	42M	1.3m	ØA	34		1.0	10m	7.0uØ	12Ø	1.0mØ	60				1.6p	D	TO7	A
82	2N642	80m	42M	1.3m	ØA	34		1.0	10m	7.0uØ	12Ø	1.0mØ	60				1.6p	D	TO7	A
83#	2SA94	80m	45.M	1.3m		9.0												D		
84#	2SA133	80m	45.M		#J	9.0		.50	10m	30u	3.0Ø	1.0m	50				6.5p	ME		
85#	2SA364	80m	45.M	1.3m	#J	9.0	9.0 Ø	.50	10m	30u	3.0Ø	1.0m	60				6.0p	ME	TO44	
86#	2SA80	80m	50.M	1.3m	#	20		.50	10m		9.0	1.0m	100						TO44	
87#	2SA82	80m	50.M	1.3m	#J	20		.50	10m		9.0Ø	1.0m	85					D	TO44	
88#	2SA85	80m	50.M	1.3m	#J	25		1.0	10m		9.0Ø	1.0m	85					D	TO44	
89#	2SA131	80m	50.M		#J	9.0		.50	10m	.30u	3.0Ø	1.0m	40				6.5p	ME		
90#	2SA365	80m	50.M	1.3m	#J	9.0	9.0 Ø	.50	10m	30u	3.0Ø	1.0m	60				6.0p	ME	TO44	
91#	2SA369	80m	50.M	1.3m	#J	20	20 Ø	.50	10m	15uØ	9.0Ø	1.0m	80				2.5p	D	TO1	
92#	2SA306	80m	55.M	1.3m	#J	40			10m	8.0uØ	6.0Ø	1.0m	65				2.3p	D	TO44	
93#	2SA132	80m	60.M		#J	9.0		.50	10m	.30u	3.0Ø	1.0m	80				6.5p	ME		
94#	2SA380	80m	60.M	1.3m	#S	25			10m	12uØ	6.0	1.0m	70				2.5p	D	TO1	
95#	2SA130	80m	75.M		#J	9.0		.50	10m	.30u	3.0Ø	1.0m	80				6.5p	ME		
96#	2SA307	80m	75.M	1.3m	#J	40			10m	8.0uØ	6.0Ø	1.0m	70				2.2p	D	TO44	
97#	2SA366	80m	75.M	1.3m	#J	9.0	9.0 Ø	.50	10m	30u	3.0Ø	1.0m	60				6.0p	ME	TO44	
98#	NKT675	80m	75M§	1.6m	ØJ	20	20 Ø	1.0	10m	8.0uØ	4.5Ø	1.0mØ	40 Δ				3.0pØ	ME	TO1	
99#	NKT677	80m	75M§	1.6m	ØJ	20	20 Ø	1.0	10m	8.0uØ	6.0Ø	1.0mØ	40 Δ				3.0pØ	ME	TO1	
100#	2SA88	80m	90.M		#J	25		.50	10m	.50u	9.0Ø	1.5m	50				2.3p	D		
101#	2SA89	80m	90.M		#J	25		.50	10m	.50u	9.0Ø	1.5m	70				2.3p	D		
102#	2SA233	80m	90.M	1.3m	#J	20		.50	10m	30u	6.0Ø	1.0m	50				2.3p	ME	TO1	
103	2N1713	80m	100MΔ		#S	12	30	1.0	10m	12u	6.0Ø	1.0mØ	40 Δ				3.1p		TO7	
104#	2SA360	80m	110M	1.3m	#J	20	20 Ø	.50	10m	30u	9.0Ø	1.0m	70				2.3p	ME	TO44	
105#	2SA361	80m	125M	1.3m	#J	20	20 Ø	.50	10m	30u	6.0Ø	1.0m	70				2.3p	ME	TO44	
106#	2SA87	80m	130M		#J	25		.50	10m	.50u	9.0Ø	1.5m	100				2.3p	D		
107#	2SA134	80m	140M		#J	20		.50	10m	.30u	6.0Ø	1.0m	70				2.5p	ME		
108#	NKT676	80m	140M	1.6m	ØJ		20 Ø		10m	8.0u	4.5	1.0m	40 Δ				2.0p		TO1	
109#	2SA135	80m	150M		#J	20		.50	10m	.30u	6.0Ø	1.0m	70				2.5p	ME		
110#	2SA288	80m	250M§Δ	1.3m	#J	20		.50	10m	30u	6.0Ø	3.0m	10 Δ				1.2pØ	ME	TO7	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	COMMON EMITTER hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1#	2SA289	80m	250M§Δ	1.3m	#J	20		.50	10m	30u	6.0Ø	3.0m	10 Δ				1.2pØ	ME	TO7	
2#	2SA290	80m	250M§Δ	1.3m	#J	20		.50	10m	30u	6.0Ø	3.0m	10 Δ				1.2pØ	ME	TO7	
3#	THP501	80m	280M	1.3m	#J	20		1.0	10m	20u	9.0	2.0m	65 Ø					Ø	TO12	
4#	THP502	80m	280M	1.3m	#J	20		1.0	10m	20u	9.0	2.0m	55 Δ					Ø	TO12	
5#	504T1	80m	300M§Δ	1.3m	#J	20	20 §	1.0	10m	10u	9.0Ø	2.0mØ	100 †Δ				2pØ	MD	R73	
6#	505T1	80m	330M§Δ	1.3m	#J	20	20 §	1.0	10m	10u	9.0Ø	2.0mØ	30 †Δ				2pØ	MD	R73	
7#	508T1	80m	330M§Δ	1.3m	#J	20	20 §	1.0	10m	10u	9.0Ø	2.0mØ	15 †Δ				2pØ	MD	R73	
8#	501T1	80m	345M§Δ	1.3m	#J	20	20 §	1.0	10m	10u	9.0Ø	2.0mØ	30 †Δ				1.5pØ	MD	R73	
9#	503T1	80m	345M§Δ	1.3m	#J	20	20 §	1.0	10m	10u	9.0Ø	2.0mØ	15 †Δ				1.5pØ	MD	R73	
10#	506T1	80m	380M§Δ	1.3m	#J	20	20 §	1.0	10m	10u	9.0Ø	2.0mØ	30 †Δ				1.5pØ	MD	R73	
11#	507T1	80m	380M§Δ	1.3m	#J	20	20 §	1.0	10m	10u	9.0Ø	2.0mØ	15 †Δ				1.5pØ	MD	R73	
12#	2SC125	80m	700M		#	20		.50	10m	30u	6.0	3.0m	10 Δ				.90p	ME	TO7	
13#	OC975	83m		1.6m	ØJ	30			10m		6.0	1.0m	36 Δ					AD	TO7	H
14#	2SA302	83m	6.0M	1.6m	ØJ	20		15	100m	3.0uØ		100m	20 †					A	R9	
15#	2SA303	83m	9.0M	1.6m	ØJ	20		15	100m	3.0uØ		100m	50 †					A	R9	
16	2N1515	83m	70.M§	1.7mØ	J	20			10m	13uØ	6.0Ø	1.0m	100					AD	TO7	H
17	2N1516	83m	70M§	1.6m	ØJ	20			10m	13uØ	6.0	1.0m	67 †				3.0p	AD	TO7	H
18	2N1517	83m	70.M§	1.7mØ	J	20			10m	13uØ	6.0	1.0m	67 †				6.0p	AD	TO7	H
19	JAN2N1517	83m	70M§	1.6m	ØJ	20			10m	13uØ	6.0	1.0m	67 †				6.0p	AD	TO7	
20#	2SA308	83m	450M§	1.6m	ØJ	20		.30	5.0m	13uØ	12	1.0m	250				500f	AD	TO7	
21#	2SA309	83m	600M§	1.6m	ØJ	20		.30	5.0m	13uØ	12	1.0m	250				500f	AD	TO7	
22	A1378	86m	160M§	2.2m	#J	32	32 §	1.0	30m	3.0uØ	10	1.0m	50		30			PDØ	TO12	
23	2N26	90m			*S	30	40	40	40m	.7mØ								PCΔ		
24	A1220	90m		11u		25	25 Ø	.30	15m	3.5uØ	10	2.0mØ	20 †					PD	TO18	
25	GT24H	90m			#J	12				10uØ			30					A		
26	GT210H	90m			ØS	12			50m	25uØ	4.5	1.0m	120					A		
27#	NKT255	90m	1.0M	1.5m	#J	9.0	9.0 Ø		10m	5.0u	4.5Ø	1.0mØ	25 Δ					A	TO22	
28#	NKT265	90m	1.0M	1.5m	#J	9.0	9.0 Ø		10m	5.0u	4.5Ø	1.0mØ	25 Δ					A	TO5	
29	TR801	90m	2.5M		ØS	12			100m	6.0u	4.5	1.0m	25					A		
30	TR802	90m	5.0M		ØS	10			100m	6.0u	4.5	1.0m	40					A		
31#	NKT5	90m	7.5MΔ	1.5m	#A	16	10	15	500m	5.0u	.50	10mØ	7.0 Δ				10p	Δ	R65	
32#	NKT24	90m	7.5MΔ	1.5m	#A	16	10	10	500m	5.0u	.50Ø	10mØ	7.0 Δ				10p	AΔ	TO5	
33#	NKT25	90m	7.5MΔ	1.5m	#A	16	10	10	500m	5.0u	.50Ø	10mØ	7.0 Δ				10p	AΔ	TO5	
34#	38T1	90m	10.M	1.5m	#J	20			50m			10mØ	50 †							
35	TR803	90m	11.M		ØS	10			100m	6.0u	4.5	1.0m	70					A		
36#	39T1	90m	15.M	1.5m	#J	14			50m			10mØ	100 †							
37#	NKT4	90m	15.MΔ	1.5m	#A	16	10	10	500m	5.0u	.50	10mØ	7.0 Δ				10p	Δ	R65	
38	TR804	90m	17.M		ØS	6.0			100m	6.0u	4.5	1.0m	120					A		
39	TIX2000	90m	4.2G*	1.5m	#J	15		.50	25m	2.0uØ	6.0Ø	3.0mØ	10 †Δ				1.3p	ME	RO38	
40	PADT40	94m	300M	5.5m	Ø	20		2.5	50m		.90	30m	50				5.0p	AD	TO18	
41	2N51	100m			*A	50		50	8.0m				.67					PCΔ		
42	2N1388	100m		1.7m	#J				100											
43	2N649/5	100m			ØA	20		2.5	50m		1.0Ø	50mØ	65 †					A	TO5	
44	JAN2N694	100m		1.3m	#J	30	15	1.0	50m	3.0uØ	6.0	2.0m	9.0 Δ		120		2.0pØ	Dt	TO28	
45	2N2672A	100m		2.0m	#S	32	32 Ø	2.0	10m	8.0uØ	6.0Ø	1.0mØ	40 †Δ				2.5pØ	AD	TO39	
46	3N21†	100m			*A	60		50					2.5					PC§		
47#	EW51	100m			*A	20			15m	2.2m			.67					PCΔ		
48	GT14H	100m			ØJ	12			50m				28					A		
49	GT20H	100m			ØJ	12			50m				42					A		
50	GT81H	100m			ØJ	12			50m				80					A		
51	MA898	100m		1.6m	#J	25	25 Ø	10	100m	100u	6.0Ø	1.0m	20 Δ					A	TO5	
52	MA899	100m		1.6m	#J	25	25 Ø	10	100m	100u	6.0Ø	1.0m	40 Δ					A	TO5	
53	MA900	100m		1.6m	#J	25	25 Ø	10	100m	100u	6.0Ø	1.0m	90 Δ					A	TO5	
54	MA901	100m		1.6m	#J	20	20 Ø	10	100m	100u	6.0Ø	1.0m	20 Δ					A	TO5	A
55	MA902	100m		1.6m	#J	15	15 Ø	5.0	100m	100u	6.0Ø	1.0m	15 Δ					A	TO5	A
56	MA903	100m		1.6m	#J	15	15 Ø	5.0	100m	100u	6.0Ø	1.0m	20 Δ					A	TO5	A
57	MA904	100m		1.6m	#J	15	15 Ø	5.0	100m	100u	6.0Ø	1.0m	180 Δ					A	TO5	A
58	SYL1592	100m			ØJ		15	10	200m		.40Ø	1.0mΔ	25 †				30p	A		
59	SYL2120	100m		1.3m	#J	15	15	3.5	50m	3.0uØ	.30Ø	10mØ	25 †Δ					DM	u1	
60	T2351	100m		1.1m	#S	20	20 Ø	.40		50u	15	2.0m	6.0 Δ				.90p	MD	X13	
61#	TK49C	100m		2.0m	Ø	20		20		8.0u*	0.0	5.0m	15 †Δ					A	R47a	
62	TR20	100m			#S	30			200m	5.0uØ			20					A		
63	2N1432	100m	.01M†	1.3m	#J	45	45 §	.50	10m	15u	15Ø	2.0mØ	60					D	TO33	
64	TI320	100m	400kΔ			30			50m	20u	5.0Ø	1.0m	34 †	850nb	38	5.4		A	R44	
65#	GT11	100m	.42M		ØS	9.0			10m	5.0u	4.5	1.0m	30					A		
66	2N199	100m	500k	1.5m	#	30		6.0	30m	5.0uØ	5.0	1.0m	25				40p			
67	OC71N	100m	500k	2.2m	ØJ	30			10m	5.0u	2.0	3.0m	47	80	800	5.4		A	TO1	A
68	TI321	100m	500kΔ			30			50m	20u	5.0Ø	1.0m	95 †	830nb	38	8.0		A	R44	
69	TR758A	100m	.50M		#S	20			200m	5.0uØ	4.5	1.0m	15							
70	2N198	100m	600k	1.5m	#	30		6.0	30m	5.0uØ	5.0	1.0m	40				40p			
71	TR63	100m	.60M	1.7m	#J		22		150m	6.0u	6.0	1.0m	22					F		
72	2N197	100m	700k	1.5m	#	30		6.0	30m	5.0uØ	5.0	1.0m	50				40p			
73	2N196	100m	800k	1.5m	#	30		6.0	30m	5.0uØ	5.0	1.0m	65				40p			
74	TR64	100m	.80M	1.7m	#J	15			150m	6.0u	6.0	1.0m	45					F		
75#	GT12	100m	.85M		ØS	9.0			10m	5.0u	4.5	1.0m	60					A		
76	2N195	100m	1.0M	1.5m	Ø	15		6.0	30m	3.0uØ	5.0	1.0m	180				40p			
77	2N200	100m	1.0M	1.5m	#	36		12	100m	4.0uØ	5.0	1.0m	45				40p			
78#	2SB110	100m	1.0M	1.4m	ØJ	25		10	50m	10uØ	6.0Ø	1.0m	30	50ub	30	2.5	15p	A	TO1	
79#	2SB111	100m	1.0M	1.4m	ØJ	25		10	50m	10uØ	6.0Ø	1.0m	45	50ub	30	2.5	15p	A	TO1	
80#	2SB112	100m	1.0M	1.4m	ØJ	25		10	50m	10uØ	6.0Ø	1.0m	60	50ub	30	2.5	15p	A	TO1	
81#	2SB113	100m	1.0M	1.4m	ØJ	25		10	50m	10uØ	6.0Ø	1.0m	80	50ub	30	2.5	15p	A	TO1	
82	CK754	100m	1.2M	1.7m	#J		10	20	100m		6.0	1.0m	300					A		
83	TR65	100m	1.2M	1.7m	#J	12			150m	6.0u	6.0	1.0m	90					F		
84#	2SB114	100m	1.5M	1.4m	ØJ	25		10	50m	10uØ	1.0Ø	20mØ	65 †				15p	A	TO1	
85#	2SB115	100m	1.5M	1.4m	ØJ	25		10	50m	10uØ	1.0Ø	20mØ	85 †				15p	A	TO1	
86#	2SB116	100m	1.5M	1.4m	ØJ	25		10	50m	10uØ	1.0Ø	20mØ	110 †				15p	A	TO1	
87#	2SB117	100m	1.5M	1.4m	ØJ	25		10	50m	10uØ	1.0Ø	20mØ	140 †				15p	A	TO1	
88#	GT13	100m	1.7M		ØS	9.0			10m	5.0u	4.5	1.0m	100					A		
89	GT759	100m	1.7M	2.0m	#S	20		15	200m	25u	4.5Ø	1.0mØ	25				14p	A		
90	2N30	100m	2.0M		*A	30		50	7.0m		25Ø	50mØ	17 §					PC		
91	AC107M	100m	2.0M§				15		5.0m		5.0Ø	.30mØ	60					Ø	TO5	
92#	ASY61/TK33	100m	2.0M§Δ			20		.60		8.0u			25 †Δ				30p	D		
93#	TK21A	100m	2.0M	4.0m	*J	30		30			30	.50mØ	23					AB		
94#	TK26A	100m	2.0M	4.0m	*J	30		30			.50Ø	20m	23					AB		
95#	GT40	100m	2.5M	2.0m	ØJ	15		15	100m	15u	4.5	1.0m	30			3.0	15p	AΔ	R12	
96#	GT44	100m	2.5M	2.0m	ØJ	25		15	100m	15u	4.5	1.0m	30			3.0	15p	AΔ	R12	
97#	TK24A	100m	2.5M	4.0m	*J	30		30			.50Ø	40m	32					AB		
98#	TK27A	100m	2.5M	4.0m	*J	30		30			.50Ø	40m	32					AB		
99	2N31	100m	3.0M		*A	30		50	7.0m	800uØ								PCΔ		
100#	2SB443	100m	3.0M			18	18 Ø	12	10m	10u	6.0Ø	1.0mØ	150	53u	3.9k	7.4		A	TO1	
101#	2SB444	100m	3.0M			18	18 Ø	12	10m	7.0uØ	6.0Ø	1.0mØ	160	59u	3.9k	7.7		A	TO1	
102	GT153	100m	3.0M	2.0m	#S	30		10	200m	50u	2.0Ø	1.0mØ	20 †	700nb	30	6.0	15p	AΔ		
103#	OC3H	100m	3.0MΔ	1.7m	#S	15	12	10		2.0uØ	6.0	1.0m	50 Δ				14p	A	TO9	
104#	OC4H	100m	3.0MΔ	1.7m	#S	15	12	10		2.0uØ	6.0	1.0m	80 Δ				14p	A	TO9	
105	TR759	100m	3.0M		ØJ	15			100m				25					A		
106#	GET883	100m	3.5M	1.7m	#J	15		10	10m	5.0u	6.0	1.0m	50					At	TO5	
107#	GT41	100m	4.0M	2.0m	ØJ	15		15	100m	15u	4.5	1.0m	30	20u	900	3.0	15p	AΔ	R12	
108#	GT45	100m	4.0M	2.0m	ØJ	25		15	100m	15u	4.5	1.0m	30	20u	900	3.0	15p	AΔ	R12	
109	TR792	100m	4.8M		#S	20			100m	6.0uØ	5.0Ø	5.0mØ	100					A		
110	2N53	100m	5.0M		*A	50		50	8.0m				.67					PCΔ		

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1	4JD1A73	100m	5.0M		#S		2.0	5.0	50m	6.0uØ	5.0	1.0m	32				12			
2	GT760	100m	5.0M	2.0m	#S	15		15		5.0u	4.5Ø	1.0mØ	40				14p	A		
3#	GT42	100m	6.0M	2.0m	ØJ	15		15	100m	15u	4.5	1.0m	60	25u	1.6k	3.0	15p	AΔ	R12	
4#	GT46	100m	6.0M	2.0m	ØJ	25		15	100m	15u	4.5	1.0m	60	25u	1.6k	3.0	15p	AΔ	R12	
5#	GT100	100m	6.0M	2.0m	ØJ	9.0		9.0	100m		4.5	1.0m	60	25u	1.6k	3.0		AΔ		
6#	TK20A	100m	6.3M	4.0m	*J	30		30			4.5Ø	1.0m	43					A		
7#	GET884	100m	7.5M	1.7m	#J	15		10	10m	5.0u	6.0	1.0m	70					At	TO5	
8	2N1684	100m	8.0M	1.3m	#	25		12	100m	20u							15p	A	u1	
9	2N1782	100m	8.0M	1.3m	#	30		20	100m		.35Ø	200m	30 †				15p	AΔ	u1	
10#	OC3K	100m	8.0MΔ	1.7m	#S	15	10	10		2.0uØ	6.0	1.0m	50 Δ				14p	A	TO9	
11#	OC4K	100m	8.0MΔ	1.7m	#S	15	10	10		2.0uØ	6.0	1.0m	80 Δ				14p	A	TO9	
12#	OC5K	100m	8.0MΔ	1.7m	#S	15	10	10		2.0uØ	6.0	1.0m	120 Δ				14p	A	TO9	
13#	GT43	100m	9.0M	2.0m	ØJ	15		15	100m	15u	4.5	1.0m	100	30u	2.7k	3.0	15p	AΔ	R12	
14#	GT47	100m	9.0M	2.0m	ØJ	25		15	100m	15u	4.5	1.0m	100	30u	2.7k	3.0	15p	AΔ	R12	
15	2N487	100m	10Mt Δ	1.7m	#S	18		3.0	25m	15uØ	6.0Ø	1.0mØ	20 tΔ	100u	2.8k		14pØ			
16	GT761	100m	10.M	2.0m	#S	15				5.0u	4.5Ø	1.0mØ	70				14p	A		
17#	TK25A	100m	10.M	4.0m	*J	20		20			4.5Ø	1.0m	63				17p	ABΔ		
18#	TK34C	100m	10M	2.0m	ØJ	20	6.0	15	250m	10uØ	0.0	100mØ	60 †					AΔ	R47a	
19	2N1784	100m	12.M	1.3m	#	30		12	100m	25u	.35Ø	10m	40 †				15p	AΔ	u1	
20	2N624	100m	13.M	1.3m	#J	30			10m	30u	10Ø	2.0mØ	20 Δ				3pØ	Dt	R4	
21#	OC3N	100m	15.MΔ	1.7m	#S	15	8.0	10		2.0uØ	6.0	1.0m	50 Δ				14p	A	TO9	
22#	OC4N	100m	15.MΔ	1.7m	#S	15	8.0	10		2.0uØ	6.0	1.0m	80 Δ				14p	A	TO9	
23#	OC5N	100m	15.MΔ	1.7m	#S	15	8.0	10		2.0uØ	6.0	1.0m	120 Δ				14p	A	TO9	
24	GT762	100m	20.M	2.0m	#S	15				5.0u	4.5Ø	1.0mØ	120				14p	A		
25#	OC4-O	100m	21.MΔ	1.7m	#S	15	6.0	10		2.0uØ	6.0	1.0m	80 Δ				14p	A	TO9	
26#	OC5-O	100m	21.MΔ	1.7m	#S	15	6.0	10		2.0uØ	6.0	1.0m	120 Δ				14p	A	TO9	
27#	OC40	100m	21.MΔ	1.7m	#S	15	6.0	10		2.0uØ	6.0	1.0m	80 Δ				14p	A	TO9	
28#	OC50	100m	21.MΔ	1.7m	#S	15	6.0	10		2.0uØ	6.0	1.0m	120 Δ				14p	A	TO9	
29	GT764	100m	25.M	2.0m	#S	20			200m	5.0uØ	4.5	1.0m	200					A		
30	GT763	100m	30.M	2.0m	#S	15				5.0u	4.5Ø	1.0mØ	200				14p	A		
31#	NKT618	100m	30.MΔ		ØJ	50	50 Ø	1.0	30m	10uØ	4.5Ø	1.0mØ	35 Δ				2.0p	ME	TO1	
32	2N1517A	100m	70M§	1.6m	Ø	40	20	1.0	10m	8.0uØ	6.0	1.0m	150	350u	43	140	2.5p	AD	TO7	
33	PADT29	100m	70.M§	588u	#J	25	15		10m	8.0uØ	6.0Ø	1.0m	150					ADØ	TO7	
34	2N2093	100m	75.M§	1.7m	#J	25	25 §	2.0	10m	50u	6.0Ø	1.0m	150	1.0u	4.0k	160	4.0p	ADØ	TO7	
35#	2G417	100m	90.M§	1.7m	#J	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0mØ	50 Δ				3.5pØ	ADt	TO18	
36#	2G413	100m	100M§	1.5m	#J	40		1.0	25m	50u	6.0	1.0m	100				2.5p	AD	TO18	
37	2N1699	100m	100M	1.3m		40					12Ø	1.5mØ	100							
38#	2G414	100m	120M§	1.7m	#J	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0mØ	50 Δ				2.3p	ADt	TO18	
39#	2G415	100m	120M§	1.7m	#J	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0mØ	50 Δ				2.3p	ADt	TO18	
40#	2G416	100m	120M§	1.7m	#J	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0mØ	50 Δ				3.5pØ	ADt	TO18	
41#	2SA362	100m	150M§	1.7m	#J	30	25 Ø	.50	30m	30u	6.0Ø	5.0m	70				3.0p	ME	TO44	
42#	2SA247†	100m	200M	1.7m	#J	10		.50	30m	5.0u	.30	20m	125 †				5.5p		TO44	
43	PADT30	100m	220M	1.7m	#	25		1.0	10m	10u	12	1.0m	120							
44	40268	100m	250M§Δ	1.3m	#J	25	15 Ø	1.0	100m	10uØ	10Ø	1.0mØ	20 tΔ		250		3.5pØ	DM	TO18	
45	TI445	100m	480M			25			100m	5.0uØ	10Ø	10mØ	10 tΔ					MEΔ	TO50	
46	2N694	100m	500M	1.3m	#S	30		1.0	50m		6.0Ø	2.0mØ	20	15ub	19	57	1.5p	D		
47	M2	100m	550M*	5.0m	ØJ	25		1.0	12m	20uØ			20				1.4p	ME	R23	
48	GA53194	100m	600M	1.0m	#J	30			30m	5.0uØ	9.0	10mØ	19	7.5ub	6.0	8.0	2.5p	D		
49	TI444	100m	600M			30			100m	5.0uØ	10Ø	10mØ	10 tΔ					MEΔ	TO50	
50	M1	100m	700M*	5.0m	ØJ	25		1.0	12m	20uØ			20				1.4p	ME	R23	
51	TI443	100m	750M			35			100m	5.0uØ	10Ø	10mØ	10 tΔ	40ub	3.6	200m		MEΔ	TO50	
52#	2SA310	106m	650M§	3.3m	ØJ	32		.30	25m	13uØ	12	1.0m	250				700f	AD	TO7	
53#	ASY14-1	110m*		2.5m	ØJ	80	40	10	250m		.50Ø	250mØ	30 †					A	R43	
54#	ASY14-2	110m*		2.5m	ØJ	80	40	10	250m		.50Ø	250mØ	40 †					A	R43	
55#	ASY14-3	110m*		2.5m	ØJ	80	40	10	250m		.50Ø	250mØ	70 †					A	R43	
56#	OC307-1	110m*		2.5m	ØJ	32	18	10	250m		.50Ø	250mØ	30 †					A	R43	
57#	OC307-2	110m*		2.5m	ØJ	32	18	10	250m		.50Ø	250mØ	40 †					A	R43	
58#	OC307-3	110m*		2.5m	ØJ	32	18	10	250m		.50Ø	250mØ	70 †					A	R43	
59#	OC309-1	110m*		2.5m	ØJ	60	30	10	250m		.50Ø	250mØ	30 †					A	R43	
60#	OC309-2	110m*		2.5m	ØJ	60	30	10	250m		.50Ø	250mØ	40 †					A	R43	
61#	OC309-3	110m*		2.5m	ØJ	60	30	10	250m		.50Ø	250mØ	70 †					A	R43	
62#	OC303	110m	700k	2.2m	ØJ	32	15	10	50m	10uØ	5.0Ø	1.0m	26	18u	1.0k	3.0		A	R41	
63#	OC304/1	110m	800k	2.2m	ØJ	32	15	10	50m	10uØ	5.0Ø	1.0m	40	22u	1.2k	4.0		A	R41	
64#	OC306/1	110m	800k	2.2m	ØJ	32	15	10	50m	10uØ	5.0Ø	1.0m	40	22u	1.2k	4.0		AØ	R41	
65#	OC304/2	110m	900k	2.2m	ØJ	32	15	10	50m	10uØ	5.0Ø	1.0m	65	35u	1.6k	6.5		A	R41	
66#	OC306/2	110m	900k	2.2m	ØJ	32	15	10	50m	10uØ	5.0Ø	1.0m	65	35u	1.6k	6.5		AØ	R41	
67#	OC304/3	110m	1.1M	2.2m	ØJ	32	15	10	50m	10uØ	5.0Ø	1.0m	100	45u	2.8k	8.5		A	R41	
68#	OC306/3	110m	1.1M	2.2m	ØJ	32	15	10	50m	10uØ	5.0Ø	1.0m	100	45u	2.8k	8.5		AØ	R41	
69#	OC305/1	110m	1.5M	2.2m	ØJ	32	8.0	10	50m	10uØ	5.0Ø	1.0m	150	60u	4.5k	13		A	R41	
70#	OC305/2	110m	2.1M	2.2m	ØJ	32	8.0	10	50m	10uØ	5.0Ø	1.0m	230	90u	6.8k	16		A	R41	
71	A1377	110m	300M§	2.5m	#J	35	20 #	.50	10m	10uØ	6.0	1.0m	70				2.0p	ADØ	TO12	
72	2N2873	115m	375M§	1.5m	#J	35	12	.30	10m	12uØ	6.0Ø	1.0mØ	125				1.3p	DMØ	R103	
73	2N22	120m			*S	100	100	40	20m	2mØ								PCΔ		
74	2N24	120m			*S	20	30	5.0	25m	1mØ								PC		
75	2N52	120m			*A	50		50	8.0m									PC		
76	2N247/33	120m		1.7m	#J	40	40	.50	10m	12u	9.0Ø	1.0mØ	60				3pØ	D	TO33	
77	2N1003	120m		1.7m	#J	35	20	.50		15uØ	9.0Ø	1.0m	10 Δ				5.0			
78	2N1004	120m		1.7m	#J	35	20	.50		15uØ	9.0Ø	1.0m	10 Δ				5.0			
79	2N2208	120m		1.6m	#S	40	10	.50	10m	50u	12Ø	1.5m	30 Δ		300		3pØ	†	TO44	
80#	OC3L	120m		2.0m	#J	30	30		120m	10uØ	6.0	1.0m	70					A	TO9	
81#	OC3LP	120m		2.0m	#J	30	30		120m	10uØ	.50	100m	70					A	TO9	
82#	OC3LR	120m		2.0m	#J	30	30		120m	10uØ	6.0	1.0m	70					AØ	TO9	
83#	OC4L	120m		2.0m	#J	30	30		120m	10uØ	6.0	1.0m	150					A	TO9	
84#	OC4LP	120m		2.0m	#J	30	30		120m	10uØ	.50	100m	150					A	TO9	
85#	OC4LR	120m		2.0m	#J	30	30		120m	10uØ	6.0	1.0m	150					AØ	TO9	
86#	OC5L	120m		2.0m	#J	30	30		120m	10uØ	6.0	1.0m	150					At	TO9	
87#	OC5LP	120m		2.0m	#J	30	30		120m	10uØ	.50	100m	150					At	TO9	
88#	OC5LR	120m		2.0m	#J	30	30		120m	10uØ	6.0	1.0m	150					AØ	TO9	
89#	2V633	120m	.80M	2.5m		30			200m	10u	6.0	10m	40					PA		
90#	2V363	120m	1.0M	2.5m		25			100m	15u	6.0	1.0m	50					PA		
91#	2V632	120m	1.0M	2.5m		25			200m	10u	6.0	10m	80	18u	1.4k	4.3		PA		
92#	CP398	120m	1.0M		ØJ	105		50				5.0m	30 tΔ					AΔ	TO5	
93#	2V631	120m	1.2M	2.5m		25			200m	10u	6.0	10m	120					PA		
94	GA53213	120m	1.4M	2.0m	#J	30		30	50m	15u	5.0	1.0m	24				18p	A		
95#	2V362	120m	1.5M	2.5m		25			100m	15u	6.0	1.0m	120	18u	1.4k	4.3		PA		
96	2N21	120m	2.0M		#S	100		100	40m	1.1mØ	10	1.0m						PC		
97	2N21A	120m	2.0M		#A	100		99	40m									PC		
98#	AT/AF1	120m	2.0M	2.2m	#	16		12	100m	10u	6.0	1.0m	60				15p	A	TO1	
99#	AT/AF2	120m	2.0M	2.2m	#	16		12	100m	10u	6.0	1.0m	70				15p	A	TO1	
100#	XA103	120m	2.0MΔ	3.0m	*J	12		1.0		5.0u	5.0	1.0mØ	35				14p	A	RO35	
101	GA53104	120m	2.9M	2.0m	#J	10		20	50m				45				18p	AΔ		
102	GA52829	120m	3.3M	2.0m	#J	30		20	50m		5.0	1.0m	50				18p	AΔ		
103	GA53149	120m	3.3M	2.0m	#J	35		35	50m	10u	5.0	1.0m	49				18p	AΔ		
104#	2SA211†	120m	4.0M	2.0m	#J	18		10	100m	20u	.30	100m	30 Δt				20p		TO5	
105	SYL1697	120m	4.0MΔ	2.0m	#S	18		8.0	100m	5.0u	.30	1.0m	30 †				20p	AΔ	TO5	
106#	XA104	120m	4.0MΔ	3.0m	*J	12		1.0		5.0u	5.0	1.0mØ	60				14p	A	RO35	
107#	XA101	120m	5.0M	3.0m	*J	20		12		5.0u	5.0	1.0mØ	35				14p	AΔ	RO35	
108#	XA111	120m	5.0M	3.0m	*J	20		12		5.0u	5.0	1.0mØ	35				14p	AΔ	RO7	
109#	AT/RF1	120m	7.0M	2.2m	#	16		12	100m	10u	6.0	1.0m	90				12p	A	TO1	
110	SYL1690	120m	7.0MΔ	2.0m	#J	25		15	200m	30u	.20Ø	20mØ	110 †					AΔ	TO5	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	SYL1717	120m	7.0MΔ		#J	25		15	200m	20u			100 †				20p	AΔ	TO5	
2	GA52837	120m	7.5M		#S	100		100	40m	2.2mØ								PC		
3#	XA102	120m	8.0M	3.0m	*J	20		12		5.0u	5.0	1.0mØ	60				14p	AΔ	RO35	
4#	XA112	120m	8.0M	3.0m	*J	20		12		5.0u	5.0	1.0mØ	60				14p	AΔ	RO7	
5#	AT/S13	120m	9.0M		#	16		12	100m	5.0u		15m	100 †				12p	A	TO1	
6	2N1670	120m	10.M	2.0m	#S	100		1.5		7.0u	.50Ø	10m	15				5.0p	DΔ	TO9	
7	2N602A	120m	12M§Δ			35	25	1.5		5.0uØ	1.0Ø	500uΔ	80 †☑	2.0u☑b			7.0p☑	DΔ	TO9	A
8	2N603A	120m	12M§Δ			30	20	2.0		5.0uØ	1.0Ø	500uΔ	100 †☑	2.0u☑b			5.0p☑	DΔ	TO9	
9	2N604A	120m	12M§Δ			30	20	2.5		5.0uØ	1.0Ø	500uΔ	120 †☑	2.0u☑b			5.0p☑	DΔ	TO9	
10	TR269	120m	12.M		ØA	25		12	100m	20u	.30	20mØ	40				20p	AΔ		
11	2N605	120m	15M	2.0m	#S	15		.50		25u	7.5Ø	1.0mØ	15	500nb	30	3.0	3.0p	D		
12#	AT/RF2	120m	15.M	2.2m	#	16		12	100m	10u	6.0	1.0m	120				12p	A	TO1	
13	SYL1684	120m	17MΔ		#S	40		1.0		50u			50 †	2.0ub				DΔ		
14	2N602	120m	20M§	2.0m	#S	20	20	1.0		8.0uØ	1.0Ø	500uΔ	20 †Δ	500nb	33	3.0	4.0p	DΔ	TO9	A
15	2N606	120m	20M	2.0m	#S	15		.50		25u	7.5Ø	1.0mØ	25	500nb	30	3.0	3.0p	D		
16	*2N1065†*	120m	20MΔ	2.0m	#S	40	20	1.0		5.0u	1.0Ø	500uΔ	50 †	500nb	33	3.0	4.0p	D	TO9	
17	2N607	120m	25M	2.0m	#S	15		.50		25u	7.5Ø	1.0mØ	40	500nb	30	3.5	3.0p	D		
18	2N1678	120m	25MΔ	2.0m		60	60 Ø	4.0		25u	5.0Ø	1.0m	25	20ub			5.0p	DΔ	TO9	
19	2N643†	120m	30M§	3.0m	ØA	30	29 Ø	2.0	100m	10uØ	7.0Ø	5.0mØ	45 †				2.0p	D	TO9	A
20#	2SA75	120m	30M	2.4m	ØJ	20		.50	50m	50u	3.0	20m	70				6.0p☑	D	TO44	G
21#	XA141	120m	30.M§			30		2.0	100m	10uØ	7.0Ø	5.0mØ	45 †				2.0p	DΔ	TO33	
22	2N1524/33	120m	33.M	2.0m	#A	24		.50	10m	16u	12Ø	1.0m	60				2.0p	D	TO33	
23	2N608	120m	35M	2.0m	#S	15		.50		25u	7.5Ø	1.0mØ	75	500nb	30	4.0	3.0p	D		
24	2N603	120m	40M§	1.6m	#S	30	20	1.0		8.0uØ	1.0Ø	500uΔ	30 †Δ	400nb	30	4.0	3.0p	DΔ	TO9	A
25	*2N1633*	120m	40.M	2.0m	#A	34		1.0	10m	16uØ	12Ø	1.0m	75				2.0p	D	TO9	
26	2N1634	120m	40.M	2.0m	#A	34		1.0	10m	16uØ	12Ø	1.0m	75				2.0p	D	TO9	
27	2N1638/33	120m	40.M	2.0m	#A	34		1.0	10m	7.0uØ	12Ø	1.0m	75				2.0p	D	TO33	
28#	2SA370	120m	40.M	2.0m	#J	75		1.0	50m	12uØ	9.0Ø	1.0m	70				2.5p	D	X35	
29	2N1631	120m	45.M	2.0m	#A	34		1.0	10m	16uØ	12Ø	1.0m	80				2.0p	D	TO40	
30	2N1635	120m	45.M	2.0m	#A	34		1.0	10m	16uØ	12Ø	1.0m	75				2.0p	D	TO9	
31	2N1636	120m	45.M	2.0m	#A	34		1.0	10m	16uØ	12Ø	1.0m	75				2.0p	D	TO9	
32	2N1637/33	120m	45.M	2.0m	#A	34		1.5	10m	5.0uØ	12Ø	1.0m	80				2.0p	D	TO33	
33	2N1639/33	120m	45.M	2.0m	#A	34		1.0	10m	7.0uØ	12Ø	1.0m	75				2.0p	D	TO33	
34	2N644†	120m	50M§	3.0m	ØA	30	29 Ø	2.0	100m	10uØ	7.0Ø	5.0mØ	45 †				2.0p	D	TO9	A
35#	XA142	120m	50.M§			30		2.0	100m	10uØ	7.0Ø	5.0mØ	45 †				2.0p	DΔ	TO33	
36	2N604†	120m	60M§	2.0m	#S	30	20	2.0		8.0uØ	1.0Ø	500uΔ	40 †Δ	250nb	27	3.0	3.0p	DΔ	TO9	A
37	2N645†	120m	75M§	3.0m	ØA	30	29 Ø	2.0	100m	10uØ	7.0Ø	5.0mØ	45 †				2.0p	D	TO9	
38#	XA143	120m	75.M§			30		2.0	100m	10uØ	7.0Ø	5.0mØ	45 †				2.0p	DΔ	TO33	
39#	2SA280	120m*	80M	4.0m	ØJ	30		.50	30m	6.0uØ	2.0	10m	125 †				1.5p	AD	TO7	
40#	2SA281	120m*	80M	4.0m	ØJ	50		.50	30m	6.0uØ	2.0	10m	125 †				1.5p	AD	TO7	
41	A1383	120m	80.M§	2.2m	#J	32	32	1.2	30m	3.0uØ	10	1.0m	20 †Δ					PDØ	TO12	
42	A1384	120m	80.M§	2.2m	#J	32	32	1.2	30m	3.0uØ	6.0	1.0m	20 †Δ					PDØ	TO39	
43	2N384/33	120m	100M		#S	40	40	.50	10m	50u	12Ø	1.5mØ	60		400		3p☑	D	TO33	
44	2N1285	120m	100M		#S	40		2.5	10m	12uØ	12Ø	1.5mØ	100 ☑				3p☑	D	TO33	
45#	2SA301	120m*	100M	4.0m	ØJ	30		.50	30m	6.0uØ	1.0	10m	125 †					AD	TO7	
46	40005	120m	100M	1.6m	ØA	40	40 §	.50	10m	12uØ	12Ø	1.5mØ	90				2.0p	D	TO44	
47#	SFT155	120m	100M	2.0m	#J	35		.50	10m	50u	12Ø	1.5mØ	60				1.8p	D		
48#	XA131	120m	100M	1.6m	#A	40		.50	10m	12uØ	12Ø	1.5mØ	60				2.0p	DΔ	TO33	
49	40006	120m	120M	1.6m	ØA	40	40 §	.50	10m	12uØ	12Ø	1.5mØ	90				2.0p	D	TO44	
50#	AF182	120m	120M§Δ	2.0m	#J	15		.50	10m	15u	12Ø	5.0mØ	70 Δ				2.0p	D	TO5	
51	GT14	125m		2.0m	#S	25		10	100m	25u	.50Ø	1.0m	28	500nb	40	3.0	35p	A		
52	TR11	125m			#S	100			100m	450u	4.5	1.0m	18					A		
53	TR15	125m			#S	25			100m	6.0uØ	4.5	1.0m	75					A		
54	TR16	125m			#S	25			100m	6.0uØ	4.5	1.0m	150					A		
55	TR17	125m			#S	25			100m	6.0uØ	4.5	1.0m	150					A		
56	TR21	125m			#J	12			100m	6.0uØ			20					&		
57	TRM15	125m			#S	25			100m	6.0uØ	4.5	1.0m	75					A		
58	TRM16	125m			#S	25			100m	6.0uØ	4.5	1.0m	150					A		
59	TRM17	125m			#S	25			100m	6.0uØ	4.5	1.0m	150							
60	TRM21	125m			#J	12			100m	6.0uØ			20							
61#	2SA173	125m	4.0m	2.5m	ØJ	20		10	50m	8.0u	1.0Ø	10m	60 †				13p	A	TO5	
62#	GTE1	125m	300k	2.5m	ØJ	300m			10m	12u	2.0	3.0mØ	47	80u	800	5.0		A†		
63#	GTE2	125m	300k	2.5m	ØJ	30		10	250m	10u	6.0Ø	10mØ	22					A†		
64#	GTV	125m	300k	2.5m	ØJ	30		1.0	10m	12u	2.0	500uØ	30	23u	2.2k	9.0		A†		
65	2N109/2N217EQ	125m	350k	2.5m	ØJ	32		10	70m	4.5uØ	6.0	10m	70					A		
66	2N217EQ	125m	350k	2.5m	ØJ	32		10	70m	4.5uØ	6.0	10m	70					A		
67#	NKT247	125m	.35M		ØJ	60			250m		1.5	80m	60					A	R65	
68#	GFT31	125m	400k	2.5m	ØJ	15		10		20u	3.0	30m	30					A	TO30	
69#	GFT31/15	125m	400k	2.5m	ØJ	15		10	300m	20u	3.0	30m	30					A	TO30	
70#	GFT31/30	125m	400k	2.5m	ØJ	30		10		20u	3.0	30m	30					AΔ	TO30	
71#	GFT31/60	125m	400k	2.5m	ØJ	60		10		20u	3.0	30m	30					AΔ	TO30	
72#	GFT32	125m	500k	2.5m	ØJ	15		10		20u	3.0	50m	50					A	TO30	
73#	GFT32/15	125m	500k	2.5m	ØJ	15		10	300m	20u	3.0	50m	50					A	R21	
74#	GFT32/30	125m	500k	2.5m	ØJ	30		10		20u	3.0	50m	50					AΔ	R21	
75#	GFT32/60	125m	500k	2.5m	ØJ	60		10		20u	3.0	50m	50					AΔ	R21	
76#	GFT34	125m	600k	2.5m	ØJ	15		10		20u	3.0	75m	75					A	TO30	
77#	GFT34/15	125m	600k	2.5m	ØJ	15		10	300m	20u	3.0	75m	75					A	R21	
78#	GFT34/30	125m	600k	2.5m	ØJ	30		10		20u	3.0	75m	75					AΔ	R21	
79#	GFT34/60	125m	600k	2.5m	ØJ	60		10		20u	3.0	75m	75					AΔ	R21	
80#	V10/15A	125m	600k	4.0m	ØJ	10		10	30m		4.5	1.0m	20	1.3u	45	7.7	35p	A		
81#	2SB161	125m	650k	2.5m	ØJ	30		10	100m	10uØ	1.0Ø	50mØ	50 †				30p	A	TO5	
82#	NKT246	125m	.70M		ØJ	15			75m		6.0	1.0m	75					AØ	R65	
83#	V10/30A	125m	700k	4.0m	ØJ	10		10	30m		4.5	1.0m	40	1.0u	59	9.7	35p	A		
84	OC75N	125m	750k	2.5m	ØJ	30	30		50m	5.0u	2.0Ø	3.0m	90					A	TO1	A
85#	TS13	125m	750k	2.5m	ØJ	30			25m	10u	9.0	1.0m	52	12u	1.8k			A		
86#	TS14	125m	750k	2.5m	ØJ	30			25m	10u	9.0	1.0m	32	12u	1.3k			A		
87#	2SB163	125m	800k	2.5m	ØJ	30		10	100m	10uØ	1.0Ø	50mØ	70 †				30p	A	TO5	
88#	GT1	125m	.80M		ØS	9.0			10m	5.0u	4.5	1.0m	20	18u	1.1k	3.5		A		
89#	GT31	125m	800k	2.5m	ØJ	15		15	100m		4.5	1.0m	20	18u	1.1k	3.5		AΔ	R12	
90#	GT32	125m	900k	2.5m	ØJ	15		15	100m		4.5	1.0m	40	20u	1.8k	4.0		AΔ	R12	
91#	OC307	125m	900k	2.5m	ØJ	32	32 §		250m	15uØ	.70Ø	125mØ	25 †Δ					AΔ	R43	
92#	OC309	125m	900k	2.5m	ØJ	60	60 §		250m	10uØ	.70Ø	125mØ	25 †Δ				1.0p	AΔ	R43	
93#	2SB165	125m	1.0M	2.5m	ØJ	30		10	100m	10uØ	1.0Ø	50mØ	100 †				30p	A	TO5	
94#	GT2	125m	1.0M		ØS	9.0			10m	5.0u	4.5	1.0m	40	20u	1.8k	4.0		A		
95#	GT33	125m	1.0M	2.5m	ØJ	15		15	100m		4.5	1.0m	60	25u	2.5k	5.0		AΔ	R12	
96#	2SB103	125m	1.2M	2.5m	ØJ	30		10	100m	10u	1.0Ø	50mØ	70 †					A	TO5	
97#	V10/50A	125m	1.2M	4.0m	ØJ	10		10	30m		4.5	1.0m	75	770n	65	11	35p	A		
98#	V10/50B	125m	1.2M	2.5m	Ø	10			30m	40u	4.5	1.0m	75							
99#	GT3	125m	1.3M		ØS	9.0			10m	5.0u	4.5	1.0m	60	25u	2.5k	5.0		A		
100#	2SB98	125m	1.5M		ØJ	30			50m	10uØ	6.0Ø	1.0m	120				30p	A	TO5	
101#	2SB99	125m	1.5M		ØJ	30			50m	10uØ	6.0Ø	1.0m	120				30p	A	TO5	
102	TR19	125m	2.0M	2.5m	#J	25				5.0uØ	5.0	1.0m	100				50p	A		
103#	ASZ11	125m	3.0M	2.5m	ØJ	20		20	200m	3.0u	0.0	15m	40 Δ				20p	Δ		
104#	NKT133	125m	3.0M		ØJ	15			25m			1.0mØ	30						TO22	
105#	NKT143	125m	3.0MΔ	2.5m	ØJ	15	15 Ø	12	25m	5.0uØ	4.5Ø	1.0m	50	1.0ub	65	7.0	35p☑	A	TO5	
106#	NKT144	125m	3.0MΔ	2.5m	ØJ	15	15 Ø	12	25m	5.0uØ	4.5Ø	1.0m	50	1.0ub	65	7.0	35p☑	AØ	TO5	
107#	ASZ12	125m	5.5MØ	2.5m	ØJ	20		20	200m	3.0u	0.0	15m	60 Δ				20p	Δ		
108#	2SA26	125m	6.0M		ØJ	20			50m	12uØ	6.0	1.0m	60				15p	A	TO5	
109#	2SA171	125m	8.0M	2.5m	ØJ	20		10	50m	8.0u	1.0Ø	1.0m	60 †				12p	A	TO5	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	NKT132	125m	8.0M		ØJ	15			25m			1.0mØ	40						TO22	
2#	NKT142	125m	8.0MΔ	2.5m	ØJ	15	15 Ø	12	25m	5.0uØ	4.5Ø	1.0m	80	1.0ub	65	7.0	35pØ	A	TO5	
3	TIA03	125m	10.M§	1.7m	#S	25	20	25	150m	5.0u	6.0Ø	1.0mØ	45 Δ					A	TO39	
4	TIA04	125m	10.M§	1.7m	#S	25	20	25	150m	5.0u	6.0Ø	1.0mØ	100 Δ					A	TO39	
5	TIA05	125m	10.M§	1.7m	#S	25	15	20	150m	5.0u	6.0Ø	1.0mØ	30 Δ					A	TO39	
6#	2SA169	125m	15M	2.5m	ØJ	20		10	50m	8.0u	1.0Ø	10m	70 †				11p	A	TO5	
7#	NKT131	125m	15.M		ØJ	15			25m			1.0mØ	50						TO22	
8#	NKT141	125m	15MΔ	2.5m	ØJ	15	15 Ø	12	25m	5.0uØ	4.5Ø	1.0m	150	1.0ub	65	7.0	35pØ	A	TO5	
9#	2SA78	125m	25M	2.5m	ØJ	40		2.0	400m	12u	6.0	1.0m	70					D	TO44	
10#	2SA74	125m	70M	2.5m	ØJ	50		.50	5.0m	50u	6.0	5.0m	70					D	TO44	
11	SYL3613	125m	400M§Δ	1.7m	#S	25	20 Ø	2.0	100m	2.0uØ	6.0Ø	2.0mØ	50 Δ	180uØ	2kØ			ME	RO38	
12	TR761	130m		2.5m	#J	30		20	200m									F		
13	CK870	130m	.50M	2.5m	#J	25		25	150m		6.0	1.0m	12					FB		
14	CK871	130m	.60M	2.5m	#J	20		20	150m		6.0	1.0m	20					FB		
15#	TS9	130m	.60M	3.6m	*J	56		20			.70Ø	10m	70					A		
16#	TS17	130m	.60M	3.7m	*J	30		36			.90Ø	1.0mØ	90	15u				A		
17	2N138A	130m	1.2M	2.5m	#J	12			150m	6.0uØ	6.0	1.0m	140					F		
18#	XA151	130m	5.0M	3.3m	*J	15		12		10u	.25Ø	50mØ	35 †					AΔ	RO7	
19#	XA152	130m	9.0M	3.3m	*J	15		12		10u	.25Ø	50mØ	100 †					AΔ	RO7	
20	TR762	130m	20.M	2.5m	#J	30		20	200m	1.0uØ	6.0	1.0m	75				12p	F		
21#	TK21B	140m	2.0M	4.0m	*J	30		30			30	.50mØ	23					AB		
22#	TK26B	140m	2.0M	4.0m	*J	30		30			.50Ø	20m	23					AB		
23#	2G108	140m	2.5M	3.3m	#J	25	16 §		100m	16uØ	5.0	1.0m	55	600nb	28	5.0	25p	AØ	TO5	
24#	2G201	140m	2.5M	4.0m	#S		13		100m	12u	5.0	1.0m	25 †	1.0ub	30	4.5	25p	A		
25#	2SB48	140m	2.5M		*J	16			100m	16u	1.0Ø	20m	42 †	.60u	28	8.0	25p	A†	TO5	
26#	TK24B	140m	2.5M	4.0m	*J	30		30			.50Ø	40m	32					AB		
27#	TK27B	140m	2.5M	4.0m	*J	30		30			.50Ø	40m	32					AB		
28#	2G109	140m	3.0M	3.3m	#J	25	16 §		100m	16uØ	5.0	1.0m	100	500nb	28	5.0	25p	AØ	TO5	
29#	2G202	140m	3.0M	4.0m	#S		13		100m	12u	5.0	1.0m	40 †	800nb	29	5.0	25p	A		
30#	2SB49	140m	3.0M		*J	16			100m	16u	1.0Ø	20m	83 †	.60u	28	8.0	25p	A†	TO5	
31#	2SB50	140m	3.5M		*J	16			100m	16u	1.0Ø	20m	131 †	.60u	28	8.0	25p	A†	TO5	
32#	TK20B	140m	6.3M	4.0m	*J	30		30			4.5Ø	1.0m	43				17p	AB		
33#	TK25B	140m	10.M	4.0m	*J	20		20			4.5Ø	1.0m	63				17p	AB		
34	2N109/5	150m			ØA	25		12	70m	14u	1.0Ø	50mØ	75					AΔ	TO5	
35	2N725	150m				15			50m				20 †Δ					ME	TO18	
36	2N781†	150m		2.0m	#J	15	15 Ø	2.5	200m	3.0uØ	.22Ø	10mØ	25 †Δ						TO18	AØ
37	2N1646	150m			#J	15	12 Ø	2.0	50m	100u	.40Ø	10mØ	20 Δ†					ME	TO18	
38	2N1853/18	150m		2.5m	#J	18		2.0	100m	4.2u	.40Ø	6.0mØ	30 †Δ						TO18	
39	2N1960	150m		2.0m	#J	15	15	2.5	200m	100u	.22Ø	10mØ	25 †Δ					EΔ	u1	
40	2N1960/46†	150m		2.0m	#J	15	15	2.5	200m	100u	.22Ø	10mØ	25 †Δ					EΔ	TO46	
41	2N1961†	150m		2.0m	#J	12	12 Ø	1.0	200m	3.0uØ	.25Ø	10mØ	20 †Δ						TO46	AØ
42	2N1961/46†	150m		2.0m	#J	12	12	1.0	200m	100u	.25Ø	10mØ	20 †Δ					EΔ	TO46	
43	2N2022	150m		2.0m	#J	15		3.5	50m	3.0u	.50	10m	35				8.0p	Δ	TO18	
44	2N2587	150m		2.0m	#S	30	15	.70	100m	5.0uØ	5.0Ø	8.0mØ	15 †Δ	20u	10	30	3.0p	Ø	TO18	
45	2N2860	150m		2.0m	#J	18	7.0	2.0	150m		.40Ø	40mØ	40 †Δ				4.0pØ	Δ	TO18	AØ
46#	2SB76	150m			#J	12		2.5	70m	14u	6.0Ø	1.0m	55	21.u	1.9k	3.0		A	TO1	
47#	2SB78	150m			#J	12		2.5	70m	14u	1.5Ø	50m	70 †					A	TO1	
48#	2SB153	150m			#J	12		2.5	70m	14u	3.0Ø	1.0m	70	35u	2.2k	5.0		A		
49#	2SB154	150m			#J	12		2.5	70m	14u	1.5Ø	50m	70 †					A		
50	CQ1	150m			*A	40			10m	20uØ			9.0							
51	GT34HV	150m		2.0m	#S	50		10		25u	5.0Ø	1.0m	18	500nb	40	3.0	35p	A		
52	GT75	150m		2.0m	#S	25		10		25u	5.0Ø	1.0mØ	150	500nb	40	8.0	35p	A	TO5	
53	GT2694	150m		2.5m	#J	25	15	10		25u	5.0Ø	1.0m	80	5.0ub			15p	FA	TO5	
54	GT2696	150m		2.5m	#J	25	15	10		25u	5.0Ø	1.0m	70	5.0ub			15p	FA	TO5	
55	GT2883	150m		2.5m	#J	9.0	6.0 Ø	9.0		50u	6.0Ø	1.0m	50				20p	FA	TO5	
56	GT2885	150m		2.5m	#J	9.0	6.0 Ø	7.0		50u	6.0Ø	1.0m	200				20p	FA	TO5	
57	GT2887	150m		2.5m	#J	9.0	6.0 Ø	7.0		50u	6.0Ø	1.0m	250				20p	FA	TO5	
58#	MDS37†	150m			#S	15	15 Ø	1.5		5.0uØ	.30Ø	40mØ	20 †Δ					MDΔ	TO18	Ø
59	SYL2189	150m			#J	12		1.0	50m	3.0uØ	.50Ø	10mØ	20 Δ					ME	u1	
60	TI376	150m				20			150m	15u	1.0Ø	50mØ	105 †						R44	
61	TI377	150m				20			150m	20u	1.0Ø	50mØ	53 †						R44	
62#	TP1	150m			ØS	30			30m	10uØ		.05m						PC		
63	TR10	150m			#J	50			100m	25u	5.0	1.0m	18					A		
64	TR81	150m		2.8m	#J	25				20u	4.5	1.0m	200					A		
65	USAF505ES105	150m		2.0m	#J	15	6.0	5.0	100m	10u	1.0Ø	400uΔ	25 #†Δ					DΔ	R99	
66	USAF512ES040P																			
		150m		2.0m	#S	40	16	5.0	100m	10uØ	1.0Ø	400uΔ	25 †Δ					DEΔ	R99	
67#	XB102	150m		3.0m	*J	35		12		10u	5.0	1.0mØ	30	13.u	1.0k	2.0		AΔ	RO35	
68#	XB103	150m		3.0m	ØJ	35		12		10u	5.0	1.0mØ	66	21u	2.2k	4.6		AΔ	R35	
69#	XB104	150m		3.0m	ØJ	20		12		10u	5.0	1.0mØ	30		1.0k			AΔ	R35	
70#	XB112	150m		3.0m	*J	35		12		10u	5.0	1.0mØ	30	13.u	1.0k	2.0		AΔ	RO7	
71#	XB113	150m		3.0m	ØJ	35		12		10u	5.0	1.0mØ	66	21u	2.2k	4.6		AΔ	R7	
72	2N34/5	150m	400k	3.0m	ØJ	40			100m	50u	6.0Ø	1.0mØ	75	30u	2.5k	6.0		A	TO5	
73	2N462	150m	500kΔ	3.3m	ØJ	40		40	200m	35u	.50Ø	200mØ	45 Δ					AΔ	TO25	
74	2N1009	150m	.50M		#A		25		20m	800u	10Ø	10mØ	40 Δ					A		
75#	ASY51	150m	500kΔ	3.0m	ØJ	60	20				0.0	10mØ	30 Δ					Δ	R47	
76	T1796	150m	.50MΔ	2.5m	#J	35		35	200m	35u	.50Ø	200m	45 †						TO9	
77#	TK44C	150m	500kΔ	3.3m	Ø	60		40			.30Ø	10mØ	30 †					A	R47	
78#	TK48C	150m	500kΔ	3.3m	ØJ	60	20	40		1.7u*	.30Ø	80mØ	20 †Δ					A	R47	
79#	2S34	150m	.60M		#S	20			150m	15u			70							
80	GT87	150m	700k	2.0m	#S	25		10		25u	5.0Ø	1.0m	28	500nb	40	4.0	35p	AΔ		
81	TR104	150m	700k	2.5m	ØA	30			50m	10uØ	6.0	1.0mØ	44				40p	A		
82	TR215	150m	700k	2.5m	ØA	30			50m	10uØ	6.0	1.0mØ	44				40p	A		
83#	2SB43A	150m	1.0M	3.0m	ØJ	45	45 §	12	150m	14uØ	1.0Ø	50mØ	70 †				35p	A	TO1	A
84#	2SB94	150m	1.0M	3.0m	ØJ	25		12	50m	14u	6.0	1.0m	150	200nb	30	2.5		A	TO1	
85#	2SB315	150m	1.0M	2.5m	#J	16	16 Ø	6.0	300m	14uØ	3.0Ø	1.0mØ	50	20u	1.1k	1.5		A	TO1	
86#	2SB316	150m	1.0M	2.5m	#J	16	16 Ø	6.0	300m	14uØ	1.0Ø	150mØ	60 †					A	TO1	
87	4JD1A17	150m	1.0M	2.5m	#S	45			50m	8.0u	5.0	1.0m	40				40p	F		
88	GT83	150m	1.0M	2.0m	#S	25		10		25u	5.0Ø	1.0m	42	500nb	40	4.0	35p	AΔ		
89	TR43A	150m	1.0M	2.0m	#	45		15	50m	5.0u	5.0	1.0m	43				40p	F		
90	TS605	150m	1.0MΔ		#J	12	9.0 §	5.0	400m	10uØ	1.0Ø	.25m	15 †Δ					A	TO9	
91	TS606	150m	1.0MΔ		#J	20	18 §	5.0	400m	10uØ	1.0Ø	.25m	15 †Δ					A	TO9	
92#	2SB293	150m	1.2M	2.5m	#J	18	13 §		250m	10uØ	1.0Ø	150m	70 †					A	TO1	
93#	2SB294	150m	1.2M	2.5m	#J	18	13 §		250m	10uØ	4.0Ø	1.0m	36	18u	1.0k	2.9		A	TO1	
94	CK751	150m	1.2M	2.5m	#J	12			150m	6.0uØ	6.0	1.0m	140					F		
95	MA894	150m	1.2M	2.5m	#J	30	30 Ø	10	200m	100u	6.0Ø	1.0m	20 Δ				25pØ	A	TO5	
96#	2SB266	150m	1.3M		#J	25			150m	10uØ	6.0Ø	1.0m	67	23u	1.8k	3.7		A	TO1	
97#	2SB267	150m	1.3M		#J	25			150m	10uØ	1.0Ø	150m	70 †					A	TO1	
98#	2SB269	150m	1.3M	2.5m	#J	25			150m	10uØ	6.0Ø	1.0m	67	23u	2.0k	4.0		AØ	TO1	
99#	2SB299	150m	1.3M		#J						1.0Ø	150mØ	65 †					A	TO1	
100#	2G398	150m	1.4M	2.5m	#J	105	60 §	40	200m	30uØ	5.0	1.0m	79	530nb	34	5.0	12p	A	TO5	
101#	GET3	150m	1.5M	5.0m	*S	12			25m	6.0uØ	6.0	1.0m	50				60p	A		
102#	GET4	150m	1.5M	5.0m	*S	30			35m	6.0uØ	12	1.0m	50				40p	A		
103#	GET6	150m	1.5M	5.0m	*S	12			25m	6.0uØ	6.0	1.0m	50				60p	A		
104	GT88	150m	1.5M	2.0m	#S	25		10		25u	5.0Ø	1.0m	80	500nb	40	5.0	35p	AΔ		
105	MA895	150m	1.7M	2.5m	#J	30	30 Ø	10	200m	100u	6.0Ø	1.0m	40 Δ				25pØ	A	TO5	
106#	TP2	150m	2.0M		ØS				30m	10uØ		.05m						PC		
107#	XS104	150m	2.0MΔ	3.0m	ØJ	21		21		5.0u	1.0Ø	100mØ	18 †	22u	600	1.5		ABΔ	R35	
108	MA896	150m	2.2M	2.5m	#J	30	30 Ø	10	200m	100u	6.0Ø	1.0m	90 Δ				25pØ	A	TO5	
109#	2G322	150m	2.5M	3.7m	#J	16	16 §		100m	16u	5.0Ø	1.0m	50		1.4k		27p	AØ	TO5	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	SFT135	150m	2.5M	3.0m	ØJ	35		20	250m	5.0u	1.0Ø	30mØ	30 †				15p	AΔ		
2#	XS101	150m	2.5MΔ	3.0m	ØJ	21		21		5.0u	5.0	1.0mØ	20	22u	600	1.5	10p	ABΔ	R35	
3#	XS121	150m	2.5MΔ	3.0m	ØJ	21		21		5.0u	1.0Ø	100mØ	18 †	22u	600	1.5	10p	ABΔ	TO5	
4	MA897	150m	2.7M	2.5m	#J	30	30 Ø	10	200m	100u	6.0Ø	1.0m	180 Δ				25pØ	A	TO5	
5#	2G308	150m	3.0M	2.3m	#J	15		10	100m	10u	6.0	1.0m	50				12p	AØ	R51	
6	2N1404A	150m	3.0M§Δ	2.5m	#J	25	15	20	300m	5.0uØ	.20Ø	24mØ	24 †Δ				20pØ	Δ	TO5Ø	
7#	AC161	150m	3.0MΔ	2.5m	#J	15		9.0	100m	15u	6.0Ø	1.0mØ	100	60u	2.7k	5.0		AØ	TO1	
8#	SFT106	150m	3.0M	2.5m	#J	18		12	100m	10u	6.0Ø	1.0mØ	28				8.0p	A	RO1	
9	TR526	150m	3.0M	2.5m	#J	45		15	500m	10u	5.0	1.0m	73	420nb	30	6.5	25p	A		
10#	2G323	150m	3.1M	3.7m	#J	16	16 §		100m	16u	5.0Ø	1.0m	70		2.0k		27p	AØ	TO5	
11	TR527	150m	3.3M			45		15	500m	10u	5.0	1.0m	91	370nb	31	8.0	25p	A		
12#	2G324	150m	3.4M	3.7m	#J	16	16 §		100m	16u	5.0Ø	1.0m	88		2.6k		27p	AØ	TO5	
13#	2G394	150m	3.5M	2.5m	#S		10	20	200m	6.0u	1.0Ø	10m	25 †				12p	A	TO5	
14#	2SA65	150m	3.8MΔ	3.0m	ØJ	18	18	12	200m	12uØ	.50Ø	100mØ	80				16pØ	A	TO1	A
15	2N1361	150m	4.0M	2.5m	#S	25	20	15	200m	6.0uØ	.15Ø	25mØ	40 †Δ				20pØ	Δ	TO5§	
16#	CP98	150m	4.0MΔ		#J	65		55				30m	30 †Δ					AΔ	TO5	
17	GT2693	150m	4.0M	2.5m	#J	30	15	20		25u	5.0Ø	1.0m	50	5.0ub			15p	FA	TO5	
18	GT2695	150m	4.0M	2.5m	#J	30	15	20		25u	5.0Ø	1.0m	20	5.0ub			15p	FA	TO5	
19	TIXA01	150m	4.0MΔ	2.0m	#S	50	35	40	150m	5.0uØ	6.0Ø	1.0mØ	180	72.u	4.8k	19	10pØ	A	TO39	
20	TIXA02	150m	4.0MΔ	2.0m	#J	40	25	30	150m	5.0uØ	4.0Ø	.50mØ	200	80u	10k	41	10pØ	A	TO39	
21#	2G508	150m	4.4M	3.7m	#J	16	16 §		100m	16u	5.0Ø	1.0m	112		3.2k		27p	AØ	TO5	
22#	2G509	150m	4.4M	3.7m	#J	16	16 §		100m		5.0Ø	1.0m	112		3.2k		27p	AØ	TO5	
23#	2G345	150m	5.0M§	2.3m	#J	15		10	100m	10u	6.0	1.0m	50 †				8.5p	A	R51	
24#	2G371	150m	5.0M§	2.3m	#J	20		10	100m	10u	6.0	1.0m	50 †				20p	A	R51	
25#	2G374	150m	5.0M§	2.3m	#J	20		10	100m	10u	6.0	1.0m	120				20p	A	R51	
26#	2G376	150m	5.0M§	2.0m	#A	30	30 §	10	300m	10u	1.0Ø	100mØ	70 †					A	R51	
27#	2G377	150m	5.0M§	2.0m	#A	60	60 §	10	300m	50u	1.0Ø	100mØ	70 †					A	R51	
28	2N315B	150m	5.0M	2.0m	#S	30		20		2.0uØ	5.0Ø	1.0m	70				14p		TO5	
29	2N1115A	150m	5.0MΔ	2.5m	#J	20	15	10	125m	6.0u							20p	AΔ	RO109	
30#	ASY49	150m	5.0M	3.0m	ØJ	100	20			6.0uØ	0.0	10mØ	30 †Δ					Δ	R47	
31#	ASY52	150m	5.0M	3.0m	ØJ	60	20			100u	0.0	10mØ	30 †Δ					Δ	R47	
32#	SFT126	150m	5.0M	2.5m	#J	24		12	250m	5.0u	6.0Ø	1.0mØ	30	24u	1.0k	3.5	9.0p	A		
33	TIXA03	150m	5.0M	2.0m	#J	25	20	25	150m	5.0uØ	6.0Ø	1.0mØ	100				7.0p	A	TO39	
34	TIXA04	150m	5.0M	2.0m	#J	25	20	25	150m	5.0uØ	6.0Ø	1.0mØ	200				7.0p	A	TO39	
35	TIXA05	150m	5.0M	2.0m	#J	20	15	20	150m	7.0u	6.0Ø	1.0mØ	30 *Δ				7.0p	A	TO39	
36	UST760	150m	5.0M	2.5m	#J		15			1.0u	6.0	1.0m	40				14p	A	TO9	
37#	2G395†	150m	5.5M	2.5m	#J	30	15	20	200m	6.0u	1.0Ø	10mØ	20 †Δ	b		90	12p	A	TO5	
38	2N2209	150m	6.0MΔ	2.0m	#S	30	12	12	100m	5.0uØ	.20Ø	24mØ	50 †Δ				20pØ	Δ	TO5	
39#	2SA458†	150m	6.0M	2.5m	#J	25	14	15	200m	5.0uØ	1.0Ø	10mØ	60 †				14p	A	R107 b	
40#	2SA459†	150m	6.0M	2.5m	#J	25	14	15	200m	5.0uØ	1.0Ø	10mØ	120 †				14p	A	R107 b	
41#	2G302	150m	7.0M	2.5m	#J		10	20	200m	6.0u	5.0	1.0m					12p	A		
42#	SFT107	150m	7.0M	2.5m	#J	18		12	100m	10u	6.0Ø	1.0mØ	40				8.0p	A	RO1	
43#	SFT127	150m	7.0M	2.5m	#J	24		12	250m	5.0u	6.0Ø	1.0mØ	35	28u	1.1k	3.5	9.0p	A		
44#	SFT136	150m	7.0M	3.0m	ØJ	35		20	250m	5.0u	1.0Ø	30mØ	50 †				10p	AΔ		
45#	2SA66	150m	7.5MΔ	3.0m	ØJ	18	18	12	200m	12uØ	.50Ø	100mØ	80				16pØ	A	TO1	A
46#	2G396†	150m	8.0M	2.5m	#J	30	20	20	200m	6.0u	1.0Ø	10mØ	30 †Δ	b		100	12p	A	TO5	
47	2N123/5†	150m	8.0M	1.6m	#S	20		10	125m	6.0u	5.0	1.0m	65	600nb	28	8.0	15p	A	TO5	
48#	64T1	150m	8.0M			30		20	200m	6.0u	1.0	10m	80 †						TO5	
49	TR123	150m	8.0M	2.5m	#J	20		10	125m	6.0u	5.0	1.0m	65	600nb	28	8.0	15p	AΔ		
50	TR396	150m	8.0M	2.5m	#S		20	20	200m	6.0u	5.0	1.0m	90	90ub			12p	AΔ		
51#	2G604†	150m	9.2M	2.5m	#S		30		200m	6.0u	1.0Ø	10m	70 †				12p	A	TO5	
52#	2G603†	150m	9.4M	2.5m	#S	30	15 §	20	200m	6.0uØ	1.0Ø	10mØ	40 †Δ				12p	A	TO5	
53#	2G605†	150m	9.4M	2.5m	#J	30	20 §	20	200m	6.0uØ	.25Ø	4.5mØ	75 †				12p	A	TO5	
54#	65T1	150m	10.M			30		20	200m	6.0u	1.0	10m	90 †						TO5	
55	R212	150m	10.MΔ	2.5m	#J	30	15	20	400m	5.0uØ	.35Ø	10mΔ	20 †Δ				14p	A	TO5	
56	SYL1655	150m	10.MΔ	2.5m	#S	30		20	400m	20u							20p	AΔ	TO5	
57	UST761	150m	10.M	2.5m	#J		10			1.0u	6.0	1.0m	75				14p	A	TO9	
58#	2SA67	150m	11MΔ	3.0m	ØJ	18	18	12	200m	12uØ	.50Ø	100mØ	80 †				16pØ	A	TO1	A
59#	2G309	150m	12M	2.3m	#J	15		10	100m	10u	6.0	1.0m	160				12p	AØ	R51	
60#	2G344	150m	12M§	2.3m	#J	15		10	100m	10u	6.0	1.0m	100 †				8.5p	A	R51	
61#	2G397†	150m	12M	2.5m	#J	30	15	20	200m	6.0u	1.0Ø	10mØ	40 †Δ	b		110	12p	A	TO5	
62	3907	150m	12.M	2.5m	#J	25		12	200m	20u	.15Ø	12mØ	45 †				15p	AΔ	TO5	
63#	ASZ10†	150m	12MΔ	5.0m	ØJ	50	30 §	.70	250m	30uØ	.55Ø	200mØ	20 †Δ				4.0pØ	D	X12	
64	2N2621	150m	13M§Δ	1.8m	♦S	15		1.0	100m	16uØ	6.0Ø	1.0mØ	15 †Δ				3.5pØ		TO5	
65	2N2624	150m	13M§Δ	1.8m	♦S	15		1.0	100m	16uØ	6.0Ø	1.0mØ	15 †Δ				3.5pØ		TO5	
66	2N2627	150m	13M§Δ	1.8m	♦S	15		.50	100m	20uØ	6.0Ø	1.0mØ	15 †Δ				3.5pØ		TO5	
67#	SFT108	150m	13.M	2.5m	#J	18		12	100m	10u	6.0Ø	1.0mØ	70				9.0p	A	RO1	
68#	SFT128	150m	14.M	2.5m	#J	24		12	250m	5.0u	6.0Ø	1.0mØ	55	42u	1.7k	3.8	9.0p	A		
69	2N2622	150m	15M§Δ	1.8m	♦S	24		1.0	100m	12uØ	12Ø	1.0mØ	15 †Δ				3.5pØ		TO5	
70	2N2625	150m	15M§Δ	1.8m	♦S	24		1.0	100m	12uØ	12Ø	1.0mØ	15 †Δ				3.5pØ		TO5	
71	2N2628	150m	15M§Δ	1.8m	♦S	24		.50	100m	14uØ	12Ø	1.0mØ	15 †Δ				3.5pØ		TO5	
72	2N3000	150m	15.M	2.5m	#J	45	15	35	400m	50u	5.0	1.0m	110				10p	AΔ	TO5	
73	2N2623	150m	16M§Δ	1.8m	♦S	32		1.0	100m	8.0uØ	12Ø	1.0mØ	20 †Δ				3.5pØ		TO5	
74	2N2626	150m	16M§Δ	1.8m	♦S	32		1.5	100m	8.0uØ	12Ø	1.0mØ	20 †Δ				3.5pØ		TO5	
75	2N2629	150m	16M§Δ	1.8m	♦S	32		.50	100m	10uØ	12Ø	1.0mØ	10 †Δ				3.5pØ		TO5	
76	UST762	150m	20.M	2.5m	#J		10			1.0u	6.0	1.0m	100				14p	A	TO9	
77#	2SA127	150m	25.M		ØJ	70		.50	50m	55u	6.0	1.0m					15p	D	TO44	
78	TR764	150m	25.M	2.8m	#J	20			200m	5.0u	4.5	1.0m	200					A		
79	UST764	150m	25.M	2.5m	#J		20			1.0u	6.0	1.0m	200				14p	A	TO9	
80	UST763	150m	30.M	2.5m	#J		6.0			1.0u	6.0	1.0m	120				14p	A	TO9	
81	2N934	150m	33M§Δ	2.5m	#	13		1.0	200m	6.0u	.30Ø	40mØ	60				8.0p	E	TO18	
82#	AFZ10	150m	35MΔ	5.0m	ØJ	40	30	.70	250m	35uØ	6.0Ø	10mØ	25 †Δ				4.0pØ	D	X12	
83	2N1300†	150m	40M§	2.5m	#A	13	12	1.0	100m	3.0uØ	.30Ø	10mØ	50					ME	TO5	A
84#	SFT115	150m	40.M	2.5m	#J	40		.50	10m	15u	9.0Ø	1.0mØ	60				2.5p	D		
85#	XA161	150m	40.M§	2.5m	#A	13		1.0	100m	20u	.30Ø	10mØ	50 †					ME	TO5	
86	2N1301†	150m	60M§	2.5m	#A	13	12	4.0	100m	3.0uØ	.50	40mØ	75					ME	TO5	A
87#	XA162	150m	60.M§	2.5m	#A	13		4.0	100m	20u	.50Ø	40mØ	50 †					MEΔ	TO5	
88	2N2588	150m	75M§Δ	2.0m	#S	40	20	1.0	30m	50u	12Ø	1.5mØ	50 Δ		400 Ø		2.5pØ	†	RO78	
89	2N501/18†	150m	90.M§	400u	#J	15	12 Ø	2.0	200m	100u	.50Ø	10mØ	20 †				5pØ	ME	TO18	
90	2N3216†	150m	90M§Δ	2.0m	#S	20	10	20	500m	2.0uØ	.22Ø	200mØ	60 †Δ				20pØ		TO5	
91	2N2943†	150m	120M§Δ	2.0m	#S	30	15	2.0	100m	25u	.50Ø	50m	45 †				4pØ	D	TO9	
92	2N2512	150m	140M§Δ	3.0m	ØS	70	70 §	1.0	30m	5.0uØ	6.0Ø	10mØ	40 Δ				5.0pØ		TO12	G
93	2N2048A†	150m	150M§Δ	2.0m	#S	30	20	2.5	100m	25u	.50Ø	50mØ	40 †Δ				3pØ		TO9	
94	2N2942†	150m	150M§Δ	2.0m	#S	50	25	2.5	100m	25u	.50Ø	50m	65 †				3.5pØ	D	TO9	
95	2N3400†	150m	150M§Δ	2.0m	#S	20	20	2.0	100m	5.0uØ	.50Ø	50mØ	35 †Δ				3pØ		TO9	
96	USAF509ES025P	150m	150M§Δ	2.0m	#S	15	6.0	2.0	100m	10u	5.0Ø	1.5m	45 Δ				8.5pØ	D	R99	
97	USAF513ES045P	150m	150M§Δ	2.0m	#S	40	16	2.0	100m	10uØ	5.0Ø	1.5m	45 Δ				8.5pØ	DE	R99	
98	TI385	150m	200M	2.5m	#J	30	30	2.0	50m	3.0uØ	6.0Ø	1.0mØ	35 †				2.4p	ME	R44	
99	TI386	150m	200M	2.5m	#J	30	30	2.0	50m	3.0uØ	6.0Ø	1.0mØ	35 †				2.6p	ME	R44	
100	TI387	150m	200M	2.5m	#J	30	30	2.0	50m	3.0uØ	6.0Ø	1.0mØ	35 †				2.4p	ME	R44	
101	TI396	150m	200M	2.5m	#J	50	50 Ø	5.0	50m	5.0uØ	1.0Ø	20mØ	220 †Ø				3.0p	ME	R44	
102#	2SA56†	150m	300M§		#J	15	15 Ø	3.5	50m	5.0uØ	.30Ø	10mØ	40 †				5.0p	ME	TO18	
103#	2SA126†	150m	300M§	2.0m	#J	15	15 Ø	1.0	50m	5.0uØ	.50	10m	40 †				5.0p	PME	TO18	
104#	2SA405†	150m	300M§		#J	15	15 Ø	3.5	50m	3.0uØ	.50Ø	10mØ	40 †				5.0p	ME	TO18	
105	2N779B†	150m	320M§Δ	2.0m	#S	15	15 Ø	2.0	100m	3.0uØ	5.0Ø	10mØ	50 †Δ				2.5pØ		TO18	A
106	2N846B†	150m	320M§Δ	2.0m	#S	15	15 Ø	2.0	100m	3.0uØ	5.0Ø	10mØ	25 †Δ				2.5pØ		TO18	A
107	101A†	150m	320M§	2.0m	#J	15		5.0	100m	10u	3.0Ø	50mØ	40 †					ME	TO18	A
108	101B†	150m	320M§	2.0m	#J	15		5.0	100m	10u	3.0Ø	50mØ	40 †					ME	TO18	A

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	101M†	150m	320M§	2.0m	#J	15		5.0	100m	10u	3.0Ø	50mØ	40 †					ME	TO18	A
2	201B	150m	320M§	2.0m	#J	15		2.0	100m	10u	5.0Ø	115m	45 Δ				8.5pØ	D	TO18	A
3	201M	150m	320M§	2.0m	#J	15		2.0	100m	10u	5.0Ø	115m	45 Δ				8.5pØ	D	TO18	A
4	TI711A	150m	360M§	2.0m	#J	18		2.0	100m	1.5u	7.0Ø	50mØ	50 †	45u	8.0		5.0p	MEΔ	TO18	
5	107A	150mØ	375M§	2.0m	#J	40		5.0		10u		400uØ	25 †					ME	TO18	
6	107B	150mØ	375M§	2.0m	#J	40		5.0		10u		400uØ	25 †					ME	TO18	
7	107M	150mØ	375M§	2.0m	#J	40		5.0		10u		400uØ	25 †					ME	TO18	
8	207A	150mØ	375M§	2.0m	#J	40		2.0		10u		1.5mØ	45 Δ					ME	TO18	
9	207B	150mØ	375M§	2.0m	#J	40		2.0		10u		1.5mØ	45 Δ					ME	TO18	
10	207M	150mØ	375M§	2.0m	#J	40		2.0		10u		1.5mØ	45 Δ					ME	TO18	
11	2N977†	150m	400M§Δ	2.0m	#S	15	10	2.0	200m	5.0uØ	.50	100mØ	40 †Δ				8pØ		TO18	A
12	2N1665	150m	400M*	2.5m	#S	15	12 Ø	.40	50m	10uØ	6.0Ø	10mØ	5.0 Δ				3.0p		TO5	
13	2N2928	150m	400M§Δ	2.0m	#S	15	13	.30	100m	5.0uØ	6.0Ø	2.0mØ	8.0 †Δ				2.5pØ	Ø	RO38	
14#	2SA411†	150m	400M§	2.0m	#J	15	15 Ø	2.5	150m	5.0uØ	.30	10m	40 †				1.5p	PEM	TO18	
15	2N559†	150m	440M§	2.0m	§S	15		5.0	50m	3.0uØ	1.0Ø	10mØ	50	9.0ub	7.0	25	6.0pØ	ME	TO28	
16	2N960/46†	150m	460M§	2.0m	#J	15	15	2.5		3.0uØ	.30Ø	10mØ	40 †				2.2p	EM	TO46	
17	2N961/46†	150m	460M§	2.0m	J	12	12	2.0		3.0uØ	.30Ø	10mØ	40 †				2.2p	EM	TO46	
18	2N962/46†	150m	460M§	2.0m	#J	12	12	1.3		3.0uØ	.30Ø	10mØ	40 †				2.2p	EM	TO46	
19	2N964/46†	150m	460M§	2.0m	#J	15	15	2.5		3.0uØ	.30Ø	10mØ	70 †				2.2p	EM	TO46	
20	2N1094	150m	645M§	2.0m	#J	30	15	1.0	40m	5.0uØ	6.0	4.0m	50	2.0ub	9.5	11	2.3p	D†	TO28	
21#	MM2550†	150m	1.0G§Δ	2.0m	#J	20	10	.50	100m	10uØ	5.0Ø	10mØ	20 †Δ				3.0pØ	EM	TO18	A
22	TIX3023	150m	2.4G§Δ	2.0m	#S	15	7.0	.30	50m	6.0uØ	5.0Ø	6.0mØ	40 Δ				3pØ	EM	u26	
23	UST10	165m		2.8m	#J		50			25u			22				35p	AΔ	TO9	
24	UST81	165m		2.8m	#J		25			6.0u	6.0	1.0m	90					A†	TO9	
25	UST722	165m		2.8m	#J		20			6.0u	6.0	1.0m	22					A	TO9	
26	UST87	165m	.50M	2.8m	#J		25			6.0u			38				35p	AΔ	TO9	
27	2N1287	165m	1.0M	2.8m	#	20		15	300m	10u	5.0	10m	40						TO5	
28	2N1287A	165m	1.0M	2.8m	#	20		15	300m	10u	5.0	10m	60						TO5	
29	UST88	165m	1.0M	2.8m	#J		25			6.0u			80				35p	AΔ	TO9	
30	UST19	165m	1.5M	2.8m	#J		25			6.0u			80				35p	AΔ	TO9	
31#	XC101	166m		3.3m	ØJ	35		12		10u	5.0	8.0mØ	66	96u	420	2.0		AΔ	R35	
32#	2SA128	170m	15MΔ	3.4m	ØJ	40	40	2.0	500m	50uØ	1.0Ø	400mØ	35				25pØ	D	TO44	G
33#	2SA129	170m	15MΔ	3.4m	ØJ	40	40	2.0	500m	50u	1.0Ø	400mØ	70 †				25pØ	D	TO44	G
34	MA112	175m			#S	15	15	15	200m	15u	6.0Ø	1.0m	30 Δ						TO5	
35	MA113	175m			#S	15	15	15	200m	15u	6.0Ø	1.0m	50 Δ						TO5	
36	MA114	175m			#S	15	15	15	200m	15u	6.0Ø	1.0m	100 Δ						TO5	
37	MA115	175m			#S	15	15	15	200m	15u	6.0Ø	1.0m	30 Δ						TO5	
38	MA116	175m			#S	15	15	15	200m	15u	6.0Ø	1.0m	50 Δ						TO5	
39	MA117	175m			#S	15	15	15	200m	15u	6.0Ø	1.0m	100 Δ						TO5	
40	MA286	175m			#S	10	10	10	200m		6.0Ø	1.0m	14 Δ						TO5	
41	MA287	175m			#S	10	10	10	200m		6.0Ø	1.0m	30 Δ						TO5	
42	MA288	175m			#S	10	10	10	200m		6.0Ø	1.0m	180 Δ						TO5	
43	MA890	175m	750kΔ	2.9m	#J	40	40 Ø	15	200m	100u	6.0Ø	1.0m	30 Δ				25pØ	A	TO5	
44	MA891	175m	1.0MΔ	2.9m	#J	40	40 Ø	15	200m	100u	6.0Ø	1.0m	50 Δ				25pØ	A	TO5	
45	MA892	175m	1.2MΔ	2.9m	#J	40	40 Ø	15	200m	100u	6.0Ø	1.0m	100 Δ				25pØ	A	TO5	
46	MA893	175m	1.7MΔ	2.9m	#J	40	40 Ø	15	200m	100u	6.0Ø	1.0m	190 Δ				25pØ	A	TO5	
47#	2SA174	175m	4.0M	3.5m	ØJ	20		10	50m	8.0u	1.0Ø	10m	60 †				13p	A	MM4	
48	TS1000	175m	12.M	2.9m	#J	30		20	400m			1.0mΔ	60 †				12p	AΔ		
49#	2SA170	175m	15M	3.5m	ØJ	20		10	50m	8.0u	1.0Ø	10m	70 †				11p	A	MM4	
50#	TJ1	180m	.50M	3.0m	*					10uØ	1.5Ø	2.0m	10					A		
51#	TJ2	180m	.50M	3.0m	*					10uØ	1.5Ø	2.0m	30					A		
52#	TJ3	180m	.50M	3.0m	*					10uØ	1.5Ø	2.0m	50					A		
53#	2SB162	180m	650k	3.5m	ØJ	30		10	100m	10uØ	1.0Ø	50mØ	50 †				30p	A	MM5	
54#	NKT222	180m	750kΔ	3.5m	ØJ	30	30 Ø	10	125m	40u		25mØ	150 †	1.0ub	65	7.0	45p	A†	TO5	
55#	NKT226	180m	750kΔ	3.5m	ØJ	30	30 Ø	10	125m	40u	4.5	1.0mØ	50 Δ	1.0ub	65	7.0	45p	AØ	TO5	
56#	NKT227	180m	750kΔ	3.5m	ØJ	60	60 Ø	10	125m	40u		25mØ	150 †	1.0ub	65	7.0	45p	A†	TO5	
57#	2SB164	180m	800k	3.5m	ØJ	30		10	100m	10uØ	1.0Ø	50mØ	70 †				30p	A	MM5	
58#	2SB166	180m	1.0M	3.5m	ØJ	30		10	100m	10uØ	1.0Ø	50mØ	100 †				30p	A	MM5	
59#	NKT252	180m	1.0M	3.0m	#J	12	12 Ø		25m	5.0u	4.5Ø	1.0mØ	35 Δ					A†	TO22	
60#	NKT254	180m	1.0M	3.0m	#J	12	12 Ø		25m	5.0u	4.5Ø	1.0mØ	85 Δ					A†	TO22	
61#	TK23A	180m	1.0M	4.0m	ØJ	50					12Ø	1.0m	50					A		
62#	2SB102	180m	1.2M	3.5m	ØJ	30		10	50m	10u	6.0Ø	1.0m	60	300nb	30	2.5		A	MM5	
63#	2SB104	180m	1.2M	3.5m	ØJ	30		10	100m	10u	1.0Ø	50mØ	70 †					A	MM5	
64	TR381	180m	1.2M	2.8m	#J		25					20mØ	50					A		
65	TR460	180m	1.2M	2.7m	#J	45		10	400m	15u	5.0	1.0m	24	1.0ub	40	3.0	50p	A		
66	TR461	180m	1.2M	2.7m	#J	45		10	400m	15u	5.0	1.0m	49	1.0ub	30	3.0	50p	A		
67#	NKT202	180m	1.5M	3.5m	ØJ	30	30 Ø	10	125m	40u	4.5	25m	150 †	1.0u	65	7.0	45p	A†	TO22	
68#	NKT203	180m	1.5M	3.5m	ØJ	30	30 Ø	10	125m	40u	4.5	1.0m	45	1.0u	65	7.0	45p	A	TO22	
69#	NKT204	180m	1.5M	3.5m	ØJ	30	30 Ø	10	125m	40u	4.5	1.0m	35	1.0u	65	7.0	45p	A	TO22	
70#	NKT205	180m	1.5M	3.5m	ØJ	30	30 Ø	10	125m	40u	4.5	1.0m	30	1.0u	65	7.0	45p	A†	TO22	
71#	NKT206	180m	1.5M	3.5m	ØJ	30	30 Ø	10	125m	40u	4.5	1.0m	100	1.0u	65	7.0	45p	AØ	TO22	
72#	NKT207	180m	1.5M	3.5m	ØJ	60	60 Ø	10	125m	40u	4.5	25m	150 †	1.0u	65	7.0	45p	A	TO22	
73#	TK40A	180m	1.5M	4.0m	ØJ	40		40			12Ø	1.0m	90					AB		
74	TR382	180m	1.5M	2.8m	#J	25		10	200m	10u	1.0Ø	20mØ	52				50p	A		
75#	421T1	180m	2.0M	3.3m		20	20	6.0	500m	16u	1.0	150m	60 Δ					A	TO1	
76#	2SA250	180m	50M	2.3m	ØJ			.50	10m	16uØ	6.0	1.0m	100				4.0p	D		
77	2N422A	185m	1.5M	2.5m	#S	35	20	12	200m	6.0uØ	6.0Ø	1.0m	30 Δ					Ø	TO5	
78	2N73	200m			*		50											ADΔ		
79	2N74	200m			*		50											ADΔ		
80	2N75	200m			#		20											ADΔ		
81#	AC115	200m*		5.0m	#J	26	16	3.0	50m	100u	5.0Ø	1.0mØ	15 Δ					A	TO1	
82#	ASY63†	200m		4.0m	ØJ	26	8.0			10uØ	.10Ø	3.0mØ	25 Δ						R47	
83#	NKT278	200m		3.1m	#J	15		5.0	125m	10uØ	4.5Ø	1.0mØ	45 Δ						TO1	A
84	TS601	200m			#J	12	9.0 §	5.0	400m	20uØ	1.0Ø	10mØ	37 †					A	TO9	
85	TS602	200m			#J	12	9.0 §	5.0	400m	20uØ	1.0Ø	10mØ	60 Δ					A	TO9	
86	TS603	200m			#J	20	18 §	5.0	400m	20uØ	1.0Ø	10mØ	37 †					A	TO9	
87	TS604	200m			#J	20	18 §	5.0	400m	20uØ	1.0Ø	10mØ	60 Δ					A	TO9	
88#	ACY34	200m	200kΔ	4.0m	ØJ	30	10			12u	2.0Ø	500uØ	20 Δ						R47	
89#	ACY35	200m	300kΔ	4.0m	ØJ	30	10			12u	2.0Ø	3.0mØ	30 Δ						R47	
90#	ACY36	200m	350k	4.0m	ØJ	32	16			12u	.70Ø	80mØ	30 †Δ						R47	
91	2N54	200m	500k		*A	45			10m				40 §	3.0ub	10	400				
92	2N55	200m	500k		*A	45			10m				36 §	5.0ub	15	750				
93	2N56	200m	500k		*A	45			10m				32 §	7.0ub	20	1.5k				
94#	ASY50	200m	500kΔ	4.0m	ØJ	20	10			12u	0.0	5.0mØ	15 †Δ	25u			18p	AΔ	R47	
95	TK46C	200m	500kΔ	4.0m	ØJ	20	10				0.0	5.0mØ	15				18p	A	R47	
96#	TK47C	200m	500kΔ	4.0m	ØJ	20				12uØ	0.0	5.0mØ	20 †Δ					AΔ	R47	
97	MA2043	200m	750kΔ	2.6m	#J	105	105 Ø		200m		.35Ø	5.0mØ	40 †Δ						TO5	
98	4JD1B2	200m	.80M	3.0m	#J	45		45	1	20uØ	.30Ø	200mØ	10				45p	BΔ		
99	4JD1B3	200m	.80M		#J	30			1	20u			15				45p	B		
100	4JD1B4	200m	.80M		#J	30			1	20u			15				45p	B		
101#	TK41	200m	900k	4.0m	ØJ	40		30			12Ø	1.0mØ	40				17p	A		
102#	GET103	200m	1.0M	5.0m	#J	30			1	25u	2.0Ø	1.0mØ	55					A	RO11	
103#	GET104	200m	1.0M	5.0m	#J	30		12	1	25u	.50Ø	250mØ	30 †					A	RO11	
104#	GET106	200m	1.0M	5.0m	#J	15			1	25u	2.0Ø	1.0mØ	55					A	RO11	
105#	GET111	200m	1.0M	5.0m	#J	60		12	1	25u	.50Ø	250mØ	30 †					A	RO11	
106#	GET114	200m	1.0M	5.0m	#J	15			1	25u	2.0Ø	1.0mØ	55	30u	1.4k	3.0	90p	A†	RO11	
107#	GET535	200m	1.0M	5.0m	#J	30		6.0	1.5	25u	.50	500m	50 †					A	TO5	
108#	GET536	200m	1.0M	5.0m	#J	30		6.0	1.5	25u	.50	500m	75 †					A	TO5	
109#	GET538	200m	1.0M	5.0m	#J	60		6.0	1.5	25u	.50	500m	50 †					A	TO5	
110	KGS1000	200m	1.0MΔ	2.9m	#S	10		10	400m	25u	6.0	1.0m	15		30		14p		TO5	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	NKT273	200m	1.0M	3.0m		18		5.0	300m	40u	1.5	200m	45 †					A	TO1	
2#	NKT275A	200m	1.0M	3.0m		15		5.0	10m	40u	4.5	1.0m	50					A	TO1	
3#	NKT275E	200m	1.0M	3.0m		10		5.0	10m	40u	4.5	1.0m	120					A	TO1	
4#	NKT275J	200m	1.0M	3.1m	#J	15	15 §	5.0	250m	10uØ	4.5Ø	1.0mØ	50						TO1	A
5#	SFT141	200m	1.0M	3.3m	#J	45		25	250m	10u	6.0Ø	1.0mØ	32	20u	1.1k	2.7	30p	A		
6#	TK23	200m	1.0M	4.0m	ØJ	50		20			12Ø	1.0mØ	50	20u	1.5k	2.0	14p	A		
7#	TK23C	200m	1.0M	4.0m	ØJ	40		20		5.0uØ	12Ø	1.0mØ	60	16u	1.5k	3.0	16p	AØ	R47	
8#	ACY27	200m	1.1M	4.0m	ØJ	40	20	30		12uØ	12Ø	1.0mØ	40	13u	1.2k	3.0	16p	AØ	R47	
9#	ACY28	200m	1.1M	4.0m	ØJ	40	15	30		12uØ	12Ø	1.0mØ	66	16u	2.0k	3.5	16p	AØ	R47	
10#	ACY31	200m	1.1M	4.0m	ØJ	50	30			12uØ	12Ø	1.0mØ	35 Δ						R47	
11#	TK41C	200m	1.1M	4.0m	ØJ	40	20	30			12Ø	1.0mØ	40	13u	1.2k	3.0	16p	A	R47	
12#	TK42C	200m	1.1M	4.0m	ØJ	40	15	30			12Ø	1.0mØ	40	13u	1.2k	3.0	16p	A	R47	
13#	AC155†	200m*	1.2M§	5.0m	#J	26	16	3.0	50m	100u	5.0Ø	1.0mØ	43				100pØ	AØ	TO1	
14#	SFT142	200m	1.2M	3.3m	#J	45		25	250m	10u	6.0Ø	1.0mØ	50	26u	1.6k	3.2	30p	A		
15#	SFT151	200m	1.2M	3.3m	#J	24		12	150m	15u	6.0Ø	1.0mØ	30	20u	1.0k	2.7	32p	A		
16#	2SB450	200m	1.3M			25	25		500m	20uØ	1.0Ø	150mØ	120 †					A	TO1	
17#	2SB450A	200m	1.3M			32	32		500m	20uØ	1.0Ø	150mØ	120 †					A	TO1	
18#	GET5	200m	1.3M		*S	20			50m	6.0uØ	12	1.0m					38p	A		
19#	SFT121	200m	1.3M	3.3m	#J	24		12	250m	15u	1.0Ø	100mØ	30 †	20u	1.1k	2.7	32p	Δ		
20#	ACY29	200m	1.4M	4.0m	ØJ	40	15	30		12uØ	12Ø	1.0mØ	66				16p	AØ	R47	
21#	TK42	200m	1.4M	4.0m	ØJ	40		30			12Ø	1.0mØ	70				17p	A		
22#	TK45C	200m	1.4M	4.0m	ØJ	40	15	30		12uØ	12Ø	1.0mØ	66				16p	AØ	R47	
23#	ASY82†	200m*	1.5M§	5.0m	#J	26	16	12	500m	100u	0.0	10mØ	130 †Ø				100pØ	A	TO1	
24#	ASY84†	200m*	1.5M§	5.0m	#J	40	20	12	500m	100u	0.0	10mØ	130 †Ø				100pØ	A	TO1	
25#	AT74	200m	1.5M	3.3m	#J	20	20	6.0	300m	12u	2.0	10m	90	290u	285	30		A	TO1	A
26#	AT74S	200m	1.5M	3.3m	#J	40	35	12	300m	14u	12	1.0m	50					A	TO1	A
27#	GET102	200m	1.5M	5.0m	#J	30			1	25u	2.0Ø	1.0mØ	100	50u	2.7k	3.0	90p	A†	RO11	
28#	GET113	200m	1.5M	5.0m	#J	15			1	25u	2.0Ø	1.0mØ	100	50u	2.7k	3.0	90p	A†	RO11	
29#	TK40	200m	1.5M	4.0m	ØJ	40		40			12Ø	1.0mØ	90				14p	A		
30#	SFT122	200m	1.6M	3.3m	#J	24		12	250m	15u	1.0Ø	100mØ	50 †		1.6k	3.2	32p	A		
31#	SFT152	200m	1.6M	3.3m	#J	24		12	150m	15u	6.0Ø	1.0mØ	50	27u	1.5k	3.2	32p	A		
32#	AC156	200m*	1.8M§	5.0m	#J	26	16	3.0	50m	100u	5.0Ø	1.0mØ	85				100pØ	AØ	TO1	
33#	ACY30	200m	1.8M	4.0m	#J	40	20	40		12uØ	12Ø	1.0mØ	90	18u	2.6k	4.0	14p	AØ	R47	
34#	TK40C	200m	1.8M	4.0m	ØJ	40	20	40		12uØ	12Ø	1.0mØ	90	18u	2.6k	4.0	14p	AØ	R47	
35#	2SB51	200m	2.0M		#J	30		3.0	200m	16u	1.0Ø	20m	43 †	.60u	28	8.0	25p	A†	TO5	
36#	AC113†	200m*	2.0M§	5.0m	#J	26	16	3.0	50m	100u	5.0Ø	1.0mØ	90				100pØ	AØ	TO1	
37#	AC154†	200m*	2.0M§	5.0m	#J	26	16	6.0	500m	100u	1.0Ø	300mØ	80 †				100pØ	A	TO1	
38#	AC165†	200m*	2.0M§	5.0m	#J	32	20	3.0	50m	100u	5.0Ø	1.0mØ	90				100pØ	AØ	TO1	
39#	AC166†	200m*	2.0M§	5.0m	#J	32	20	6.0	500m	100u	1.0Ø	300mØ	80 †				100pØ	A	TO1	
40#	AC167†	200m*	2.0M§	5.0m	#J	32	20	6.0	500m	100u	1.0Ø	300mØ	80 †				100pØ	A	TO1	
41#	AC177†	200m*	2.0M§	5.0m	#J	32	20	6.0	500m	100u	1.0Ø	300mØ	80 †				100pØ	A	TO1	
42#	ASY56	200m	2.0M§Δ	4.0m	ØJ	16	10	12		10u	0.0	10mØ	25 †Δ				13p	AΔ	R47	
43#	TK21	200m	2.0M	4.0m	ØJ	30		30			30	500uØ	22	17u	700	1.6		AB		
44#	TK26	200m	2.0M	4.0m	ØJ	30		30			.50Ø	20m	23					AB		
45#	TK35C	200m	2.0M§Δ	4.0m	Ø	16		12		8.0u	.50Ø	10m	2.0				13p	A	R47	
46#	SFT153	200m	2.4M	3.3m	#J	24		12	150m	15u	6.0Ø	1.0mØ	80	40u	2.3k	3.8	32p	A		
47#	ASY83†	200m*	2.5M§	5.0m	#J	26	16	12	500m	100u	0.0	10mØ	320 †Ø				100pØ	A	TO1	
48#	ASY85†	200m*	2.5M§	5.0m	#J	40	20	12	500m	100u	0.0	10mØ	320 †Ø				100pØ	A	TO1	
49#	SFT123	200m	2.6M	3.3m	#J	24		12	250m	15u	1.0Ø	100mØ	85 †		2.4k	4.0	32p	A		
50#	2G303	200m	3.0M§Δ			30	30 §	10	300m		6.0Ø	1.0mØ	30 Δ				12pØ	A	R44	
51#	2SB52	200m	3.0M		#J	30		3.0	200m	16u	1.0Ø	20m	83 †	.60u	28			A†	TO5	
52#	2SB53	200m	3.0M		#J	30		15	250m	10u	1.0Ø	20m	73 †	.60u	28			AØ	TO5	
53#	TK27	200m	3.5M	4.0m		30		30			.50Ø	40m	40	23u	1.2k	3.0		AB		
54#	ASY57	200m	3.7M§Δ	4.0m	ØJ	16	10	12		10u	0.0	10mØ	30 †Δ				14p	AΔ	R47	
55#	TK36C	200m	3.7M§Δ	4.0m	Ø	16		12		8.0u	.50Ø	10m	3.7				13p	A	R47	
56	2N1361A	200m	4.0M	3.3m	#S	25	20	15	200m	6.0uØ	.15Ø	25mØ	40 †Δ				20pØ	Δ	TO5§	
57	2N110	200m	5.0M	3.3m	#J	50		50	40m		10	1.0m	3.0				.50p	PC	OV2	
58	2N1942†	200m	5.0MΔ	3.3m	#J	20	10	20	500m	1.5uØ	.20Ø	200mØ	20 †Δ#				20pØ		TO5	
59	40403†	200m	5.0M§Δ	3.0m	#S	30	20	20	200m	6.0uØ	1.0Ø	10mØ	150 †Ø				20pØ	A	TO5	A
60	KGS1001	200m	5.0M	2.9m	#S	15		1.0	400m	50u	6.0	1.0m	30		30		14p		TO5	
61	KGS1005	200m	5.0M	2.9u		30						150m	40					A	TO5	
62	MA1708	200m	5.0MΔ	2.6m	#J	15	15 §	4.5	500m	15u	1.0Ø	100mØ	200 †Δ	b	37 Ø		20pØ	A†Δ	TO5	
63#	ASY54	200m	6.0M	4.0m	ØJ	30	15			10uØ	.20Ø	100mØ	15 Δ				Δ		R47	
64	MA1705	200m	6.0MΔ	2.6m	#J	25	25 §	25	500m	15u	1.0Ø	100mØ	200 †Δ	b	35 Ø		20pØ	A†Δ	TO5	
65#	TK30	200m	6.0M	4.0m	ØJ	30		30			4.5Ø	1.0mØ	40	30u	1.1k		20p	AΔ		
66#	TK30C	200m	6.0M	4.0m	ØJ	30	10				4.5Ø	1.0mØ	40	30u	1.1k		20p	AΔ	R47	
67#	2G138	200m	7.0M	3.3m	#J	15	10	15	200m	6.0uØ	5.0Ø	1.0m			575	1.8	12p	AØ	TO5	
68#	2G601	200m	7.0M	3.3m	#S	20		20	200m	6.0u	5.0	1.0m					12p	A		
69#	ASY58	200m	7.0M§Δ	4.0m	ØJ	16	10	12		10u	0.0	10mØ	40 †Δ				15p	AΔ	R47	
70	MA1702	200m	7.0MΔ	2.6m	#J	45	30 §	30	500m	50u	1.0Ø	100mØ	200 †Δ	500nbØ	35 Ø		20pØ	A†Δ	TO5	
71#	TK37C	200m	7.0M§Δ	4.0m	Ø	16		12		8.0u	.50Ø	10m	7.0				13p	A	R47	
72#	2G139	200m	8.0M	3.3m	#J	15	10	15	200m	6.0uØ	5.0Ø	1.0m			1.0k	1.5	12p	AØ	TO5	
73	KGS1002	200m	8.0M	2.9m	#S	15		1.0	400m	50u	6.0	1.0m	30		30		14p		TO5	
74#	TK28	200m	8.0M	4.0m	ØJ	26		20									18p	AΔ		
75#	TK28C	200m	8.0M	4.0m	ØJ	26	25	20			.10Ø	3.0mØ	46 †				18p	AΔ	R47	
76	2N25	200m	9.0M		*S	50	50	5.0	30m	3.5mØ								PC		
77#	2G602	200m	10M		#	20		20	200m	6.0u	5.0	500u					12p	A		
78	KGS1003	200m	10.M	2.9m	#S	15		1.0	400m	50u	6.0	1.0m	90		30		14p		TO5	
79#	2G140	200m	11M	3.3m	#S	15		20	200m	6.0u	5.0	500u					12p	A		
80#	ASY55	200m	11M	4.0m	ØJ	20	5.0	15		10u	.20Ø	100mØ	50 †	60u	1.8k			AΔ	R47	
81#	TK31	200m	11M	4.0m	ØJ	20		15			4.5Ø	1.0mØ	60	60u	1.8k		18p	AΔ		
82#	TK31C	200m	11M	4.0m	ØJ	20	5.0	15			4.5Ø	1.0mØ	60	60u	1.1k		18p	AΔ	R47	
83#	2G141	200m	12M	3.3m	#S	15		20	200m	6.0u	5.0	500u					12p	A		
84#	2G304	200m	12M§	3.0m	#A	30	30	10	300m	2.0uØ	6.0Ø	1.0mØ	130				8.5p	AΔ	R44	A
85#	ASY59	200m	12M§Δ	4.0m	ØJ	16	10	12		10u	0.0	10mØ	60 †Δ				13p	AΔ	R47	
86#	TK38C	200m	12M§Δ	4.0m	Ø	16		12		8.0u	.50Ø	10m	12				13p	A	R47	
87#	2G306	200m	20M§	3.0m	#A	20	20	10	300m	2.0uØ	6.0Ø	1.0mØ	160				8.5p	AΔ	R44	A
88	KGS1004	200m	25.MΔ	2.9u		10						1.0mΔ	70 Δ					A	TO5	
89	2N2225†	200m	30.M	5.0m	#S	15	4.0	10	400m	25u	.50Ø	400mØ	60 †				14p	A	TO5	
90#	2SA90	200m	60.MΔ		#J	30		.50	20m	.50u	9.0Ø	1.5m	60				2.3p	D		
91#	2G404	200m	75.M§	3.1m	#J	20		1.0	25m	50u	6.0	1.0m	150				2.5p	AD	TO12	
92#	2G401	200m	80.M§	3.1m	#J	20	20 §	1.0	25m	50u	6.0Ø	1.0mØ	100 †				2.5p	AD	TO5	
93#	2G402	200m	80.M§	3.1m	#J	20	20 §	1.0	25m	50u	6.0Ø	1.0mØ	100 †				2.5p	ADØ	TO5	
94#	2G403	200m	130M§	3.1m	#J	40	40 §	1.0	25m	10uØ	6.0Ø	2.0mØ	100 †				2.5p	ADØ	TO12	
95	XT100	200m	300M§	2.6m	#S	35	30	4.0	500m	7.0uØ	1.5Ø	400mØ	35 †				1.5p	DΔ	TO9	
96#	2SA425	200m	350M§	3.3m	#J	30		.50	30m	10uØ	6.0	2.0m	25				3.3p	ME	TO5	
97#	2SA253	200m	450M		#J	20			30m	8.0u	5.0Ø	10m	30				2.5p	ME	TO39	
98#	2SA426	200m	500M§	3.3m	#J	30		.50	30m	10uØ	6.0	2.0m	30				2.5p	ME	TO5	
99	GA53233	200m	500M		#S	20			10m		20	10m	3.0				5.0p	DΔ		
100	AC139K/AC142	210m	1.5M	3.3m	#J	40	25	3.0	1.2	10uØ	0.0	400mØ	100 †				40p	A		
101	GT81HS	225m		3.0m	#S	25		10		250n	5.0Ø	1.0m	120	500nb	40	8.0	35p	A		
102#	SFT244	225m		3.7m	#J	80		25	500m	25u	1.0Ø	100mØ	40 †					A	TO5	
103#	SFT245	225m		3.7m	#J	100		25	500m	50u	1.0Ø	100mØ	40 †					A	TO5	
104#	2SB174	225m	.70M		ØJ	20		6.0	300m	20uØ	1.0Ø	300m	65 †					A	R8	
105#	2SB219	225m	1.0M	3.7m	#J	30	25 §	10	200m	16uØ	1.0Ø	20mØ	31 †				25p	A	TO5	
106#	2G319	225m	2.0M	3.7m	#J	30	20 §	3.0	200m	16uØ	1.0Ø	20mØ	35 †	b	30		27p	A†	TO5	
107#	2G524†	225m	2.0M	3.7m	#J	45	30 §	15	500m	10uØ	5.0Ø	1.0m	30	650nb	3.1	4.0	27p	A†	TO5	
108#	2G1024†	225m	2.0M	3.7m	#J	70	40 §	20	500m	30u	5.0Ø	1.0m	30	700nb	30	4.0	27p	A†	TO5	
109#	2SB224	225m	2.0M	3.7m	#J	45	30 §	15	500m	10uØ	1.0Ø	20mØ	35 †					A	TO5	
110#	2G320	225m	2.5M	3.7m	#J	30	20 §	3.0	200m	16uØ	1.0Ø	20mØ	54 †	b	30		27p	AØ	TO5	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1#	2G525†	225m	2.5M	3.7m	#J	45	30 §	15	500m	10uØ	5.0Ø	1.0m	44	600nb	3.1	5.0	27p	A†	TO5	
2#	2G577	225m	2.5M	3.7m	#J	70	30 §	20	500m	30uØ	5.0Ø	1.0m	65	500nb	29	5.0	27p	A†Δ	TO5	
3#	2G1025†	225m	2.5M	3.7m	#J	70	40 §	20	500m	30u	5.0Ø	1.0m	44	640nb	29	4.5	27p	A†	TO5	
4#	2G526†	225m	3.0M	3.7m	#J	45	30 §	15	500m	10uØ	5.0Ø	1.0m	64	420nb	30	6.5	27p	A†	TO5	
5#	2G1026†	225m	3.0M	3.7m	#J	70	40 §	20	500m	30u	5.0Ø	1.0m	64	450nb	28	5.0	27p	A†	TO5	
6#	2G321	225m	3.1M	3.7m	#J	30	20 §	3.0	200m	16uØ	1.0Ø	20mØ	85 †	b	30		27p	AØ	TO5	
7#	2G527†	225m	3.3M	3.7m	#J	45	30 §	15	500m	10uØ	5.0Ø	1.0m	81	370nb	29	8.0	27p	A†	TO5	
8#	2G1027†	225m	3.3M	3.7m	#J	70	40 §	20	500m	30u	5.0Ø	1.0m	87	420nb	28	5.2	27p	A†	TO5	
9#	2SA86	225m	50.M	5.0m	#	45		1.0	10m		9.0	1.0m	80	8.5u	2.2k	1.7	2.2p		TO44	
10#	ASY12	227m		4.5m	ØJ	32	32 §		600m	20uØ	.60Ø	600mØ	20 †Δ					A	R43	
11#	ASY13	227m		4.5m	ØJ	60	60 §		600m	20uØ	.60Ø	600mØ	20 †Δ					A	R43	
12#	OC318	227m	1.5M	4.5m	ØJ	20	20 §		300m	20uØ	1.0Ø	300mØ	65 †					A	R43	
13#	2G270	240m	2.5M	4.0m	#J	30	20 §		200m	16u	1.0Ø	100m	40 †		120			AØ	TO5	
14#	2G271	240m	3.1M	4.0m	#J	30	20 §		200m	16u	1.0Ø	100m	75 †		200			AØ	TO5	
15	2N2718†	240m	150M§Δ	3.2m	#S	20	12	3.5	400m	7.0uØ	.27Ø	170mØ	25 †Δ				10pØ		TO5	
16	GA52996	250m			#S	100		100	50m	3.0mØ								PC		
17	TF75	250mØ			*A		13		125m			20mØ	30							
18	T1000	250m	.60M										85 Ø						TO25	
19	T1001	250m	.60M										120 Ø						TO25	
20#	2G381	250m	1.0M§Δ			20	20 §	3.0	500m		6.0Ø	1.0mØ	30 Δ				35pØ	AΔ	R51	
21#	2G382	250m	1.0M§Δ			30	30 §	10	500m		6.0Ø	1.0mØ	30 Δ				35pØ	A	R51	
22#	2G383	250m	1.0M§Δ	3.8m	#J	70	30	12	1	10uØ	1.0Ø	50mØ	40 †Δ					A	TO5	
23#	2G384	250m	1.0M§Δ	3.8m	#J	50	25	12	1	10uØ	1.0Ø	50mØ	55 †Δ					A	TO5	
24#	2G385	250m	1.0M§Δ	3.8m	#J	50	25	12	1	10uØ	1.0Ø	50mØ	100 †Δ					A	TO5	
25#	2G386	250m	1.0M§Δ	3.8m	#J	40	20	12	1	10uØ	1.0Ø	50mØ	55 †Δ					A	TO5	
26#	2G387	250m	1.0M§Δ	3.8m	#J	40	20	12	1	10uØ	1.0Ø	50mØ	100 †Δ					A	TO5	
27#	2SB268	250m	1.0M	4.1m	#J	30	30 §	15	150m	10uØ	1.0Ø	150mØ	70 †					A	R27	A
28#	2SB317	250m	1.0M	4.2m	#J	16	16 Ø	6.0	300m	14uØ	1.0Ø	150mØ	60 †					A	R27	
29#	2SA41	250m	6.0M			35		20	40m	50u	6.0Ø	1.0m	45	23u	1.3k	2.9	10p	A	TO1	
30#	2SA42	250m	6.0M			45		20	40m	50u	6.0Ø	1.0m	45	21u	1.3k	2.7	10p	A	TO1	
31	2N1174†	250m	7.0M	3.3m	#J	35		35	200m	10uØ	10Ø	500uØ	85	170nb	56	8.3	15p	AØ	TO29	
32	2N1495A	250m	150M§	3.3m	#S	40	25	4.0	500m	2.0uØ	.50Ø	200mØ	25 †Δ				6.5p		TO9Ø	
33	2N1403	250m	200MΔ	3.0m	#S	15	12	1.0	100m	7.0uØ	1.5Ø	7.0mØ	25 †Δ				6pØ		RO24Ø	
34	2N537	250m	600M§	3.3m	#J	30		1.0	100m	3.0uØ	10	10m	24	12ub	5.7		3.0p	D	TO29	
35	2N509	250m	750M	3.3m	#J	30		2.0	40m	5.0u	10	10m	49	10ub	6.0	13	2.5p	AΔ		
36	XT200	250m	1.0G§	3.3m	#S	35		2.0	300m	5.0uØ							11p	D	TO9	
37	2N2786	260m	225M§Δ	4.0m	#S	35	20	.50	150m	10uØ	2.0	100mØ	33 †Δ		30		5.0pØ	PD	TO39	AØ
38	2N2786A	280m	225M§Δ	4.3m	#S	35	20	.50	150m	10uØ	2.0Ø	100mØ	33 †Δ		30		5.0pØ	PD	TO39	AØ
39	2N2100A†	300m		4.0m	#S	40	20	4.0	500m	12uØ	1.0Ø	200mØ	30 †Δ				20pØ		TO9	
40	2N2238	300m		30u	#	30		1.0	50m	100u	10	10m	24	20u	10	30	3.0p		TO5	
41	B1022	300m		2.5m	#	15		15	300m	25u	5.0	10m	20		2.0k				TO5	
42#	NKT239	300m		5.0m	#J	50	30	12	1.0	10uØ	0.0Ø	50mØ	80 †Δ						TO5	A
43#	NKT240	300m		5.0m	#J	40	20	12	1.0	10uØ	0.0Ø	50mØ	50 †Δ						TO5	A
44#	NKT241	300m		5.0m	#J	40	20	12	1.0	10uØ	0.0Ø	50mØ	90 †Δ						TO5	A
45#	NKT242	300m		5.0m	#J	20	15	12	1.0	10uØ	0.0Ø	50mØ	30 †Δ						TO5	A
46#	NKT243	300m		5.0m	#J	110	40	12	1.0	10uØ	0.0Ø	50mØ	50 †Δ						TO5	A
47#	NKT244	300m		5.0m	#J	32	18	12	1.0	10uØ	0.0Ø	50mØ	30 †Δ						TO5	A
48#	NKT245	300m		5.0m	#J	32	18	12	1.0	10uØ	0.0Ø	50mØ	50 †Δ						TO5	A
49	2N674	300m	.40MΔ	5.0m	#J	75		70	2	100uØ	1.5Ø	1 Ø	40 †#Δ					A	TO5	
50	2N670	300m	.65M	5.0m	#J	40	40 Ø	40	2	75uØ	1.5Ø	1 Ø	100 †					AΔ	R2	
51#	AT128	300m	.70M§	5.0m	#J	32	32 Ø	15	1 #	14u								A	TO1	A
52#	NKT221	300m	750kΔ	5.0m	ØJ	30	30 Ø	10	500m	40u		500mØ	30 †Δ				60pØ	A	TO5	
53#	NKT228	300m	750kΔ	5.0m	ØJ	30	30 Ø	10	500m	40u		500mØ	30 †Δ				60pØ	A	TO5	
54#	NKT237	300m	750kΔ	5.0m	#J	70	32	12	1.0	10uØ	0.0Ø	50mØ	50 †Δ						TO5	A
55#	NKT238	300m	750kΔ	5.0m	#J	50	30	12	1.0	10uØ	0.0Ø	50mØ	40 †Δ						TO5	A
56#	2SB451	300m	1.0M	5.0m	#J	25	25 Ø	6.0	1.0	30uØ	1.0Ø	150mØ	80 †					A	R107 b	
57#	2SB452	300m	1.0M	5.0m	#J	25	25 Ø	6.0	1.0	30uØ	1.0Ø	150mØ	150 †					A	R107 b	
58#	2SB452A	300m	1.0M	5.0m	#J	32	25 Ø	6.0	1	30uØ	1.0Ø	150mØ	150 †					A	R107 b	
59#	NKT251	300m	1.0M	5.0m	#J	18	18 Ø		500m	5.0u	1.5Ø	200mØ	50 †Δ					A	TO22	
60#	NKT253	300m	1.0M	5.0m	#J	18	18 Ø		500m	5.0u	1.5Ø	200mØ	25 †Δ					A†	TO22	
61#	NKT263	300m	1.0M	5.0m	#J	18	18 Ø		500m	5.0u	1.5Ø	200mØ	25 †Δ					A†	TO5	
62#	NKT222S1	300m	1.2M§	5.0m	#J	40	30 Ø	12	1	100u	0.0	50mØ	50 †Δ				40p	AΔ	TO5	
63#	NKT201	300m	1.5M	5.0m	#J	30	30 Ø	10	500m	40u	4.5	500m	70 †	1.0u	65	7.0	45p	A	TO22	
64#	NKT208	300m	1.5M	5.0m	#J	30	30 Ø	10	500m	40u	4.5	500m	70 †	1.0u	65	7.0	45p	A	TO22	
65#	NKT231	300m	1.5M	5.0m	#J	15	15 Ø	10	500m	25u	4.5	1.0m	110	1.0ub	65	7.0	40p	A	TO5	
66#	NKT232	300m	1.5M	5.0m	#J	15	15 Ø	10	500m	25u	1.5	150m	150 †	1.0ub	65	7.0	40p	A	TO5	
67#	NKT222S2	300m	1.8M§	5.0m	#J	40	30 Ø	12	1	100u	0.0	50mØ	50 †Δ				60p	AΔ	TO5	
68	CP800	300m	2.5MΔ	4.0m	#J	45		30	1.5	25u	.50Ø	1 Ø	20				20p	A	TO5	
69	CP801	300m	5.0MΔ	4.0m	#J	45		30	1.5	25u	.50Ø	1 Ø	30				20p	A	TO5	
70	CP802	300m	10.MΔ	4.0m	#J	30		20	1.5	25u	.50Ø	1 Ø	40				20p	A	TO5	
71	CP803	300m	15.MΔ	4.0m	#J	30		20	1.5	25u	.50Ø	1 Ø	50				20p	A	TO5	
72	2N3443	300m	75M§Δ	4.0m	#S	20	15	1.0	100m	5.0uØ	10Ø	10mØ	20 Δ				2.5pØ		TO5Ø	
73	TI440	300mØ	300M			15		3.5	50m	3.0uØ	.30Ø	10mØ	25 †Δ				5.0p	MEΔ	TO50	
74	2N2098	300m	1.0G§	13mØ	#S	30	15	1.0	300m	15uØ							6.5p	D	TO9	
75#	MM2552†	300m	1.0G§Δ	4.0m	#J	20	10	.50	100m	10uØ	5.0Ø	25mØ	30 †Δ				3.0pØ	EM	TO5	A
76#	MM2554†	300m	1.0G§Δ	4.0m	#J	20	10	.50	200m	10uØ	5.0Ø	40mØ	20 †Δ				4.0pØ	EM	TO5	A
77	XT200A	300m	1.0G§		#S	30	15	1.0	300m	100u	15Ø		7.0 §				8.0p	D	TO31	
78	TI442	300mØ	3.0G			12		1.0	50m	3.0uØ	.50Ø	10mØ	20 †Δ				5.0p	MEΔ	TO50	
79#	ASY12-1	330m*		2.5m	ØJ	32	18	10	600m		.60Ø	600mØ	30 †					A	R43	
80#	ASY12-2	330m*		2.5m	ØJ	32	18	10	600m		.60Ø	600mØ	40 †					A	R43	
81#	ASY13-1	330m*		2.5m	ØJ	60	30	10	600m		.60Ø	600mØ	30 †					A	R43	
82#	ASY13-2	330m*		2.5m	ØJ	60	30	10	600m		.60Ø	600mØ	40 †					A	R43	
83	2N2962	350m	700M§Δ	33m	#S	40	18	1.5	300m	5.0uØ	15Ø	100mØ	6.0 §				10pØ	D	MT37	
84	2N2963	350m	700M§Δ	33m	#S	40	18	1.0	300m	5.0uØ	15Ø	100mØ	6.0 §				10pØ	D	MT37	
85	2N2964	350m	700M§Δ	33m	#S	30	15	1.0	300m	5.0uØ	15Ø	100mØ	6.0 §				10pØ	D	MT37	
86	2N2965	350m	700M§Δ	33m	#S	30	15	1.0	300m	5.0uØ	15Ø	100mØ	6.0 §				10pØ	D	MT37	
87	MN13A	380m	.75M	14m	#S	40		20	150m	25uØ	12Ø	25m	15					A		
88	MN13B	380m	1.3M	14m	#S	40		20	150m	25uØ	12Ø	25m	30					A		
89	MN13C	380m	2.4M	14m	#S	40		20	150m	25uØ	12Ø	25m	60					A		
90#	AC105	400m		13mØ	J	40	18	10	1	8.0uØ	1.0Ø	9.0mΔ	45 †Δ					A	X12	
91#	AC106	400m		13mØ	J	40	18	10	1	8.0uØ	1.0Ø	2.7mΔ	150 †Δ					A	X12	
92	2N2826	400m	17k†		#J	25	15	15	1.5		2.0Ø	100m	75 †Δ						TO37	
93	2N2827	400m	17k†		#J	40	30	20	1.5		2.0Ø	100m	75 †Δ						TO37	
94#	GET15	400m	1.0M	10m	*J	15			350m				55				65p	A		
95	B1154	400mØ	1.5M	6.7m		60						10mØ	60 †					A		
96#	125T1	400m	2.0M	12u	#J	20	20		400m	16uØ	20	1.0m	44	2.7u	1.4	3.4			TO5	
97#	126T1	400m	2.5M	12u	#J	20	20		400m	16uØ	20	1.0m	64	26u	1.9	1.0			TO5	
98#	127T1	400m	3.0M	12u	#J	20	20		400m	16uØ	20	1.0m	81	90u	2.3	6.0			TO5	
99#	SFT235	450m	.30M	7.7m	#J	100	60	20	1	750u	.50Ø	1 Ø	40 †					A	TO11	
100#	2SB105	500m	500k	10m	ØJ	30		10	500m	100u	2.0Ø	200mØ	70 †					A	R20	
101#	2SB108	500m	500k	10m	ØJ	40		10	500m	100u	2.0Ø	200mØ	70 †					A	R20	
102#	2SB108A	500m	500k	10m	ØJ	60		10	500m	100u	2.0Ø	200mØ	70 †					A	R20	
103#	2SB108B	500m	500k	10m	ØJ	80		10	500m	100u	2.0Ø	200mØ	70 †					A	R20	
104	GA52830	500m	8.0M	50m	#J	40		40	500m	100uØ	4.5Ø	20mØ	215	250nb	28	7.6	47p	AΔ		
105	2N3601†	500m	20M§Δ	6.7m	#S	100	40	2.5	3.5	200uØ	1.5Ø	1.0 Ø	60 †Δ						RO81Ø	
106	2N3603†	500m	20M§Δ	6.7m	#S	130	55	2.5	3.5	200uØ	1.5Ø	1.0 Ø	60 †Δ						RO81Ø	
107#	17T1	550m		9.1m	#J	35			500m			20mØ	100 †							
108#	18T1	550m		9.1m	#J	25			500m			20mØ	100 †							
109#	2SB106	700m	500k		ØJ	30		10		100u	2.0Ø	200mØ	20 †Δ					A	R20	
110#	2SB109	700m	500k		ØJ	40		10		100u	2.0Ø	200mØ	15 †Δ					A	R20	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CODE
1#	2SB109A	700m	500k			ØJ	60		10		100u	2.0Ø	200mØ	15 †Δ					A	MM5	
2#	2SB109B	700m	500k			ØJ	80		10		100u	2.0Ø	200mØ	15 †Δ					A	MM5	
3#	NKT352	750m		11m		#J	15	15 Ø	5.0	2	100uØ	1.5	1.0	20 †Δ						TO8	
4#	NKT361	750m		11m		#J	30	30 Ø	5.0	2	100uØ	1.5	1.0	15 †Δ						R91	
5#	NKT362	750m		20m		#J	15	150 Ø	5.0	2	100uØ	1.5	1.0	20 †Δ						R91	
6#	NKT301	750m	1.0M	11m		#J	60	40	15	2	1.0m	0.0	2.0 Ø	30 †Δ					A	TO8	
7#	NKT303	750m	1.0M	11m		#J	30	20	15	2	1.0m	0.0	2.0 Ø	30 †Δ					A	TO8	
8#	V6/2RJ	750m	3.0M	2.5m		ØJ	6.0			30m		4.5	1.0m	30						TO5	
9	2N1123	750mØ	10.M	10m		#J	35	35 Ø	30	500m	25u	1.0Ø	100mØ	125 †				15p	A	MT60	
10	2N3602†	750m	20M§Δ	10m		#S	100	40	2.5	3.5	200uØ	1.5Ø	1.0 Ø	60 †Δ						RO81Ø	
11	2N3604†	750m	20M§Δ	10m		#S	130	55	2.5	3.5	200uØ	1.5Ø	1.0 Ø	60 †Δ						MT58Ø	
12#	GET105	800m	1.0M	20m		#J	40			1	25u	5.0Ø	50mØ	30 †					A	MM6	
13#	GET110	800m	1.0M	20m		#J	40		12	1	25u	.50Ø	500mØ	20 †					A	MM6	
14#	*GET115*	*800m*	1.0M	20m		#J	15			1	25u	5.0Ø	50mØ	30 †					A	MM6	
15#	*GET116*	*800m*	1.0M	20m		#J	30			1	25u	5.0Ø	50mØ	30 †					A	MM6	
16#	*GET120*	*800m*	1.0MΔ	20m		#J	30		12	1	25u	.50Ø	500mØ	20 †					A	MM6	
17	2N80	50				Ø	25			8.0m	300u†Ø	6.0	1.0mØ	80							
18	2N96	50	.50M			*A	30		30	20m	10u	6.0Ø	1.0m	35 Δ				55			

3. GERMANIUM NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1	2N100	25m	5.0M		*A	25			5.0m	2.0uØ										
2#	2SC175	30m	10.M		ØJ	15			5.0m	8.0u	6.0	1.0m	24		38		2.1p	G	R17	
3#	2SC176	30m	10.M		ØJ	15			5.0m	8.0u	6.0	1.0m	24		38		2.1p	G	R17	
4#	2SC177	30m	10.M		ØJ	15			5.0m	8.0u	6.0	1.0m	24		38		2.1p	G	R17	
5#	2SC173	30m	20.M		ØJ	15			5.0m	8.0u	6.0	1.0m	41		35		2.0p	G	R17	
6#	2SC178	30m	20.M		ØJ	15			5.0m	2.0u	6.0	1.0m	49	.20u	33	2.0	1.5p	G	R17	
7	3N22	30m	24M		#J	15		2.0		10u			50	100ub			2.0p	G$		
8	3N36	30m	50.M	500u	#J	7.0		2.0	20m	10u	5.0	1.5m	9.0	1.2m	1.1k	220	2.0p		TO12	
9	3N37	30m	90.M	500u	#J	7.0		2.0	20m	10u	5.0	1.5m	13	1.4m	85	180	1.5p	Δ	TO12	
10#	2T53	40m		2.0m	*	25			5.0m	120uØ	4.5	1.0m					5.0p	G		
11#	2T54	40m	1.5M	2.0m	*	25			5.0m	12uØ	4.5	1.0m					5.0p	G		
12#	2T52	40m	2.5M	2.0m	*	25			5.0m	10uØ	4.5	1.0m					5.0p	G		
13#	2T51	40m	4.0M	2.0m	*	25			5.0m	10uØ	4.5	1.0m					5.0p	G		
14#	2T55	50m		1.2m	*J	25			10m	12u	6.0	1.0m	19				1.0p	G		
15#	2T56	50m		1.2m	*J	25			10m	12u	6.0	1.0m	19				1.0p	G		
16#	2T57	50m		1.2m	*J	25			10m	12u	6.0	1.0m	19				1.0p	G		
17#	2T58	50m		1.2m	*J	25			10m	12u	6.0	1.0m	19				1.0p	G		
18#	TF72	50m	.50M		*A	60			25m		5.0	1.0mØ	99	30u	2.0k	6.0		G		
19#	3604	50m	800k		*A	40		5.0	5.0m	10u	4.5	1.0m	13		850	5.0	30p			
20#	3607	50m	.80M		*A	40		5.0	5.0m	10u	4.5	1.0m	32		850	5.0	30			
21	2N97A	50m	1.0M		#	40			10m	2.0u	4.5	1.0m	13				19p	GΔ		
22#	3609	50m	1.8M		*A	40		5.0	5.0m	10u	4.5	1.0m	32		3.0k	10	20			
23	2N98A	50m	2.5M		#	40			10m	2.0u	4.5	1.0m	40				14p	GΔ		
24	TR194	50m	3.0M	1.0m	ØJ		15		50m		6.0	1.0m	8.0				10p	A		
25	TR216	50m	3.0M	1.0m	ØJ		15		50m		6.0	1.0m	8.0				11p	A		
26	GA53270	50m	3.4M	1.4m	#A	30		20	50m	10u	4.5	1.0m	49	280nb	27	1.8	42p	A		
27	TR193	50m	3.5M	1.0m	ØJ		15		50m				6.0					AB		
28	TR211	50m	3.5M	1.0m	ØJ		10		50m				30				10p			
29	3N23	50m	4.0M		ØA	30			5.0m	1.0uØ							5.0p	$		
30	2N127	50m	5.0M	1.4m	ØJ	10		5.0	8.0m	2.0uØ	6.0	5.0mØ	100 Δ†	200nb	59		10p		OV9	
31	3N23A	50m	6.0M		ØA	30			5.0m	1.0uØ							4.0p	$		
32	TR212	50m	6.0M	1.0m	ØJ		10		50m		6.0	1.0m	10				10p	A		
33	3N23B	50m	8.0M		ØA	30			5.0m	1.0uØ							3.0p	$		
34#	2T76	50m	10M	1.0m	ØJ	15			5.0m	8.0u	6.0	1.0m	19	130nb	38	170m	1.5p	G		
35	3N23C	50m	10.M		ØA	30			5.0m	1.0uØ							2.0p	$		
36#	2T71	50m	20.M	1.2m	*J	25			10m	12u	6.0	1.0m	49				1.0p	G		
37#	2T72	50m	20.M	1.2m	*J	25			10m	12u	6.0	1.0m	32				1.0p	G		
38#	2T73	50m	20M	1.0m	ØJ	15			5.0m	8.0u	6.0	1.0m	49	130nb	38	170m	1.4p	G		
39	3N31	50m	20.M		#J	7.0			20m	25u							3.1p	$		
40#	3T203	50m	20.M		*	30			5.0m	10uØ	22	2.0m						$		
41#	2T78	50m	30M	1.0m	ØJ	15			5.0m	2.0u	6.0	1.0m	45	130nb	38	170m		G		
42	3N29	50m	40.M		#J	7.0			20m	25u							4.2p	$		
43#	3T202	50m	40.M		*	30			5.0m	10uØ	22	2.0m						$		
44#	3T201	50m	60.M		*	25			5.0m	10uØ	22	2.0m						$		
45	3N30	50m	80.M		#J	7.0			20m	25u							5.0p	$		
46	4JD3B1	50m	100M		#J		10	2.0	20m								2.0p	$		
47#	2SC11	55m	6.0M		ØJ	18		12	24m	9.0u	6.0	1.0m					12p	A	TO1	
48	2N148	65m		1.3m	Ø	16			5.0m	200nØ	12	500uØ	35 §				1.0p	G		
49	2N148A	65m		1.3m	Ø	32			5.0m	200nØ	12	500uØ	35 §				1.0p	G		
50	2N149	65m		1.3m	Ø	16			5.0m	3.0uØ	12	500uØ	38 §				3.0pØ	G		
51	2N149A	65m		1.3m	Ø	32			5.0m	200nØ	12	500uØ	38 §				1.0p	G		
52	2N150	65m		1.3m	Ø	16			5.0m	200nØ	12	500uØ	41 §				1.0p	G		
53	2N150A	65m		1.3m	Ø	32			5.0m	200nØ	12	500uØ	41 §				1.0p	G		
54#	2SC13	65m	3.5MΔ		ØJ	18		12	40m	13u	1.0Ø	24mØ	50 †				10p	AΔ	TO9	
55	2N313	65m	5.0M	1.1m	#J	15			20m	.50uØ	5.0	1.0m	25				2.4p	G		
56	TR213	65m	5.0M	1.1m	#J		15		20m	.50uØ	5.0	1.0m	25				2.4p	G		
57	2N314	65m	8.0M	1.1m	#J	15			20m	.50uØ	5.0	1.0m	25				2.4p	G		
58	TR167	65m	8.0M	1.1m	#S	30		5.0	75m	.80uØ	5.0	1.0m	25			4.0				
59#	2SC14	65m	15M	1.3m	ØJ	18	18 Ø	12	40m	9.0uØ	1.0Ø	24mØ	48 †				10p	AΔ	TO5	
60	2N824†	70m	12.M	1.2m	#J	25	24	12	100m	5.0uØ	.25Ø	20mØ	40 †Δ				12p	FA	u9	
61#	TF71	75m	.40M	3.0m	*A	60			25m	200u	5.0	1.0mØ	24	10u	800	2.5		G		
62	CK261	75m	1.2M	1.3m	#J	35	12	20	100m	10uØ	6.0Ø	1.0m	54 Δ	36u	3.6k	7.0		FAØ	u8	
63	CK262	75m	1.2M	1.3m	#J	35	12	20	100m	10uØ	6.0Ø	1.0m	54 Δ	36u	3.6k	7.0		FAØ	u9	
64	2N822†	75m	10.MΔ	1.3m	#J	30	15	25	400m	10uØ	1.0Ø	50mØ	70 †				9.0p	FA	u9	
65	2N823†	75m	12.M	1.3m	#J	25	24	12	100m	5.0uØ	.25Ø	20mØ	40 †Δ				12p	FA	u8	
66	2N1288	75m	60.M		#J	15		5.0	50m	5.0u			100 †				3.0p	Δ	TO39	
67	2N1289	75m	60.M	1.2m	#S	20		15	50m	70uØ	1.0Ø	10mØ	70 †				3.0p	Δ	TO39	
68#	2T63	80m		2.0m	*	25			50m	10uØ	6.0	1.0m	32					A		
69#	2T67	80m		2.0m	*	25			20m	10uØ	6.0	1.0m	13				30p	A		
70	SYL1326	80m			ØJ	20		20	200m	10u	.30Ø	200mØ	20 †				30p	AΔ		
71#	2T64	80m	1.0M	1.5m	ØJ	25			50m	15u	1.0Ø	10mØ	100 †	250nb	28	1.2	30p	A		
72	GT905R	90m		1.8m	ØS		18			6.0uØ	4.5	1.0m	40				14p	§		
73	GT949R	90m		1.8m	ØS		12			6.0uØ	4.5	1.0m	120				14p			
74	2N646	100m		1.7m	#S	25	25	12	50m	14u	1.5Ø	30m	50 †Δ				40p		TO40	
75#	2T65	100m		2.0m	ØJ	25			50m	15u	6.0	1.0m	45				30p	A		
76#	2T66	100m		2.0m	ØJ	25			50m	15u	6.0	1.0m	25				30p	A		
77	TR03	100m			#S	20			200m	25u	.20Ø	1.0mØ	53							
78	TR05	100m			#S	20			200m	25u	.20Ø	1.0m	30					A		
79	TR07	100m				15			200m	25u	.20Ø	1.0m	40					A		
80#	TF70	100m	.25M	2.5m	*A	60			25m	150u	5.0	1.0mØ	10	5.0u	400	1.0		G		
81#	ASY53	100m	500kΔ	2.0m	ØJ	20	10	15	250m	10uØ	0.0	5.0mØ	15 †Δ					AΔ	R47a	
82	2N205	100m	.60M	1.5m	#	36		12	100m	4.0uØ	5.0	1.0m	25				40			
83	TR09	100m	.70M		#S	30			200m	25u	3.5Ø	1.0mØ	30					A		
84#	2T69	100m	1.0M	2.0m	#J	25		10	100m	10u	1.0Ø	10mØ	50 †	250nb	28	1.2	30p	A		
85	2N204	100m	1.2M	1.5m	#	36		12	100m	4.0uØ	5.0	1.0m	80				40			
86	TR182	100m	3.8M	2.0m	ØJ	25		15		3.0uØ	6.0Ø	1.0m	25			10		AB		
87	TR04	100m	4.0M		ØS	20			200m	25u	.20Ø	1.0mØ	30					A		
88	TR08	100m	4.0M		#S	20			200m	20u	3.5Ø	1.0mØ	30					A		
89	2N1779	100m	5.0M	1.3m	#	25		15	100m	10u	.75Ø	100m	40 †				15p	A	u1	
90	2N1781	100m	6.0M	1.3m	#	25		12	100m	20u	.25Ø	20m	60 †				15p	Δ	u1	
91#	ASY61	100m	6.0M	2.0m	ØJ	30	12	20	250m	10uØ	0.0	100mØ	40 †Δ					AΔ	R47a	
92	TR183	100m	7.5M	2.0m	ØJ	25		15		3.0uØ	6.0Ø	1.0m	40			10		AB		
93	2N1780	100m	8.0M	1.3m	#	25		15	100m	10u	.75Ø	100m	40 †				15p	AΔ	u1	
94	2N1783	100m	8.0M	1.3m	#	30		20	100m	300u	60Ø	.10m	60				14p	AΔ	u1	
95#	ASY72	100m	10M	2.0m	ØJ	20	6.0	15	250m	10uØ	4.5Ø	1.0mØ	60					AΔ	R47a	
96	2N1685	100m	12.M	1.3m	#	25		15	100m	10u	.75Ø	100m	60 †				15p	A	u1	
97#	ASY62	100m	14M§	2.0m	ØJ	20	15	20	250m	10uØ	0.0	20mØ	50 †Δ					AØΔ	R47a	
98	TR184	100m	15M	2.0m	ØJ	25		15		3.0uØ	6.0Ø	1.0m	60				10p	AB		
99#	2SD25	110m	1.0M		ØJ	25	25 §	10	100m	14uØ	1.0Ø	50mØ	70 †					A	TO1	
100	2N28	120m	.50M		#A	30		20	80m	15u			32				17			
101	2N1622	120m	1.0M	2.0m	#S	90		20		7.0uØ	.25Ø	5.0m	40 †Δ	2.0uØb		15 Ø			TO5	
102	2N29	120m	2.0M	2.0m	#J	35		20	100m	15u	4.5	1.0m	49	140nb	35	1.3	8.5p	G		
103	GT1201	120m	3.0MΔ	2.0m	#S	75		20		25u	.25Ø	1.0mΔ	30 †	500nb	35	8.0	9.0p	A		
104	GT1202	120m	5.0MΔ	2.0m	#S	45		20		25u	.25Ø	1.0mΔ	30 †	500nb	35	11	9.0p	A		
105#	XA701	120m	5.0M		ØA	25		20	200m	8.0u	.20Ø	20mØ	40 †				17p	AΔ	RO7	
106	SYL1454	120m	7.0MΔ		#J	25		15	200m	6.0u	.20Ø	20mØ	110 †					Δ		
107#	XA702	120m	7.0M		#A	25		20	400m	8.0u	.20Ø	20mØ	50 †				17p	A	RO7	
108#	XA703	120m	13.M		#A	25		20	400m	8.0u	.20Ø	20mØ	70 †				17p	AΔ	RO7	
109	TR214	125m	.80M	2.5m	#J		10			200u			70				15p	A		
110#	2SD19	150m			#J	25		10	300m	12uØ	1.0Ø	20mØ	31 †					A	TO5	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

3. GERMANIUM NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1#	2SD20	150m			#J	25		10	300m	12uØ	1.0Ø	20mØ	50 †					A	TO5	
2#	2SD21	150m			#J	25		10	300m	12uØ	1.0Ø	20mØ	72 †					A	TO5	
3#	2SD22	150m			#J	25		10	300m	12uØ	1.0Ø	20mØ	97 †					A	TO5	
4#	2SD23	150m			#J	25		10	300m	12uØ	1.0Ø	20mØ	150 †					A	TO5	
5	GT2884	150m		2.5m	#J	9.0	6.0 Ø	9.0		50u	6.0Ø	1.0m	100				20p	FA	TO5	
6	GT2886	150m		2.5m	#J	9.0	6.0 Ø	9.0		50u	6.0Ø	1.0m	200				20p	FA	TO5	
7	GT2888	150m		2.5m	#J	9.0	6.0 Ø	7.0		50u	6.0Ø	1.0m	250				20p	FA	TO5	
8#	NKT774	150m		2.5m	#J	15	15 Ø	5.0	300m	15uØ	1.5	200m	25 †Δ						TO1	
9	SYL1380†	150m			ØJ	25			200m	32u								A	u1	
10	SYL1468	150m			#J	25		15	200m	10u	.75Ø	200mØ	60 †					Δ		
11	SYL1591	150m			ØJ			10	200m		.40Ø	1.0mΔ	25 †				30p	AΔ		
12	SYL1617	150m			#J	15		10		5.0u	.50Ø	1.0mΔ	110 †					AΔ		
13	SYL1750	150m			#J	40			100m		6.0Ø	1.0mØ	70		2.4k			A		
14	JAN2N2426	150m	25kt	2.0m	#J	40	25 §	10	100m	20u	6.0Ø	1.0mØ	125 Ø	50uØ	3.2		40pØ		TO5	
15	2N35/5	150m	800k	2.5m	ØJ	40			100m	50u	6.0Ø	1.0mØ	75	30u	2.5k	6.0		A	TO5	
16	GT364	150m	1.0M	2.0m	#S	30		2.0		10u	5.0Ø	1.0m	20	500nb	50	3.5	18p	A	TO5	
17	GT365	150m	1.0M	2.0m	#S	30		2.0		10u	5.0Ø	1.0m	40	500nb	50	3.5	18p	A	TO5	
18	GT366	150m	1.0M	2.0m	#S	30		2.0		10u	5.0Ø	1.0m	100	500nb	50	3.5	18p	A	TO5	
19#	NKT751	150m	1.5M	2.5m	#J	15	15 Ø	10	200m	50u	1.5Ø	50mØ	30 †Δ					A	R65	
20#	NKT752	150m	1.5M	2.5m	#J	15	15 Ø	10	100m	50u	4.5Ø	1.0mØ	30 †Δ					A	R65	
21#	NKT701	150m	2.0M	2.5m	#J	25			100m			1.0mØ	100					A	R65	
22#	NKT703	150m	2.0M	2.5m	#J	25	25 Ø	15	200m	50u	1.5Ø	50mØ	50 †Δ					A	R65	
23	204A	150m	2.5M		ØS	60			50m				29							
24#	2G339A	150m	5.0M§	2.3m	#J	10		3.0	300m	10u	1.0	50m	150				8.0p	A	TO5	
25	GT2768	150m	5.0M	2.5m	#J	40	10			25u	5.0Ø	1.0m	75				15p	FA	TO5	
26#	SFT259	150m	5.0M§	2.5m	#J	20	15	20	250m	5.0u	0.0	50mØ	20 †Δ					A	TO5	
27#	TK33C	150m	5.0M	3.0m	ØJ	30	12	20			4.5Ø	1.0mØ	40					AΔ	R47a	
28	GT2765	150m	6.0M	2.5m	#J	40	20			25u	5.0Ø	1.0m	30				15p	FA	TO5	
29	GT2906	150m	6.0M	2.5m	#J	20	15 §	15	300m	25u	.25Ø	300mØ	30 †				15p	FA	TO5	
30	GT2766	150m	8.0M	2.5m	#J	15	9.0			25u	5.0Ø	1.0m	23				15p	FA	TO5	
31	GT2767	150m	8.0M	2.5m	#J	40	15			25u	5.0Ø	1.0m	20				15p	FA	TO5	
32#	SFT260	150m	9.0M§	2.5m	#J	20	15	20	250m	5.0u	0.0	50mØ	25 †Δ					AΔ	TO5	
33#	2SC71	150m	10M	4.0m	ØJ	18	18 Ø	12	200m	7.0uØ	.50Ø	100mØ	100 †				14p	A	TO5	
34	SYL1327	150m	10.MΔ		#J	25		15	200m	10u	1.0Ø	50mØ	40 †				15p	Δ		
35	GT1079	150m	11M	2.0m	#S	20		20		25u	.25Ø	400mØ	40 †	500nb			14p	AΔ		
36#	SFT261	150m	13.M§	2.5m	#J	20	15	20	250m	5.0u	0.0	50mØ	30 †Δ					A	TO5	
37#	2SC72	150m	14M	4.0m	ØJ	18	18 Ø	12	200m	7.0uØ	.50Ø	100mØ	100 †				14p	A	TO5	
38	2N2426	150m	25M§Δ	2.5m	#S	40	25 §	20	200m	20u	6.0Ø	1.0mØ	35 Δ	50uØ	3.2kØ		40pØ		TO5	
39	2N2482	150m	600M§Δ	2.0m	#J	20	12	3.0	100m	100u	6.0Ø	2.0m	25 †Δ				4.5p	MEØ	TO18	
40	2N2699	150m	600M§	2.0m	#S	15	15 Ø	4.0	100m	100u	1.0Ø	50mØ	40 †Δ				3.5p	MD	TO18	
41	2N955†	150m	1.0G§	1.3m	#J	12	11	2.0	100m	5.0uØ	.50	30mØ	60 †				4.0p	ME	TO18	
42	2N955A†	150m	1.0G§	2.0m	#J	12		2.0	150m	5.0u	.50Ø	30mØ	50 †				6pØ	ME	TO18	
43	2N647/22	180m		3.0m	#J	25	25	12	50m	14u	1.0Ø	50mØ	70 †					A	TO22	
44	2N649/22	180m		3.0m	#J	20	18	2.5	50m	14uØ	1.0Ø	50mØ	65 †					A	TO22	
45	2N2354	180m		3.0m	#S	20	15 §	10	150m	50u	1.5Ø	35m	50 †Δ						TO22	
46	2N1102/5	180m	150k	3.5m	ØJ	40			100m	50u	1.5	35mØ	40					A	TO5	
47#	2T85	200m	1.0M	4.0m	*J	25			200m	15u	1.0	20m	57 †	270nb	28	1.1	60p	A		
48#	NKT753	200m	1.0M	3.0m		10		5.0	300m	40u	1.5	200m	90 †					A		
49#	ASY86†	200m*	2.0M§	5.0m	#J	16	12	12	500m	100u	0.0	10mØ	120 †Ø				100pØ	A	TO1	
50#	ASY88†	200m*	2.0M§	5.0m	#J	26	16	12	500m	100u	0.0	10mØ	120 †Ø				100pØ	A	TO1	
51#	AC157†	200m*	2.5M§	4.0m	#J	26	16	6.0	500m	100u	1.0Ø	125mØ	80 †				100pØ	A	TO1	
52#	AC168†	200m*	2.5M§	4.0m	#J	32	20	6.0	500m	100u	1.0Ø	125mØ	80 †				100pØ	A	TO1	
53#	ASY87†	200m*	4.0M§	5.0m	#J	16	12	12	500m	100u	0.0	10mØ	295 †Ø				100pØ	A	TO1	
54#	ASY89†	200m*	4.0M§	5.0m	#J	26	16	12	500m	100u	0.0	10mØ	295 †Ø				100pØ	A	TO1	
55#	2SD100	250m				32	32 §	12	400m		1.0Ø	150mØ	75 †					A	RO10	
56#	2SD193	250m			ØJ	35		12	400m	500u	1.0Ø	150mØ	100 †					A •	TO9	
57#	2SD100A	250m	1.5M			45	45 §	12	400m	40uØ	1.0Ø	150mØ	75 †					A	R10	
58	2N1173	250m	6.0M	3.3m	#J	35		35	200m	10uØ	10Ø	500uØ	80	190nb	56	7.0	20p	AØ	TO29	
59	HA5020	300m	4.0M	2.2m	ØS	20		20	200m	5.0uØ	5.0	1.0m	49				15p	A		
60	HA5022	300m	4.0M	2.2m	ØS	25		25	200m	4.0uØ	5.0	1.0m	49				15p	A		
61	HA5024	300m	4.0M	6.6m	ØJ	20		20	200m	5.0uØ	5.0	1.0m	49				15p	AΔ		
62	HA5021	300m	5.0M	2.2m	*A	20		20	200m	10uØ	5.0	1.0m	49				15p	A		
63	HA5025	300m	6.0M	6.6m	ØJ	20		20	200m	5.0uØ	5.0	1.0m	49				15p	AΔ		
64	HA5023	300m	8.0M	2.2m	ØS	20					5.0	1.0m	49					A		
65	HA5026	300m	8.0M	6.6m	ØJ	20		20	200m	5.0uØ	5.0	1.0m	49				15p	AΔ		
66	2N1585	300m	400M	4.0m	#J	25		2.0	100m	100u	10Ø	10mØ	20 †				1.8p	ME	TO5	
67	HA5002	400m	1.0M	9.9	ØJ	20		20	200m	20uØ	5.0	1.0m	40					A		
68	HA5005	400m	1.0M	9.9	ØJ	10		10	200m	30uØ	5.0	1.0m	20				20p	A		
69	HA5012	400m	1.0M	9.9	ØJ	20		20	200m	20uØ	5.0	1.0m	40					A		
70	HA5016	400m	1.0M	9.9m	ØJ	30		30	200m	5.0uØ	5.0	1.0m	40					A		
71	HA5003	400m	1.5M	9.9	ØJ	30		20	200m	15uØ	5.0	1.0m	50					A		
72	HA5011	400m	1.5M	9.9	ØJ	40		30	200m	20uØ	5.0	1.0	50					A		
73	HA5014	400m	2.3M	9.9	ØJ	40		30	200m	20uØ	5.0	1.0m	80				40p	A		
74	HA5001	400m	2.5M	9.9	ØJ	30		20	200m	10uØ	5.0	1.0m	60				20p	A		
75	HA5009	400m	2.5M	9.9	ØJ	10		10	200m	30uØ	5.0	1.0m	15				40p	A		
76	2N2568	1.0 Ø	1.4G§Δ	12m	#S	32	15	1.0	100m		5.0Ø	40mØ	10 †Δ				3.0pØ		MT54	

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	MF3304†		700M§Δ			18	12	5.0		.01u#Ø	1.0	50mØ	20 †Δ				2.5pØ		TO72	
2	CK790	2.0m	.40M		$A	45			50m	.20uØ			14				30			
3	CK793	2.0m	.50M		$A	30			50m	.20uØ			16				30			
4	CK791	2.0m	.60M		$A	30			50m	.20uØ			24				30			
5#	BFZ10	50m$	3.5M§		$J	15			10m				30					AD		
6	2N1264/13	50m	300M	1.0mØ	J	20		.10	10m	50uØ	9.0Ø	1.0m	25				4.0p	D	TO13	
7	D30A1	90m		1.2m	#J	18	18	4.0		.02u	5.0Ø	10mØ	30 †#Δ				6pØ	PEΔ	u40b	
8	D30A2	90m		1.2m	#J	18	18	4.0		.02u	5.0Ø	10mØ	60 †#Δ				6pØ	PEΔ	u40b	
9	D30A3	90m		1.2m	#J	18	18	4.0		.02u	5.0Ø	10mØ	140 †#Δ				6pØ	PEΔ	u40b	
10	SNT204	100m		769u	$J	6.0	6.0	2.0		.20uØ	2.5Ø	.50mØ	50 Δ		40 Ø			PL	u17	
11	2N1135	100m	5.6M§	909u	$S	12	12	12	50m									Δ	TO5	
12	2N1135A	100m	5.6M§	909u	$S	12	12	12	50m									Δ	TO5	
13	2N1606†	100m	7.2M§Δ	909u	$S	10	10 Ø	10	50m	.10u	.50Ø	15mØ	6.0 †Δ						TO5	
14	2N1607†	100m	10M§Δ	909u	$S	10	10 Ø	10	50m	.10u	.50Ø	15mØ	6.0 †Δ						TO5	
15	2N1428	100m	23M*	833u	$J	6.0	6.0		50m	100n	.50Ø	5.0mØ	30 †	1.7ub	35		7.0p	AØ	TO1	
16	2N1608†	100m	25M§Δ	909u	$S	10	10 Ø	10	50m	.10u	.50Ø	15mØ	6.0 †Δ						TO5	
17	2N1132/TNT	100m	96MΔ	4.0m	$J	50	35	5.0		1.0u	10Ø	500uØ	30 †#Δ	1.0uØb	35 Ø	8.0pØ	45pØ	D	u17	
18	2N2303/TNT	100m	96.MΔ	556u		50	35	5.0		1.0uØ	10Ø	150mØ	75 †#Δ				45pØ	D	u17	
19	2N2904/TNT	100m	96.MΔ	556u		50	35	5.0		1.0uØ	10Ø	150mØ	75 †#Δ				45pØ	D	u17	
20#	SA495	150m			$J	25	25 Ø		50m	1.0u	6.0Ø	1.0mØ	9.0 Δ	2.5ub	90		12pØ	AΔ	TO1	
21#	SA495A	150m			$S	25	25 Ø		50m	1.0u	6.0Ø	1.0m	15 Δ	2.5ub	90		12pØ	AΔ	TO1	
22#	SA496	150m			$J	10	10		50m	100n	.50Ø	15mØ	6.0 †Δ	4.0ub	100		12pØ	AΔ	TO1	
23#	SA496A	150m			$J	10	10		50m	100n	.50Ø	15mØ	6.0 †Δ	4.0ub	100		12pØ	AΔ	TO1	
24#	SA496B	150m			$J	10	10		50m	100n	6.0Ø	1.0mØ	10 Δ	4.0ub	100		12pØ	AΔ	TO1	
25#	SAC42BØ	150m			$J	25	25	25	50m	.05uØ							15pØ	A	TO1	
26#	S520	150m	1.0M	3.0m	$J	30			100m	.05uØ										
27	JAN2N1026A	150m	2.0MΔ	1.2m	$J	35	35	35	100m	25n	6.0	1.0m	36	1.4ub	35		7.0p	A		
28	NS6211Ø	150m	3.0M§Δ	1.1m	$A	30	25	25		5.0nØ	.50Ø	1.0mØ	30 †Δ				10pØ		X16	
29#	SA50	150m	4.0M§Δ		$S		20		50m	50nØ	3.0Ø	1.0m	45 Δ	b	90			A	TO1	
30#	SA51	150m	4.0M§Δ		$S		30		50m	100u	3.0Ø	1.0m	10 Δ	b	90			A	TO1	
31#	SA52	150m	4.0M§Δ		$S	30	30 Ø	30	50m	50uØ	3.0Ø	1.0mØ	20 †Δ				12pØ	A	TO1	
32#	SA52A	150m	4.0M§Δ		$S	30	30 Ø	30	50m	50u	3.0Ø	1.0mØ	45 †Δ				12pØ	A	TO1	
33#	SA52B	150m	4.0M§Δ		$S	30	30 Ø	30	50m	20uØ	3.0Ø	1.0mØ	20 †Δ				12pØ	A	TO1	
34#	SA70†	150m	4.0M§Δ		$J		40		50m	100u	3.0Ø	1.0m	20 Δ	b	90			AΔ	TO1	
35#	SAC44Ø	150m	4.0M§Δ		$S	5.0		5.0	50m	.05uØ	3.0Ø	1.0mØ	1.0 Δ					A	TO1	
36#	SSA43Ø	150m	4.0M§Δ		$S	20	10	20	50m	10nØ	3.0Ø	1.0m	10 †Δ					A	TO1	
37#	SSA43AØ	150m	4.0M§Δ		$J	20	10	20	50m	.01u	3.0Ø	1.0m	10 †Δ					A	TO1	
38#	SSA46Ø	150m	4.0M§Δ		$J	20	10	20	50m	.02uØ	3.0Ø	1.0m	7.0 †Δ					A	TO1	
39#	SSA48Ø	150m	4.0M§Δ		$S	20	10	20	50m	.05uØ	3.0Ø	1.0m	7.0 †Δ					A	TO1	
40	2N2181Ø	150m	6.0M§Δ	1.3m	$S	25	25	25	50m	.01uØ	.50Ø	5.0mØ	10 †Δ				12pØ		TO1	
41	2N2182Ø	150m	6.0M§Δ	1.3m	$S	25	25	25	50m	.01uØ	.50Ø	5.0mØ	10 †Δ				12pØ		TO1	
42	2N2183Ø	150m	6.0M§Δ	1.3m	$S	15	10	15	50m	.01uØ	.50Ø	5.0mØ	10 †Δ				12pØ		TO1	
43	2N2184Ø	150m	6.0M§Δ	1.3m	$S	15	10	15	50m	.01uØ	.50Ø	5.0mØ	10 †Δ				12pØ		TO1	
44	JAN2N496†	150m	7.2M§Δ		$S	10	10 Ø	5.0		100n	.50Ø	15mØ	6.0 Δ				12pØ		TO1	
45	JAN2N495	150m	8.0MΔ	1.0m	$S	25	25 #	10		1.0u	6.0	1.0m	9.0 Δ	2.5uØb	90 Ø		12pØ		TO1	
46	2N495/18	150m	8.0M*Δ	1.2m	$S	25	25 #	10	50m	1.0u	6.0	1.0m	15 Δ	35uØb	90 Ø	3.5 Ø	12pØ	S	TO18	
47#	SA53	150m	10M§Δ		$J		20		50m	50nØ	3.0Ø	1.0m	20 Δ	b	90			A	TO1	
48#	SA54	150m	10M§Δ		$J		15		50m	100u	3.0Ø	1.0m	20 Δ	b	90			A	TO1	
49#	SA55	150m	10M§Δ		$J		10		50m	100u	3.0Ø	1.0m	25 Δ	b	90			A	TO1	
50#	SA56	150m	10M§Δ		$J		5.0		50m	100u	3.0Ø	1.0m	10 Δ	b	90			A	TO1	
51#	SAC40Ø	150m	10M§Δ		$S		15	15	50m	.05uØ	3.0Ø	1.0mØ	2.5 Δ					A	TO1	
52#	SAC40AØ	150m	10M§Δ		$J		15	15	50m	.05uØ	3.0Ø	1.0mØ	1.5 Δ					A	TO1	
53#	SAC40BØ	150m	10M§Δ		$J		15	15	50m	.05uØ	3.0Ø	1.0mØ	1.5 Δ					A	TO1	
54#	SAC42Ø	150m	10M§Δ		$S	25	25	25	50m	.05uØ	3.0Ø	1.0mØ	2.5 Δ					A	TO1	
55#	SAC42AØ	150m	10M§Δ		$J	25	25	25	50m	.05uØ	3.0Ø	1.0mØ	1.5 Δ					A	TO1	
56	2N354	150m	15.M*	1.3m	$J		25		50m	.10uØ	6.0Ø	1.0mØ	18				7.0p	A		
57#	S500	150m	15.M	3.0m	$J	25			50m	.00uØ	6.0	1.0mØ	18				7.0p	A		
58#	S501	150m	25.M	3.0m	$J	10			50m	.00u	6.0	1.0mØ	18				7.0p	A		
59	2N496/18†	150m	28.M§Δ	1.3m	$S	10	10 #	10	50m	.10u	.50Ø	15mØ	15 †Δ				12pØ	S	TO18	
60	TMT1132	150m	50M§Δ	1.0m	§J	50	35 Ø	5.0		1.0uØ	10Ø	150mØ	30 †#Δ				45pØ	ME	TO51	
61	NS6062	150m	60.M§	1.2m	$J		10	4.0	100m	.01uØ	3.0Ø	.10mØ	45 Δ				5.0p	PLØ	X16	
62	NS6063	150m	60.M§	1.2m	$J		10	4.0	100m	.01uØ	3.0Ø	.10mØ	70 Δ				5.0p	PLØ	X16	
63	NS6064	150m	60.M§	1.2m	$J		10	4.0	100m	.01uØ	3.0Ø	.10mØ	115 Δ				5.0p	PLØ	X16	
64	NS6065	150m	60.M§	1.2m	$J		10	4.0	100m	.01uØ	3.0Ø	.10mØ	180 Δ				5.0p	PLØ	X16	
65	TMT1131	150m	60M§Δ	1.0m	§J	50	35 Ø	5.0		1.0uØ	10Ø	150mØ	20 †#Δ				45pØ	ME	TO51	
66	2N1132/TPT	150m	96MΔ	833u		50	35	5.0		1.0u	10Ø	500uØ	30 †#Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	D	X31	
67	2N2303/51	150m	96.MΔ	833u		50	35	5.0		1.0uØ	10Ø	150mØ	75 †#Δ				45pØ	D	TO51	
68	2N2303/TPT	150m	96.MΔ	833u		50	35	5.0		1.0uØ	10Ø	150mØ	75 †#Δ				45pØ	D	X31	
69	MCS2137	150m	100M§Δ	1.5m	♦J	60	60	5.0	50m	.02uØ	5.0Ø	1.0mØ	100 Δ	60uØ	15 Ø	25 Ø	3.0p	EAΔØ	X38	
70	MCS2138	150m	100M§Δ	1.5m	♦J	60	60	5.0	50m	.02uØ	5.0Ø	1.0mØ	300 Δ	60uØ	40 Ø	25 Ø	3.0p	EAΔØ	X38	
71	2N2904/TPT	150m	200M§Δ	3.4m	♥S	60	40	5.0	600m	10u	10Ø	150mØ	40 †Δ				8pØ	E	X31	
72	FK3962	175m	40M§Δ	1.0m	§J	60	60	6.0		10n§Ø	5.0Ø	10mØ	280 †#	19u	8.0k	10 Ø	6.0pØ	DPLØ	u17a	
73	FV3962	175m	40M§Δ	1.0m	§J	60	60	6.0		10n§Ø	5.0Ø	10mØ	280 †#	19u	8.0k	10 Ø	6.0pØ	DPLØ	u5a	
74	FK3964	175m	50M§Δ	1.0m	§J	45	45	6.0		10n§Ø	5.0Ø	10mØ	330 †#	25u	10k	10 Ø	6.0pØ	DPLØ	u17a	
75	FV3964	175m	50M§Δ	1.0m	§J	45	45	6.0		10n§Ø	5.0Ø	10mØ	330 †#	25u	10k	10 Ø	6.0pØ	DPLØ	u5a	
76	FK3502†	175m	150M§Δ	1.0m	§J	45	45	5.0	500m	10n§Ø	10Ø	10mØ	270 †#				8.0pØ	DPE	u17b	
77	FK3503†	175m	150M§Δ	1.0m	§J	60	60	5.0	500m	10n§Ø	10Ø	10mØ	270 †#				8.0pØ	DPE	u17b	
78	FV3502†	175m	150M§Δ	1.0m	§J	45	45	5.0	500m	10n§Ø	10Ø	10mØ	270 †#				8.0pØ	DPE	u5b	
79	FV3503†	175m	150M§Δ	1.0m	§J	60	60	5.0	500m	10n§Ø	10Ø	10mØ	270 †#				8.0pØ	DPE	u5b	
80	FK2894†	175m	350M§Δ	1.0m	§J	12	12	4.0		10u†Ø	.50Ø	30mØ	75 †#				6.0pØ	DPE	u17b	E
81	FV2894†	175m	350M§Δ	1.0m	§J	12	12	4.0		10u†Ø	.50Ø	30mØ	75 †#				6.0pØ	DPE	u5b	A
82#	BC250	200m		2.0m	♦J	20	20	5.0	100m	100nØ	1.0Ø	1.0mØ	35 †Δ					PEØ	X64	A
83#	BC251	200m		2.0m	♦J	45	45	5.0	100m	50n	5.0Ø	2.0mØ	125 Δ*					PEØ	X64	A
84#	BC252	200m		2.0m	♦J	20	20	5.0	100m	50n	5.0Ø	2.0mØ	125 Δ*					PEØ	X64	A
85#	BC253	200m		2.0m	♦J	20	20	5.0	100m	50n	5.0Ø	2.0mØ	125 Δ*					PEØ	X64	A
86#	OC430	200m*	.60M	1.9m	$J	10	10	10	50m	.40uØ	5.0Ø	1.0m	15	20u	900	4.0	30pØ	AØ	R41	
87#	OC430K	200m*	.60M	2.4m	$J	10	10	10	50m	.40uØ	5.0Ø	1.0m	15	20u	900	4.0	30pØ	AØ	R43	
88#	OC440	200m*	.60M	1.9m	$J	30	30	10	50m	.40uØ	5.0Ø	1.0m	15	20u	900	4.0	30pØ	AØ	R41	
89#	OC445	200m*	.60M	1.9m	$J	50	50	10	50m	.40uØ	5.0Ø	1.0m	15	20u	900	4.0	30pØ	AØ	R41	
90#	OC450	200m*	.80M	1.9m	$J	75	75	10	50m	.40uØ	5.0Ø	1.0m	15	20u	1.1k	4.0	30pØ	AØ	R41	
91#	OC443	200m*	1.0M	1.9m	$J	25	25	20	50m	.10uØ	5.0Ø	1.0m	25	25u	1.3k	5.0	30pØ	A	R41	
92#	OC449	200m*	1.0M	1.9m	$J	60	60	30	50m	.50uØ	5.0Ø	1.0m	25	25u	1.3k	6.0	30pØ	AØ	R41	
93#	OC465	200m*	1.0M	1.9m	$J	20	20	10	50m	.40uØ	5.0Ø	1.0m	25	25u	1.3k	5.0	30pØ	AØ	R41	
94#	OC469	200m*	1.0M	1.9m	$J	32	32	10	50m	.40uØ	2.0Ø	20mØ	20 †				30pØ	A	R41	
95#	OC460	200m*	1.2M	1.9m	$J	10	10	10	50m	.40uØ	5.0Ø	1.0m	30	25u	1.5k	6.0	30pØ	AØ	R41	
96#	OC466	200m*	1.2M	1.9m	$J	10	10	10	50m	.40uØ	5.0Ø	1.0m	30	25u	1.5k	5.0	30pØ	AØ	R41	
97#	OC470	200m*	1.2M	1.9m	$J	30	30	10	50m	.40uØ	5.0Ø	1.0m	30	25u	1.7k	6.0	30pØ	AØ	R41	
98#	OC467	200m*	1.5M	1.9m	$J	25	25	20	50m	.10uØ	5.0Ø	1.0m	30	25u	1.5k	7.0	30pØ	A	R41	
99	2N260	200m	1.8M	1.5m	$	10			50m	1nØ	6.0	1.0mØ	16				21p	A		
100	2N260A	200m	1.8M	1.5m	$	30			50m	1nØ	6.0	1.0mØ	16				21p	A		
101	2N261	200m	1.8M	1.5m	$	75			50m	1nØ	6.0	1.0mØ	10				21p	A		
102#	OC468	200m*	2.5M	1.9m	$J	10	10	10	50m	.40uØ	5.0Ø	1.0m	60	40u	2.5k	7.0	30pØ	AØ	R41	
103	2N262	200m	6.0M	1.5m	$	10			50m	1nØ	6.0	1.0mØ	20				21p	A		
104	2N262A	200m	6.0M	1.5m	$	30			50m	1nØ	6.0	1.0mØ	20				21p	A		
105	DZ9A4	200m	340M§	2.6m	#J	25	25	4.0		100nØ	4.5Ø	50mØ	90 †#Ø				8.0p$	PEØ	TO98	B
106	DZ9A5	200m	340M§	2.6m	#J	25	25	4.0		100nØ	4.5Ø	50mØ	225 †#				8.0p$	PEØ	TO98	B
107#	BSW81†	200m	400M§Δ	2.0m	♦J	12	12	4.0		80nØ	.50Ø	30mØ	70 †#				6.0pØ	PE†	X64	A
108	2N4973	200m	800M§Δ	2.0m	♦S	20	15	3.0	30m	25nØ	1.0Ø	3.0mØ	20 †Δ				2.0p$	Ø	TO106	A
109	RT2461	200m	1.0G§Δ	1.2m	§J	20	15	5.0		.01uØ	1.0Ø	3.0mØ	20 Δ				3pØ	PEØ	RO38	
110	RT2463	200m	1.2G§Δ	1.2m	§J	15	10	5.0		.01uØ	6.0Ø	2.0mØ	20 Δ				.70pØ	PEØ	RO38	

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	A758A	220m	130M§	2.0m	§J			25	5.0	100m		5.0Ø	2.0mØ	180 †					PL†	MM10	A	
2	A758B	220m	130M§	2.0m	§J			25	5.0	100m		5.0Ø	2.0mØ	290 †					PL†	MM10	A	
3	A759A	220m	130M§	2.0m	§J			20	5.0	100m		5.0Ø	2.0mØ	180 †					PLØ	MM10	A	
4	A759B	220m	130M§	2.0m	§J			20	5.0	100m		5.0Ø	2.0mØ	290 †					PLØ	MM10	A	
5#	OC480	240m		1.9m	§J	125	125			50m	2.0u	5.0Ø	1.0m	15	25u	1.1k	6.0	40p	A	R41		
6	2N2709	240m	.20MΔ	1.8m	§S	50	35	20	50m	50m	1.0uØ	1.0Ø	.20mØ	10 †Δ	85u	3.0k		110pØ		TO5		
7#	OC463	240m	5.0M	1.9m	§J	10	10			50m	2.0u	5.0Ø	1.0m	30	100u	1.8k		25p	A	R41		
8	2N258	250m		2.0m	§S	30	30	22	50m	50u	6.0	1.0m	15 Δ	b	50			40p				
9	2N259	250m		2.0m	§S	30	30	22	50m	50u	6.0	1.0m	32 Δ	b	50			40p				
10#	BCY49	250m		2.0m	§J	15	15	15	20m	.10uØ	6.0Ø	1.0mØ	25 Δ						AΔ	TO5		
11	2N3586Ø	250m	.10M§Δ	1.4m	§S	45		45	100m	3.0uØ	6.0Ø	1.0mØ	1.0 Δ					18pØ		X37		
12	C101	250m	400k	1.8m	§A	30		30	50m	100n	.50Ø	100uΔ	9.0 †	b	35			50p	BΔ	TO5		
13#	OC440K	250m*	.60M	2.4m	§J	30	30	10	50m	.40uØ	5.0Ø	1.0m	15	20u	900	4.0		30pØ	AØ	R43		
14#	OC445K	250m*	.60M	2.4m	§J	50	50	10	50m	.40uØ	5.0Ø	1.0m	15	20u	900	4.0		30pØ	AØ	R43		
15	C112	250m	700k	1.8m	§A	25		20	50m	1.0n	.50Ø	100uΔ	16 †	b	35			50p	BΔ			
16	C102	250m	800k	1.8m	§A	30		30	50m	100n	.50Ø	100uΔ	13 †	b	35			50p	BΔ	TO5		
17#	OC450K	250m*	.80M	2.4m	§J	75	75	10	50m	.40uØ	5.0Ø	1.0m	15	20u	1.1k	4.0		30pØ	AØ	R43		
18	*C118*	*250m*	*1.0M*	1.8m	§J	12	6.0	6.0	50m	1.0nØ	3.0Ø	10uØ	15 †		10k			50p	A	TO5		
19	C119	250m	1.0M	1.8m	§J	12	6.0	6.0	50m	1.0nØ	3.0Ø	10uØ	25 †		10k			50p	A	TO5		
20#	OC443K	250m*	1.0M	2.4m	§J	25	25	20	50m	.10uØ	5.0Ø	1.0m	25	25u	1.3k	5.0		30pØ	A	R43		
21#	OC449K	250m*	1.0M	2.4m	§J	60	60	30	50m	.50uØ	5.0Ø	1.0m	25	25u	1.3k	6.0		30pØ	AØ	R43		
22#	OC465K	250m*	1.0M	2.4m	§J	20	20	10	50m	.40uØ	5.0Ø	1.0m	25	25u	1.3k	5.0		30pØ	AØ	R43		
23#	OC469K	250m*	1.0M	2.4m	§J	32	32	10	50m	.40uØ	2.0Ø	20mØ	20 †					30pØ	A	R43		
24#	OC460K	250m*	1.2M	2.4m	§J	10	10	10	50m	.40uØ	5.0Ø	1.0m	30	25u	1.5k	6.0		30pØ	AØ	R43		
25#	OC466K	250m*	1.2M	2.4m	§J	10	10	10	50m	.40uØ	5.0Ø	1.0m	30	25u	1.5k	5.0		30pØ	AØ	R43		
26#	OC470K	250m*	1.2M	2.4m	§J	30	30	10	50m	.40uØ	5.0Ø	1.0m	30	25u	1.7k	6.0		30pØ	AØ	R43		
27#	OC467K	250m*	1.5M	2.4m	§J	25	25	20	50m	.10uØ	5.0Ø	1.0m	30	25u	1.5k	7.0		30pØ	AØ	R43		
28#	OC468K	250m*	2.5M	2.4m	§J	10	10	10	50m	.40uØ	5.0Ø	1.0m	60	40u	2.5k	7.0		30pØ	AØ	R43		
29	2N4284	250m	7.0M§Δ	2.0m	§S	25	25	25	50m	100nØ	5.0	1.0m	600 Ø	1.2uØb	40 Ø	10		10pØ		u29		
30	2N4285	250m	7.0M§Δ	2.0m	§S	35	35	35	50m	10nØ	5.0	1.0m	600 Ø	1.2uØb	40 Ø	10		10pØ		u29		
31	SL200	250m	10.M§	2.0m	§S	25	25	25		.10uØ	5.0Ø	10mØ	50 †					10pØ	PE	u29		
32	HA9054†	250m	25MΔ	1.8m	§A	15		5.0		200nØ	10	2.0m	25	b	30 Ø			10pØ	ME	TO18		
33	HA9056†	250m	25MΔ	1.8m	§A	30		5.0		200nØ	10	2.0m	25	b	30 Ø			10pØ	ME	TO18		
34	HA9058†	250m	25MΔ	1.8m	§A	50		5.0		200nØ	10	2.0m	25	b	30 Ø			10pØ	ME	TO18		
35	HA9055†	250m	40MΔ	1.8m	§A	15		5.0		200nØ	10	2.0m	55	b	30 Ø			10pØ	ME	TO18		
36	HA9057†	250m	40MΔ	1.8m	§A	30		5.0		200nØ	10	2.0m	55	b	30 Ø			10pØ	ME	TO18		
37	HA9059†	250m	40MΔ	1.8m	§A	50		5.0		200nØ	10	2.0m	55	b	30 Ø			10pØ	ME	TO18		
38	HA7206	250m	45M	2.0m	§A	70		4.0		250nØ	10	2.0m	10	300nb	20		600m	3.0p	ME†	TO18		
39	HA7207	250m	55M	2.0m	§A	70		4.0		250nØ	10	2.0m	10	300nb	20		600m	3.0p	ME†	TO18		
40	MT1131	250m	80.M§	1.7m	§J	50		5.0		1.0u	10Ø	150mØ	35 †					35p	ME	u13		
41	MT1131A	250m	80M§	1.6m	§J	60		5.0		500n	10Ø	150mØ	20 †Δ	1.0ub	30		8.0	30p	PE	u13		
42	MT1132	250m	80.M§	1.7m	§J	50		5.0		1.0u	10Ø	150mØ	60 †					35p	ME	u13		
43	MT1132A	250m	80.M§	1.7m	§J	60		5.0		.50u	10Ø	150mØ	60 †					35p	ME	u13		
44	MT1132B	250m	80.M§	1.7m	§J	70		5.0		.01u	10Ø	150mØ	60 †					35p	PL	u13		
45	MT1420	250m	80.M	1.7m		60	30 §	5.0		1.0u	10Ø	150mØ	150					20p	P	u13		
46	MT1991	250m	80.M§	1.7m	§J	30		5.0		5.0u	10Ø	150mØ	15 †Δ					45p	PE	u13		
47	MT2303	250m	80.M§	1.7m	§J	50		5.0		1.0u	10Ø	150mØ	75 †Δ					45pØ	PE	u13		
48	MT1254	250m	100M§	1.7m	§J	30		5.0		.20u	1.0Ø	10mØ	35 †					10p	ME	u13		
49	MT1255	250m	100M§	1.7m	§J	30		5.0		.20u	1.0Ø	10mØ	60 †					10p	ME	u13		
50	MT1256	250m	100M§	1.7m	§J	40		5.0		.20u	1.0Ø	10mØ	35 †					10p	ME	u13		
51	MT1257	250m	100M§	1.7m	§J	40		5.0		.20u	1.0Ø	10mØ	60 †					10p	ME	u13		
52	MT1258	250m	100M§	1.7m	§J	30		5.0		.20u	1.0Ø	10mØ	110 †					10p	ME	u13		
53	MT1259	250m	100M§	1.7m	§J	50		5.0		.20u	1.0Ø	10mØ	65					10p	ME	u13		
54	USAF515ES045M†	250m	100M§Δ	1.4m	§J	40	25	5.0	100m	10nØ	10Ø	10mØ	30 Δ	1.0uØb	32 Ø		20 Ø	8.0pØ	PE*	X34		
55	USAF515ES046M†	250m	100M§Δ	1.4m	§J	40	25	5.0	100m	10nØ	10Ø	10 Ø	30 Δ	1.0uØb	32 Ø		20 Ø	8.0pØ	PE*	X34		
56	MT869	250m	160M§	1.7m	§J	25		5.0		.01uØ	5.0Ø	10mØ	20 †Δ					9.0p	PE	u13		
57	MT995	250m	160M§	1.7m	§J	20		4.0		.00u	1.0Ø	20mØ	35 †Δ					10pØ	PE	u13		
58	MT726	250m	180M§	1.7m	§J	25		5.0	50m		1.0Ø	10mØ	15 †Δ					5.0p	PE	u13		
59	MT2411	250m	200M§	1.7m	§J	25		5.0	100m	.01u	.50Ø	10mØ	20 †Δ					3.7p	PE	u13		
60	MT2412	250m	200M§	1.7m	§J	25		5.0	100m	.01u	.50Ø	10mØ	40 †Δ					3.7p	PE	u13		
61	HA9048	275m	25M	1.8m	§J	25	25	5.0	100m	200nØ	1.0Ø	10mØ	20 †	350nb	15		4.0	8.0p	ME	TO5		
62	HA9049	275m	25M	1.8m	§J	25	25	5.0	100m	200nØ	1.0Ø	10mØ	60 †	350nb	15		4.0	8.0p	ME	TO5		
63	HA9078	275m	25M	1.8m	§A	25		5.0		300n	1.0	10m	20 †	350nb	15		4.0	8.0p	ME	TO18		
64	HA9079	275m	25M	1.8m	§A	25		5.0		200n	1.0	10m	60 †	350nb	15		4.0	8.0p	ME	TO18		
65#	2S021	300m			§A	80		40			10Ø	10mØ	25 †						A			
66#	BC261	300m		2.0m	§J	45	45	5.0	100m	50n	5.0Ø	2.0mØ	125 Δ*						PEØ	R64b	AØ	
67#	BC262	300m		2.0m	§J	20	20	5.0	100m	50n	5.0Ø	2.0mØ	125 Δ*						PEØ	R64b	AØ	
68#	BC263	300m		2.0m	§J	20	20	5.0	100m	50n	5.0Ø	2.0mØ	125 Δ*						PEØ	R64b	AØ	
69	NS1863	300m		1.7m	§J	30	30	20		1.0uØ	6.0Ø	1.0mØ	50 Δ						DE	TO46	AØ	
70	NS1864	300m		1.7m	§J	50	50	35		1.0uØ	6.0Ø	1.0mØ	50 Ø						DE	TO46		
71#	2S022	300m	.30MΔ		§A	40		30			10Ø	10mØ	33 †						A			
72#	2S023	300m	.80MΔ		§A	40		30			10Ø	10mØ	60 †						A			
73	ST8700	300m	30M§Δ	1.6m	§J	50	30	5.0		20nØ	5.0Ø	100uØ	40 †Δ	1.0uØb	32 Ø			10pØ	PEØ	TO18	Ø	
74#	ZT153	300m	30M§Δ	2.4m	§A	35	35	25	500m	.10u	6.0Ø	100m	35 †					5.0p	PE	TO18		
75#	ZT154	300m	30M§Δ	2.4m	§A	45	45	25	500m	.10u	6.0Ø	100m	50 †					5.0p	PE	TO18		
76	2N1132/51	300m	60M§Δ	2.0m	§J	50	35	5.0	600m	1.0uØ	10Ø	150mØ	30 †#Δ	1.0uØb	35 Ø	8.0pØ		45pØ	PE	TO51	AØ	
77	2N1132B/51†	300m	60M§Δ	1.6m	§J	70	45	6.0	600m	10nØ	10Ø	150mØ	30 †#Δ	1.0uØb	35 Ø	8.0 Ø		30pØ	PE	TO51	AØ	
78	2N2927/51	300m	100M§Δ	1.7m	§J	25	25	4.0	500m	.02uØ	1.0Ø	50mØ	30 †Δ	1.2mØ	1.5kØ		26 Ø	20pØ	PE	TO51		
79	A170	300m	100M§	2.0m	§J	40	20	5.0	100m		5.0Ø	2.0mØ	40 †Δ					5.0p†	PL	TO18	AØ	
80	HA9531	300m	100M	2.0m	§J	50		5.0		1.0u	10Ø	150mØ	25 †					35p	ME	TO18		
81	HA9531A	300m	100M	2.0m	§J	60		5.0		500n	10Ø	150mØ	25 †	1.0ub	30		8.0	30p	ME	TO18		
82	HA9532	300m	100M	2.0m	§J	50		5.0		1.0u	10Ø	150mØ	40 †					35p	ME	TO18		
83	HA9532A	300m	100M	2.0m	§J	60		5.0		500n	10Ø	150mØ	40 †	1.0ub	30		8.0	30p	ME	TO18		
84	2N2800/51†	300m	120M§Δ	1.7m	§J	50	35	5.0	800m	.10u	10Ø	150mØ	30 †Δ					25p	E	TO51		
85	2N2801/51†	300m	120M§Δ	1.7m	§J	50	35	5.0		.10u	10Ø	150mØ	75 †Δ					25p	E	TO51		
86	A171	300m	130M§	2.0m	§J	30	20	5.0	100m		5.0Ø	2.0mØ	100 †Δ					5.0p†	PL	TO18	AØ	
87	2N3081/51	300m	150M§Δ	1.7m	§J	70	50	6.0	600m	.01uØ	10Ø	150mØ	30 †Δ					13pØ	PE	TO51	A	
88	2N3451†	300m	300M§Δ	1.7m	§J	6.0	6.0 Ø	4.0		10nØ	.30Ø	10mØ	30 †					5.5pØ	PE	TO18	Ø	
89	MPS2894†	300m	400M§Δ	3.0m	♦J	12	12	4.0		80nØ	.30Ø	1.0mØ	25 †#Δ					6.0pØ	E	X20b		
90#	V405†	300m	400M§Δ	2.0m	§J	10	10	3.0	200m	.10uØ	.50Ø	30mØ	20 †Δ					6.5pØ	PE	TO18	Ø	
91	RT2462†	300m	800M§Δ	1.7m	§J	15	10	5.0		.05uØ	.50Ø	10mØ	20 †Δ					3pØ	PE	TO18		
92#	OC742Ø	330m*Ø				25	25 Ø	25	50m	.05u										RO66		
93#	OC703	330m*	.50M	3.1m	§J	80	80	30	50m	.10uØ	6.0Ø	1.0mØ	15					20p	Ø	R42		
94#	OC703A	330m*	.50M	3.1m	§J	100	100	30	50m	.10uØ	6.0Ø	15m						20p	Ø	R42		
95#	OC701	330m*	1.0M	3.1m	§J	80	80	30	50m	.10uØ	6.0Ø	1.0m	35					20p	Ø	R42		
96#	OC700	330m*	1.7M	3.1m	§J	25	25	25	50m	.10uØ	6.0Ø	1.0m	30					20p	Ø	R42		
97#	OC700A	330m*	1.7M	3.1m	§J	25	25	25	50m	.10uØ	6.0Ø	1.0m	25					20p	Ø	R42		
98#	OC702	330m*	2.2M	3.1m	§J	25	25	25	50m	.10uØ	6.0Ø	1.0m	70					20p	Ø	R42		
99#	OC702A	330m*	2.2M	3.1m	§J	15	15	15	50m	.10uØ	6.0Ø	1.0m	70					20p	Ø	R42		
100#	OC702B	330m*	2.2M	3.1m	§J	10	10	10	50m	.10uØ	6.0Ø	1.0m	70					20p	Ø	R42		
101#	OC700B	330m*	3.5M	3.1m	§J	25	25	25	50m	.10uØ	6.0Ø	1.0m	30					20p	Ø	R42		
102#	OC704	330m*	5.0M	3.1m	§J	3.0	3.0	3.0	50m	.10uØ	2.0Ø	1.0m	70					20p	†	R42		
103	D29A6	330m	630M§Ø	3.3m	♦J	35	25	4.0	500m#	100n	10Ø	2.0mØ	200 Δ					8.0p§Ø	PE	TO98	B	
104	D29A7	330m	630M§Ø	3.3m	♦J	50	40	4.0	500m#	100n	10Ø	2.0mØ	32 Δ					8.0p§Ø	PE	TO98	B	
105	D29A8	330m	630M§Ø	3.3m	♦J	50	40	4.0	500m#	100n	10Ø	2.0mØ	80 Δ					8.0p§Ø	PE	TO98	B	
106	D29A9	330m	630M§Ø	3.3m	♦J	50	40	4.0	500m#	100n	10Ø	2.0mØ	200 Δ					8.0p§Ø	PEØ	TO98	B	
107	D29A10†	330m	630M§Ø	3.3m	♦J	60	60	5.0	500m#	50n	10Ø	2.0mØ	32 Δ					8.0p§Ø	PE	TO98	B	
108	D29A11†	330m	630M§Ø	3.3m	♦J	60	60	5.0	500m#	50n	10Ø	2.0mØ	80 Δ					8.0p§Ø	PE	TO98	B	

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L E A D	C O D E
1#	OC740Ø	333m*Ø		3.1m	$J	15	15 Ø	15	50m	.05u									RO66		
2	2N327	337m	.30M	2.5m	$J		40	20	50m	.00uØ	6.0	1.0m	14				30p	F			
3	2N328	337m	.35M	2.5m	$J		30	20	5.0m	.00uØ	6.0	1.0m	24				30p	F	TO5		
4	2N330	337m	.50M	2.5m	$J		20	20	50m	.00uØ	6.0	1.0m	30				15p	F			
5	2N329	337m	.60M	2.5m	$J		20	20	50m	.00uØ	6.0	1.0m	50				30p	F			
6#	BCY22	350m	500k	2.7m	$J	75	75	40	50m	20nØ	6.0Ø	1.0mØ	10 Δ	15u	600k	3.0	45p	AØ	TO5		
7	USAF518ES065M†	350m	30M§Δ	1.4m	§J		70	7.0	30m	10nØ	5.0Ø	1.0 Ø	155 Δ	1.0uØb	32 Ø	8.0 Ø	8.0pØ	PLD	X34		
8	JAN2N1196	350m	40M§	2.0m	§A	70	70	4.0	15m	250nØ	10	2.0m	10	300nb	20	600m	4.0pØ	MEØ	TO5		
9	USAF516ES047M†	350m	100M§Δ	1.4m	§J	35	20	4.0	100m	10nØ	10Ø	10 Ø	30 Δ	1.0uØb	32 Ø	20 Ø	8.0pØ	PLE	X34		
10	USAF516ES048M†	350m	100M§Δ	1.4m	§J	35	20	4.0	100m	10nØ	10Ø	10 Ø	30 Δ	1.0uØb	32 Ø	20 Ø	8.0pØ	PLE	X34		
11	PA1000	360m	60MΔ§	2.0m	§J	30	25	7.0		.01uØ	5.0Ø	1.0mØ	100 †#Δ				8.0p	PLØ	TO18		
12	2N995A†	360m	100M§Δ	2.0m	§J	20	15	4.0		5.0nØ	1.0Ø	20mØ	35 †#Δ				6.0pØ	PEΔ	TO18	Ø	
13	PA1001	360m	100M§	2.0m	§J	60	45	7.0		.01uØ	5.0Ø	1.0mØ	50 †#Δ				8pØ	PLØ	TO18		
14	FT1746	360m	150M§	2.0m	§J	35	30	4.0		5.0nØ	5.0Ø	10mØ	20 †Δ				9.0pØ	PEΔ	TO18		Ø
15	GME0404	360m	150M§Δ	3.6m	♦J	25	25	4.0		.10uØ	5.0Ø	50mØ	30 †Δ				12pØ	PEΔ	X45		
16	PET0404	360m	150M			25	25	4.0	500m	.10uØ	5.0Ø	50mØ	100 †	70u	190		12p	PE	TO18		
17	GME0404-1	360m	200M§Δ	3.6m	♦J	40	30	5.0		50u§Ø	1.0Ø	10mØ	20 †Δ				12pØ	PEΔ	X45		
18	GME0404-2	360m	200M§Δ	3.6m	♦J	40	30	5.0		50n§Ø	1.0Ø	10mØ	40 †Δ				12pØ	PEΔ	X45		
19#	ME501Ø	360m	200MΔ	2.9m	§J	25		12	500m	.10uØ	1.0Ø	50mØ	10 †#Δ				13pØ	PE†Δ	TO106	A	
20	PET0404-1	360m	200M			40	30 Ø	5.0	500m		1.0Ø	50mØ	100	70u	190		12p	PE			
21	PET0404-2	360m	200M			40	30 Ø	5.0	500m		1.0Ø	50mØ	175	70u	190		12p	PE	TO18		
22	2N4423†	360m	400M§Δ	2.8m	§S	12	12	4.0	200m	80n§	.50Ø	30mØ	40 †Δ#				6.0p$Ø		X55	A	
23	MM2894†	360m	400M§Δ	2.1m	§J	15	12	4.5		.08uØ	.50Ø	30mØ	70 †#				6pØ	E	RO38w		
24	RT2459†	360m	700M§Δ	2.0m	§J	60	60	5.0			.40Ø	10mØ	100 †Δ	35u	7.0k	20 Ø	4.5pØ	PEØ	TO18		
25	RT2460	360m	1.0G§	2.0m	§J	40	40	5.0			5.0Ø	1.0mØ	60 †Δ	1.0uØb	29	10 Ø	6.0pØ	PEØ	TO18		
26	HA7597	385m	1.0M	2.9m	§J	50	40	20	50m	.10u	.50	1.0mΔ	14	35u			95p	AØ	X3		
27	HA7598	385m	1.0M	2.9m	§J	50	35	20	50m	.10u	.50	1.0mΔ	25	40u			95p	AØ	X3		
28	HA7599	385m	1.0M	2.9m	§J	50	30	20	50m	.10u	.50	1.0mΔ	50	50u			95p	AØ	X3		
29	2N2551	400m			§S	150	150	150		.10uØ	5.0Ø	100mØ	15 †Δ#					AØ	TO5	A	
30	2N3413	400m		3.3m	§S	150	150	150		100nØ	5.0Ø	50mØ	10 †Δ				150pØ	Ø	TO5	A	
31	CD91*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	50 †Δ					E*	L17a		
32	CD92*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	50 †Δ					E*	L17a		
33	CD93*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	50 †Δ					E*	L17a		
34	CD94*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	50 †Δ					E*	L17a		
35	CD95*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	100 †Δ					E*	L17a		
36	CD96*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	100 †Δ					E*	L17a		
37	CD97*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	100 †Δ					E*	L17a		
38	CD98*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	100 †Δ					E*	L17a		
39	CD912*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	50 †Δ					E*	TO46	AØ	
40	CD922*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	50 †Δ					E*	TO46	AØ	
41	CD932*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	50 †Δ					E*	TO46	AØ	
42	CD942*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	50 †Δ					E*	TO46	AØ	
43	CD952*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	100 †Δ					E*	TO46	AØ	
44	CD962*	400m		2.2m	§J	30	30	10	50m	10nØ	10Ø	1.0uΔ	100 †Δ					E*	TO46	AØ	
45	CD972*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	100 †Δ					E*	TO46	AØ	
46	CD982*	400m		2.2m	§J	30	30	10	50m	100nØ	10Ø	1.0uΔ	100 †Δ					E*	TO46	AØ	
47	HA7539	400m		3.3m	§J	90				.10u			14 Δ					A	TO5		
48	NS1861	400m		2.2m	§J	30	30	20		1.0uØ	6.0Ø	1.0mØ	50 Δ					DE	TO5	A	
49	NS1862	400m		2.2m	§J	50	50	35		1.0uØ	6.0Ø	1.0mØ	50 Ø					DE	TO5	A	
50	UC1100	400m		2.2m	§J	45	45	6.0	30m	500n	5.0Ø	10uØ	200 †Δ				6.0pØ	PLØ	TO46	A	
51	2N2871Ø	400m	500kΔ	2.8m	§S	60	60	60	200m#	100nØ	5.0Ø	1.0mØ	15 †Δ				70pØ	Δ	L17j		
52	2N2872Ø	400m	500kΔ	2.8m	§S	110	110	110	200m#	100nØ	5.0Ø	1.0mØ	15 †Δ				70pØ	Δ	L17j		
53	HA7535	400m	800k	2.9m	$J	110		110		100n	5.0	1.0mØ	20	1.2ub	30	4.0	95p	F			
54	HA7540	400m	800k	2.9m	$J	150		150		100n	5.0	1.0m	20	1.2ub	30	4.0	95p	A	TO5		
55	HA7541	400m	800k	2.9m	$J	90		90		100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A	TO5		
56	HA7542	400m	800k	2.9m	$J	110		110		100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A	TO5		
57	HA7543	400m	800k	2.9m	$J	60		60		100n	5.0	1.0m	90	1.2ub	30	4.0	95p	A	TO5		
58	NS1002	400m	800k	2.9m	$J	110	110	110	100m	100nØ	5.0	1.0m	22	1.2ub	60	16	20pØ	A†	TO5		
59	2N1232A	400m	1.0M	3.1m	§	90		90		100n	5.0	1.0m	20	1.2ub	30	4.0	95p	A	TO5		
60	2N2174	400m	1.0M	2.3m		45					5.0	10m	22 †Δ					A			
61	HA7534	400m	1.0M	2.9m	$J	60		60		100n	5.0	1.0mØ	20	1.2ub	30	4.0	95p	F			
62	HA7538	400m	1.0M	2.9m	$J	60		60		100n	5.0	1.0mØ	42	1.2ub	30	4.0	95p	F			
63	HA7630	400m	1.0M		♦	40		20		5.0u	10	5.0m	22	1.5u	10	4.0		A	TO5		
64	HA7631	400m	1.0M		♦	80		40		2.0u	10	5.0m	22	1.5u	10	4.0		A	TO5		
65	HA7632	400m	1.0M		♦	40		20		5.0u	10	5.0m	60	1.5u	10	4.0		A	TO5		
66	HA7633	400m	1.0M		♦	80		40		2.0u	10	5.0m	60	1.5u	10	4.0		A	TO5		
67	HA7804Ø	400m	1.0M	2.8m	ØJ	10	10	10	100m	50n							70pØ	A	TO5		
68	HA7806Ø	400m	1.0M	2.8m	$J	15	15	15		50nØ							90pØ	A	TO5		
69	HA7808Ø	400m	1.0M	2.8m	$J	15	15	15		50nØ							70pØ	A	TO5		
70	HA7810Ø	400m	1.0M	2.8m	ØJ	10	10	10	100m	50nØ							90pØ	A	TO5		
71	HA7815Ø	400m	1.0M	2.8m	ØJ	30	30	30	100m	50nØ							70pØ	A	TO5		
72	MA7805Ø	400m	1.0M	2.8m	ØJ	10	10	10	100m	50n							70pØ	A	TO5		
73	MA7811Ø	400m	1.0M	2.8m	ØJ	10	10	10	100m	50nØ							90pØ	A	TO5		
74	MA7816Ø	400m	1.0M	2.8m	ØJ	30	30	30	100m	50nØ							70pØ	A	TO5		
75	MA7817Ø	400m	1.0M	2.8m	ØJ	30	30	30	100m	50nØ							70pØ	A	TO5		
76	NS100	400m	1.0M	2.3m	§A	50		50	100m	.02u	6.0	1.0m	50	35u	1.0k		5.0p	A			
77	NS101	400m	1.0M	2.3m	§A	50		50	100m	.02u	6.0	1.0m	20	35u	1.0k		5.0p	A			
78	NS1000	400m	1.0M	2.9m	§J	60	60	60	100m	100nØ	5.0	1.0m	22	1.2ub	60	16	20pØ	A†	TO5		
79	NS1001	400m	1.0M	2.9m	§J	60	60	60	100m	100nØ	5.0	1.0m	40	1.2ub	60	16	20pØ	A†	TO5		
80	HA7530	400m	1.2M	2.9m	§J	35		35	100m	.10u	5.0	1.0m	12	1.2u	30	10	95p		TO5		
81	HA7531	400m	1.2M	2.9m	§J	60		60	100m	.10u	5.0	1.0m	12	1.2u	30	10	95p		TO5		
82	HA7532	400m	1.2M	2.9m	§J	15		15		.10u	5.0	1.0mØ	20	1.2u	30	15	95p	F			
83	HA7533	400m	1.2M	2.9m	§J	35		35		.10u	5.0	1.0mØ	20	1.2u	30	8.0	95p	F			
84	HA7536	400m	1.2M	2.9m	§J	15		15		.10u	5.0	1.0mØ	42	1.2u	30	15	95p	F			
85	HA7537	400m	1.2M	2.9m	§J	35		35		.10u	5.0	1.0mØ	42	1.2u	30	8.0	95p	F			
86	TW135Ø	400m	10M§Δ	2.3m	§J	30		15	100m	1.0n			50 †Δ				9pØ	PE	TO18	A	
87	RT3500	400m	16M§Δ	2.3m	§J	10	6.0	10		3nØ	.50Ø	5.0mØ	10 †Δ				10pØ	PL	TO46		
88	NS1672	400m	90M§	2.2m	§J	25	15	5.0		100nØ	5.0Ø	100uØ	40 †Δ	500nb	27	6.0	5.0p		TO18	A	
89	NS1673	400m	90M§	2.2m	§J	25	15	5.0		100nØ	5.0Ø	100uØ	100 †Δ	500nb	27	6.0	5.0p		TO18	A	
90	NS1674	400m	90M§	2.2m	§J	25	15	5.0		100nØ	5.0Ø	100uØ	40 †Δ	500nb	27	6.0	5.0p		TO46	A	
91	NS1675	400m	90M§	2.2m	§J	25	15	5.0		100nØ	5.0Ø	100uØ	100 †Δ	500nb	27	6.0	5.0p		TO46	A	
92#	SI351P†	400m	90.M§	2.3m	§J	50	35	6.0		25nØ	5.0	1.5m	15 †Δ				20p	DPL	TO18		
93#	SI352P†	400m	90.M§	2.3m	§J	50	35	6.0		25nØ	5.0	1.5m	30 †Δ				20p	DPL	TO18		
94#	SI353P†	400m	90.M§	2.3m	§J	50	35	6.0		25nØ	5.0	1.5m	60 †Δ				20p	DPL	TO18		
95	2N1132A/46	400m	96MΔ	3.0m	§J	50	35	5.0		1.0u	10Ø	500uØ	30 †#Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	D	TO46		
96	2N2303/46	400m	96.MΔ	4.0m	§J	50	35	5.0		1.0uØ	10Ø	150mØ	75 †#Δ				45pØ	D	TO46		
97	2N1132B/46	400m	100M	2.3m	§J	70	45	6.0	600m	100u	10Ø	150mØ	60 †	.25u	28	3.0	25p	PL	TO46		
98	2N2927/46	400m	100M§Δ	2.3m	§J	25	25	4.0	500m	.02uØ	1.0Ø	50mØ	30 †Δ	1.2mØ	1.5kØ	26 Ø	20pØ	PE	TO46		
99	HA9532B	400m	100M	2.6m	§J	70		6.0		10n	10Ø	150mØ	40 †	1.0ub	30	8.0	35p	PL	TO18		
100	ST8181	400m	100M§Δ	2.2m	§J	50	35	5.0	1.0	50nØ	10Ø	150mØ	20 †Δ				11pØ	PE	TO18	Ø	
101	ST8182	400m	100M§Δ	2.2m	§J	50	35	5.0	1.0	50nØ	10Ø	150mØ	100 †Δ				11pØ	PE	TO18	Ø	
102	2N2800/46†	400m	120M§Δ	2.3m	§J	50	35	5.0	800m	.10u	10Ø	150mØ	30 †Δ				25p	E	TO46		
103	2N2801/46†	400m	120M§Δ	2.3m	§J	50	35	5.0		.10u	10Ø	150mØ	75 †Δ				25p	E	TO46		
104	2N3081/46	400m	150M§Δ	2.3m	§J	70	50	6.0	600m	.01uØ	10Ø	150mØ	30 †Δ				13pØ	PE	TO46	AØ	
105	USAF517ES060M†	438m	50M§Δ	2.5m	§J	120	80	7.7	500m	.01uØ	10Ø	50mØ	30 Δ				55pØ	PE	u26a		

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E M A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	USAF520ES070M†	438m	50M§Δ	2.5m	§J	50	40	5.5	500m	20nØ	10Ø	1.0 Ø	20 †Δ				38pØ	PE	u26a	
2	USAF521ES071M†	438m	50M§Δ	2.5m	§J	35	35	4.0	500m	50nØ	10Ø	150mØ	30 †#Δ				40pØ	PLE	u25	
3#	OC480K	480mØ		2.4m	§J	125	125		50m	2.0u	5.0Ø	1.0m	15	25u	1.1k	6.0	40p	A	R43	
4#	OC463K	480mØ	5.0M	2.4m	§J	10	10		50m	2.0u	5.0Ø	1.0m	30	100u	1.8k		25p	A	R43	
5	HA7501	500m	.70M	4.0m	§J	60		60		.10uØ	5.0	1.0m	8.0					F		
6	HA7506	500m	.90M	4.0m	§J	35		35		.50uØ	5.0	1.0m	12					F		
7	HA7502	500m	1.0M	4.0m	§J	60		60		.10uØ	5.0	1.0m	16					F		
8	HA7510	500m	1.2M	4.0m	§J	35		35		.50uØ	5.0	1.0m	21					F		
9	HA7507	500m	1.6M	4.0m	§J	20		20		.10uØ	5.0	1.0m	15					F		
10	TK250A	500m	100M§		§J	40	20	6.0	250m		9.0Ø	.02mØ	20					DΔ	TO9	
11	TK251A	500m	100M§		§J	40	20	6.0	250m		9.0Ø	.02mØ	20					DΔ	TO9	
12	ST8014	600m		345u	§J	40	30 §	5.0	600m	1.0uØ	10Ø	.15mØ	85					ME	TO5	
13	NS1234	600m	10.M	3.4m	§J	110	110	60	100m	.10u	5.0	1.0mØ	14 †Δ				10p	DE	TO5	
14	2N3857	600m	20M§	3.4m	§S	45	45	30	500m	5.0nØ	5.0Ø	1.0mØ	200 †Ø	1.5uØb	35 Ø	20 Ø	10pØ	Ø	TO5	A
15	ST8033	600m	30M§Δ			40	40 §	2.0		1.0u	5.0Ø	1.0mØ	30				45p	PL	TO5	
16	ST8034	600m	40M§Δ			40	40 §	2.0		1.0u	5.0Ø	1.0mØ	60				45p	PL	TO5	
17	USAF508ES020P	600m	40M§Δ	14m	§J	50	35	5.2	600m	500nØ	10Ø	10mØ	20 †#Δ				45pØ	DPL	TO39	Ø
18	USAF508ES021P	600m	40M§Δ	14m	§J	50	35	5.2	600m	500nØ	10Ø	10mØ	20 †#Δ				45pØ	DM	TO39	Ø
19#	SI341P†	600m	80.M§	4.0m	§J	50	35	6.0		25nØ	5.0	1.5m	15 †Δ				40p	DPL	TO5	
20#	SI342P†	600m	80.M§	4.0m	§J	50	35	6.0		25nØ	5.0	1.5m	30 †Δ				40p	DPL	TO5	
21#	SI343P†	600m	80.M§	4.0m	§J	50	35	6.0		25nØ	5.0	1.5m	60 †Δ				40p	DPL	TO5	
22	ST8183	600m	100M§Δ	3.4m	§J	50	35	5.0	1.0	50nØ	10Ø	150mØ	20 †Δ				11pØ	PE	TO5	AØ
23	ST8184	600m	100M§Δ	3.4m	§J	50	35	5.0	1.0	50nØ	10Ø	150mØ	100 †Δ				11pØ	PE	TO5	AØ
24	2N3224	700m	60M§Δ	4.7m	§S	100	100	6.0		100nØ	5.0Ø	1.0mØ	20 Δ				20pØ		TO5	AØ
25	HA9500	750m	100M§		§A	40		5.0		1.0uØ	20Ø	150mØ	45 †Ø				15pØ	MEΔ	TO5	
26	HA9501	750m	100M§		§A	40		5.0		1.0uØ	20Ø	150mØ	90 †Ø				15pØ	MEΔ	TO5	
27	HA9502	750m	100M§		§A	50		5.0		1.0uØ	20Ø	150mØ	100 †Ø				15pØ	MEΔ	TO5	
28	2N1679	800m		5.3m	§	100		5.0	1	30u	3.6Ø	600mØ	40 †Δ				28p	ME		
29	2N1680	800m		5.3m	§	60		5.0	1	30u	3.6Ø	600mØ	40 †Δ				28p	ME		
30	2N2216	800m	40.M§	4.5m	§J	150	100	6.0	250m	.01uØ	10Ø	50mØ	73 †#				15pØ	PLΔ	TO5	
31	2N2105	800m	50.M§	4.5m	§J	50	35	6.0	600m	.02uØ	10Ø	150mØ	33 †#				35pØ	PLΔ	TO5	
32	2N2104	800m	60.M§	4.5m	§J	50	35	6.0	600m	.02uØ	10Ø	150mØ	60 †#				35pØ	PLΔ	TO5	
33#	TX116-1	800m	150M		♦A	60		5.0	50m	1.0u	20Ø	10mØ	60 †	b	35		3.0p	ME		
34#	TX116-2	800m	150M		♦A	60		5.0	50m	1.0u	20Ø	10mØ	60 †	b	35		3.0p	ME		
35#	TX116-3	800m	150M		♦A	60		5.0	50m	1.0u	20Ø	10mØ	60 †	b	35		3.0p	ME		
36	2N2391	1.0 Ø	100M§				20		30m		1.0Ø	10mØ	30 †					PL	TO50	
37	2N2392	1.0 Ø	100M§				20		30m		1.0Ø	10mØ	60 †					PL	TO50	
38	2N2303/KVT	2 Ø	96.MΔ	11m		50	35	5.0		1.0uØ	10Ø	150mØ	75 †#Δ				45pØ	D	X30	
39	2N1132/KVT	3.0 Ø	96MΔ	16m		50	35	5.0		1.0u	10Ø	500uØ	30 †#Δ	1.0uØb	35 Ø	8.0pØ	45pØ	D	X30	
40	HA7516	5.0 Ø	1.0M	7.1m	§J	90		90		100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A	X3	
41	HA7517	5.0 Ø	1.0M	7.1m	§J	110		110		100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A	X3	
42	HA7518	5.0 Ø	1.0M	7.1m	§J	60		60		100n	5.0	1.0m	90	1.2ub	30	4.0	95p	A	X3	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L E A D	C O D E
1	USA55191/35†	00m	200M§Δ	4.0mØ	§S	25	20 §			15uØ	.70Ø	8.0mØ	20 †Δ				6.0pØ				
2	10G1051		130M§				15	4.5		30uØ	1.0Ø	10mØ	20 †Δ				4.0p	PE	X36		
3	D10B1051		130M§				15	5.0		25uØ	1.0Ø	10mØ	30 †Δ				6.0p	PE	X36		
4	D10B1055		130M§				15	3.0		30uØ	1.0Ø	10mØ	20 †Δ					PE	X36		
5	D10G1051		130M§				15	4.5		30uØ	1.0Ø	10mØ	20 †Δ				4.0p	PE	X36		
6	D10G1052		130M§				15	4.5		30uØ	1.0Ø	10mØ	40 †Δ				4.0p	PE	X36		
7	RT698		180M		§J	120		5.0		5.0n	10Ø	150mØ	40 †#Δ				14		TO5		
8	11G702		250M§				30 §			.01uØ			30 †Δ					PE	TO50		
9	11G703		250M§				40 §			.01uØ			20 †Δ					PE	TO50		
10	11G1052		250M§				30 §			.01uØ			30 †Δ					PE	u40		
11	11G1053		250M§				40 §			.01uØ			20 †Δ					PE	u40		
12	10B701†		300M§			40	15			.02uØ			30 †Δ					PE	TO50		
13	10D702		500M§				15 §			.01uØ			20 †Δ					PE	TO50		
14	10D701		600M§				15 §			.01uØ			20 †Δ					PE	TO50		
15	10E1051†		600M§			15	6.0			.05uØ			20 †Δ					PE	u40		
16	A1409	1.5mØ	125MΔ			150		6.0	25m	500n			50 †						TO5		
17#	TF251	15m	.50M		§J	5.0			20m				50								
18#	TF252	15m	.50M		§J	10			20m				50								
19	ST3031	20m	70.M	115u	§	20		1.0		1.0u	6.0	1.0mØ	40				4.0p		TO5		
20	ST1543	30m			§	6.0		1.0	5.0m		3.0	5.0u	25 †						TO18		
21	TMT1543	30m	20.M§		§J	6.0				.01u		20u	15 †Δ						TO51		
22	TMT2427	30m	50.M§		§J	40				.01u		10u	20 †Δ					Δ			
23	ST3042	50m	1.0M		§S	1.0															
24	ST3043	50m	1.0M		§S	1.0															
25	2N2931	50m*	20M§Δ	625u	♦S	5.0	5.0	3.0	50m	.01uØ	.50Ø	20mØ	30 Δ				12pØ		u21		
26	2N2932	50m*	20M§Δ	625u	♦S	5.0	5.0	3.0	50m	.01uØ	.50Ø	20mØ	70 Δ				12pØ		u21		
27	2N2933	50m*	20M§Δ	625u	♦S	5.0	5.0	3.0	50m	.01uØ	.50Ø	20mØ	45 Δ				12pØ		u21		
28	2N2934	50m*	20M§Δ	625u	♦S	45	30	5.0	50m	.01uØ	.50	20mØ	30 Δ				11pØ		u21		
29	2N2935	50m*	20M§Δ	625u	♦S	45	30	5.0	50m	.01uØ	.50	20mØ	70 Δ				11pØ		u21		
30#	BFY22	50m*	20M§	625u	♦J	5.0	5.0	3.0	50m	15nØ	.50Ø	200uØ	30 Δ					PEØ	u22		
31#	BFY23	50m*	20M§	625u	♦J	5.0	5.0	3.0	50m	15nØ	.50Ø	200uØ	70 Δ					PEØ	u22		
32#	BFY24	50m*	20M§	625u	♦J	5.0	5.0	3.0	50m	15nØ	.50Ø	200uØ	100 Δ					PEØ	u22		
33#	BFY29	50m*	20M§	625u	♦J	45	30	5.0	50m	15nØ	.50Ø	200uØ	30 Δ						u21		
34	A151	50m	150M§	625u	♦J	20	20	4.0	50m	10nØ	.50Ø	200uØ	140 †	15u	20k	15	4.0p	PEØ	u40a		
35	A152	50m	150M§	625u	♦J	20	20	4.0	50m	10nØ	.50Ø	200uØ	240 †	20u	30k	25	4.0p	PE	u40a		
36	A153	50m	150M§	625u	♦J	20	20	4.0	50m	10nØ	.50Ø	200uØ	415 †	35u	45k	40	4.0p	PEØ	u40a		
37#	BFY23A	62m	20M§	625u	♦J	5.0	5.0	3.0	50m	15nØ	.50Ø	200uØ	200 Δ					PE	u21		
38#	BFY30	62m	20M§	625u	♦J	45	30	5.0	50m	15nØ	.50Ø	200uØ	110					PE	u21		
39	2N773	65m§		1.2m	§	20		2.0	100m		10Ø	2.0mØ	11				1.5p	D	TO18		
40	RT929H	70m	30M§Δ		♦J	45	45	5.0		.01u	5.0Ø	.01mØ	40 †Δ				8pØ	PEØ	u24		
41	2N701	75m			#J	30		1.0					25				1.2				
42	2N774	80m§		1.2m	§	20		2.0	100m		10Ø	2.0mØ	20				1.5p	D	TO18		
43	D26B1†	90m		1.2m	#J	40	15	4.5		.40uØ	10Ø	10mØ	4.0 Δ				4pØ	PE	u40b		
44	D26B2†	90m		1.2m	#J	40	15	4.5		.40uØ	10Ø	10mØ	5.0 Δ				4pØ	PE	u40b		
45	D26C1	90m		1.2m	#J	18	18	5.0		25n	5.0Ø	10mØ	30 †Δ#				7.0pØ	PEΔ	u40b		
46	D26C2	90m		1.2m	#J	18	18	5.0		25n	5.0Ø	10mØ	60 †Δ#				7.0pØ	PEΔ	u40b		
47	D26C3	90m		1.2m	#J	18	18	5.0		25n	5.0Ø	10mØ	140 †Δ#				7.0pØ	PEΔ	u40b		
48	A1518	100m				15	3.0	3.0		.01u	5.0	.10m	65 †					PE	X31b		
49	A1519	100m				15	3.0	3.0		.01u	5.0	.10m	100 †					PE	X31b		
50	A1520	100m				15	3.0	3.0		.01u	5.0	.10m	165 †					PE	X31b		
51	A1521	100m				15	3.0	3.0		.01u	5.0	.10m	240 †					PE	X31b		
52	NS3000Ø	100m			§J	10		12	10m	10u									RO38a		
53	NS3001Ø	100m			§J	10		12	10m	10u									RO38a		
54	NS3050Ø	100m			§J	10		12	10m	10u									RO38a		
55	NS3051Ø	100m			§J	10		12	10m	10u									RO38a		
56	NS3052Ø	100m			§J	10		12	10m	10u									RO38a		
57	NS3053Ø	100m			§J	10		12	10m	10u									RO38a		
58	PMT011	100m		1.3m	§S	30	25 §	4.0		10uØ	10Ø	10mØ	3.0				20p	ME	u7		
59	PMT012	100m		1.3m	§S	30	25 §	4.0		10uØ	10Ø	10mØ	3.5				20p	ME	u7		
60	PMT013	100m		1.3m	§S	60	40 §	5.0		10uØ	10Ø	10mØ	5.0				20p	ME	u7		
61	PMT014	100m			§J	60	40 §	5.0		1.0uØ	10Ø	150m	2.5				20p		u7		
62	PMT015	100m		769u	§S	80	50 §	8.0		.50uØ	10Ø	10mØ	5.0				20p	ME	u7		
63	PMT016	100m		1.3m	§J	25	20 §	5.0		.50uØ	3.0Ø	10mØ	4.0				5.0p	ME	u7		
64	PMT018	100m		1.3m	§S	40	30 §	5.0		1.0uØ	10Ø	10mØ	4.0				20p	ME	u7		
65	PMT019	100m		1.3m	§S	40	30 §	5.0		1.0uØ	10Ø	10mØ	6.0				20p	ME	u7		
66	PMT020	100m		769u	§S	45	30 §	5.0		2.0uØ	5.0Ø	1.0mØ	37				30pØ	ME	u7		
67	PMT024	100m		1.3m	§S	30	20 §	5.0		1.0u	10Ø	150mØ	20 #Δ				45pØ	MEΔ	u7		
68	PMT111	100m		769u	§S	30	50 §	4.0		10uØ	10Ø	10mØ	3.0				20p	ME	u6		
69	PMT112	100m		769u	§S	30	25 §	4.0		10uØ	10Ø	10mØ	3.5				20p	ME	u6		
70	PMT113	100m		769u	§S	60	40 §	5.0		1.0uØ	10Ø	10mØ	4.0				20p	ME	u6		
71	PMT114	100m		769u	§S	60		5.0		1.0uØ	10Ø	10mØ	5.0				20p	ME	u6		
72	PMT116	100m		769u	§S	25	20 §	3.0		.50uØ	10Ø	10mØ	4.0				5.0p	MEΔ	u6		
73	PMT118	100m		769u	§S	40	30 §	5.0		1.0uØ	10Ø	10mØ	4.0				20p	ME	u6		
74	PMT119	100m		769u	§S	40	30 §	5.0		1.0uØ	10Ø	10mØ	6.0				20p	ME	u6		
75	PMT120	100m		769u	§S	45	30 §	5.0		2.0uØ	10Ø	10mØ	5.0				30pØ	ME	u6		
76#	2S741	100m	2.0M	1.0m	§J	30	30 §	1.0	25m	1.0u	5.0Ø	3.0mØ	5.0 †Δ				12p	G	TO5		
77#	2S742	100m	2.0M	1.0m	§J	75	75 §	1.0	25m	1.0u	5.0Ø	3.0mØ	5.0 †Δ				12p	G	TO5		
78#	2S743	100m	2.0M	1.0m	§J	115	115 §	1.0	25m	1.0u	5.0Ø	3.0mØ	5.0 †Δ				12p	G	TO5		
79#	2S744	100m	2.0M	1.0m	§J	30	30 §	1.0	25m	1.0u	5.0Ø	3.0mØ	20 †Δ				12p	G	TO5		
80#	2S745	100m	2.0M	1.0m	§J	75	75 §	1.0	25m	1.0u	5.0Ø	3.0mØ	20 †Δ				12p	G	TO5		
81#	2S746	100m	2.0M	1.0m	§J	115	115 §	1.0	25m	1.0u	5.0Ø	3.0mØ	20 †Δ				12p	G	TO5		
82	RD316	100m	2.0M		§	20		1.0	20m	20u	5.0	1.0m	9.0					G			
83	2N1200	100m	4.3MØ	769u	§S	20	15	2.0	100m	.70uØ	10Ø	1.5mØ	7.0 †Δ				3.5pØ	†	TO9		
84	A1460	100m	10M§Δ		§J		15	5.0		.01u§	5.0Ø	.10mØ	600 *†Ø				8pØ	PL	X31a		
85	2N1201	100m	12.MØ	769u	§S	20	15	2.0	100m	.70uØ	10Ø	1.5mØ	7.0 †Δ				3.5pØ	†	TO9		
86	JAN2N1200	100m	25M§Δ	7.6m	§S	20	14 Ø	1.0		5.0u	10Ø	2.0m	9.0 Δ				3.5pØ		R49		
87	JAN2N1201	100m	30M§Δ	7.6m	§S	20	14 Ø	1.0		5.0u	10Ø	2.0m	9.0 Δ				3.5pØ	†	R49		
88	10H551	100m	30M§Δ	1.0m	♦J	45	45	5.0		10nØ	5.0Ø	1.0mØ	60 Δ	1.0uØb	35 Ø		8.0pØ	PL	ZA7		
89	10H553	100m	30M§Δ	1.0m	♦J	45	45	5.0		10nØ	5.0Ø	1.0mØ	150 Δ	1.0uØb	35 Ø		8.0pØ	PL	ZA7		
90	10H1051	100m	30M§Δ	1.0m	♦J	45	45	5.0		10n	5.0Ø	1.0mØ	6.0 Δ	1.0uØb	35 Ø		8.0pØ	PL	X36b		
91	10H1053	100m	30M§Δ	1.0m	♦J	45	45	5.0		10n	5.0Ø	1.0mØ	150 Δ	1.0uØb	35 Ø		8.0pØ	PL	X36b		
92	D10H551-2,-3	100m	30M§Δ	1.0m	♦J	45	45	5.0		10n	5.0Ø	1.0mØ	60 Δ	1.0uØb	35 Ø		8.0pØ	PL	ZA7		
93	D10H553-2,-3	100m	30M§Δ	1.0m	♦J	45	45	5.0		10n	5.0	1.0m	150 Δ	1.0nØb	35 Ø		8.0pØ	PL	ZA7		
94	2N841/TNT	100m	40M§	555u		45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	140	350nb	40	2.0	8.0p	ME†	u17		
95	11B551	100m	40M§Δ	1.0m		60	28	5.0		.50u	10Ø	10mØ	20 †Δ						X10		
96	D11B551-2,-3	100m	40M§Δ	1.0m	♦J	60	28	5.0		500nØ	10Ø	10mØ	20 †Δ#					PE	ZA7		
97	D11B551-2,3	100m	40M§Δ	1.0m	♦J	60	28	5.0		.50uØ	10Ø	10mØ	20 †Δ#					PE	ZA7		
98	11B552	100m	50M§Δ	1.0m		60	28	5.0		.50u	10Ø	10mØ	40 †Δ						X10		
99	11B556	100m	50M§Δ	1.0m		100	80	7.0		.02u	10Ø	10mØ	40 †Δ				15p		X10		
100	11B560	100m	50M§Δ	1.0m		100	60	5.0		.50u	10Ø	10mØ	40 †Δ						X10		
101	11C551	100m	50M§Δ	1.0m		60	40	5.0		.02u	10Ø	10mØ	100 †Δ				20p		X10		
102	11C553	100m	50M§Δ	1.0m		60	40	7.0		.02u	10Ø	10mØ	40 †Δ				20p		X10		
103	11C557	100m	50M§Δ	1.0m		45	25	5.0		.05u	10Ø	10mØ	30 †Δ				20p		X10		
104	11C1051	100m	50M§Δ	1.0m	♦J	60	40	5.0		25uØ	10Ø	1.0mØ	75 †Δ				20pØ	PE	X36		
105	11C1053	100m	50M§Δ	1.0m	♦J	60	40	7.0		25uØ	10Ø	1.0mØ	30 †Δ				20pØ	PE	X36		
106	11C1057	100m	50M§Δ	1.0m	♦J	45	25	5.0		.05uØ	10Ø	10mØ	30 †#Δ				20pØ	PE	X36		
107#	BC111	100m	50MΔ	666u	§J	25		4.0	50m			10mØ	80 †Δ					PL	u33		
108	D11B552-2,3	100m	50M§Δ	1.0m	♦J	60	28	5.0		.50uØ	10Ø	10mØ	40 †Δ#					PE	ZA7		
109	D11B556-2,-3	100m	50M§Δ	1.0m	♦J	100	80	7.0		25nØ	10Ø	10mØ	40 †#				15pØ		ZA7		
110	D11B560-2,3	100m	50M§Δ	1.0m	♦J	100	60	5.0		.50uØ	10Ø	10mØ	40 †#					PE	ZA7		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1	D11C551-2,-3	100m	50M§Δ	1.0m	♦J		60	40	5.0		25nØ	10Ø	10mØ	100 †#				20pØ	PE	ZA7	
2	D11C553-2,-3	100m	50M§Δ	1.0m	♦J		60	40	7.0		25nØ	10Ø	10mØ	40 †#				20pØ	PE	ZA7	
3	D11C557-2,-3	100m	50M§Δ	1.0m	♦J		45	25	5.0		50nØ	10Ø	10mØ	30 †Δ				20pØ	PE	ZA7	
4	D11C1051	100m	50M§Δ	1.0m	♦J		60	40	5.0		25nØ	10Ø	10mØ	100 †Δ#				20pØ	PE	X36	
5	D11C1053	100m	50M§Δ	1.0m	♦J		60	40	7.0		25nØ	10Ø	10mØ	40 †Δ#				20pØ	PE	X36	
6	D11C1057	100m	50M§Δ	1.0m	♦J		45	25	5.0		.05uØ	10Ø	10mØ	30 †Δ#				20pØ	PE	X36	
7	11B554	100m	60M§Δ	1.0m			60	28	7.0		.02u	10Ø	10mØ	40 †Δ				25p		X10	
8	11B555	100m	60M§Δ	1.0m			60	28	7.0		.02u	10Ø	10mØ	100 †Δ				25p		X10	
9	D11B554-2,3	100m	60M§Δ	1.0m	♦J		60	28	7.0		.25uØ	10Ø	10mØ	40 †Δ#				25pØ	†	ZA7	
10	D11B555-2,-3	100m	60M§Δ	1.0m	♦J		60	28	7.0		25nØ	10Ø	10mØ	100 †#				25pØ	†	ZA7	
11	ST3030	100m	70.M	769u	$		15		1.0		50u							3.0p	GΔ	TO5	
12	2N1893/TNT	100m	80.MΔ	556u	§J		120	80	7.0		.01uØ	10Ø	150mØ	80 #†	11u	2.8k	3.5	15pØ	PLΔ	u17	
13	NS1500	100m	100M§Δ	667u	§A			20	8.0			1.0Ø	.10mØ	75 †				6pØ	Δ	TO18	
14	NS3039Ø	100m	100M§Δ	6.6m	§		20	18	18											L15a	Ø
15	NS3040Ø	100m	100M§Δ	6.6m	§		20	18	18											L15a	Ø
16	NS3041Ø	100m	100M§Δ	6.6m	§		20	18	18											L15a	Ø
17	2N1613/TNT	100m	130M	556u			75	50 §	7.0		.01uØ	10Ø	150mØ	80 †#	12.u	2.2k	3.6	25pØ	PL†Δ	u17	
18	11B1052	100m	130M§						5.0		25uØ	10Ø	10mØ	40 †Δ					PLΔ	X36	
19	D11B1052	100m	130M§						5.0		25uØ	10Ø	10mØ	40 †Δ					PLΔ	X36	
20	D11B1055	100m	130M§						7.0		15uØ	10Ø	10mØ	100 †Δ					PLΔ	X36	
21	2N1711/TNT	100m	160M	556u			75	50 §	7.0		.01uØ	10Ø	150mØ	130 †	23.u	4.4k	7.3	25pØ	PLØΔ	u17	
22	PMT025	100mØ	160M	10m	$J		75	50 §	7.0		10uØ	10Ø	5.0mØ	93				25pØ	ME†Δ	u7	
23	PMT125	100mØ	160M	1.7m	$J		75	50 §	7.0		10uØ	10Ø	5.0mØ	93				25pØ	ME†Δ	u6	
24	PMT225	100mØ	160M	1.7m	$J		75	50 §	7.0		10uØ	10Ø	5.0mØ	93				25pØ	ME†Δ	TO51	
25	10B553	100m	200M§Δ	1.0m			40	20 §	5.0		.50u	1.0Ø	10mØ	30 †Δ				6.0p		X10	
26	10B555	100m	200M§Δ	1.0m			25	20 §	3.0		.50u	1.0Ø	10mØ	20 †Δ				6.0p		X10	
27	10B556	100m	200M§Δ	1.0m			25	20 §	5.0		.50u	1.0Ø	10mØ	20 †Δ				6.0p		X10	
28	10C573	100m	200M§Δ	1.0m			45	45	6.0		.20u	5.0Ø	1.0m	36 Δ				8.0p		X10	
29	10C574	100m	200M§Δ	1.0m			45	45	6.0		.20u	5.0Ø	1.0m	76 Δ				8.0p		X10	
30	A1462†	100m	200M§Δ	833u	§J		20	9.0	5.0	50m	400n§†	.35Ø	10mØ	30 †Δ					PEΔ	X56	
31#	BSY32†	100m	200M§Δ	1.3m	#J		20	15	6.0	100m	10u	2.0Ø	10mØ	32 †				4.0p	PE	u18	
32#	BSY33†	100m	200M§Δ	1.3m	#J		20	15	6.0	100m	10u	2.0Ø	10mØ	55 †				4.0p	PE	u18	
33#	BSY47†	100m	200M§Δ	1.3m	#J		20	15	6.0	100m	10u	2.0Ø	10mØ	32 †				4.0p	PE	u19	
34#	BSY48†	100m	200M§Δ	1.3m	#J		20	15	6.0	100m	10u	2.0Ø	10mØ	55 †				4.0p	PE	u19	
35	D10B553-2,3†	100m	200M§Δ	1.0m	♦J		40	15	5.0		.50uØ	1.0Ø	10mØ	30 †Δ#				6pØ	PE	ZA7	
36	D10B555-2,3†	100m	200M§Δ	1.0m	♦J		25	20 §	3.0		.50uØ	1.0Ø	10mØ	20 †Δ#				6pØ	PE	ZA7	
37	D10B556-2,-3	100m	200M§Δ	1.0m	♦J		25	15	5.0		500nØ	1.0Ø	10mØ	20 †Δ#				6.0pØ	PE	ZA7	
38	D10C573-2,-3	100m	200M§Δ	1.0m	♦J		45	45			300nØ	5.0Ø	1.0m	36 Δ	1.0uØb	80	10	8.0pØ	PL	ZA7	
39	D10C574-2,-3	100m	200M§Δ	1.0m	♦J		45	45			300nØ	5.0Ø	1.0m	76 Δ	1.0uØb	80	10	8.0pØ	PL	ZA7	
40	PMT1767M	100mØ	200M	7.7m	$J		25	15	5.0	200m	.50uØ	3.0Ø	10mØ	5.0				3.5p	ME	u7	
41	PMT1767P	100mØ	200M	7.7m	$		25	15	5.0	200m	.50uØ	3.0Ø	10mØ	5.0				3.5p	ME	u7	
42	PMT1767T	100mØ	200M	7.7m	$J		25	15	5.0	200m	.50uØ	3.0Ø	10mØ	5.0				3.5p	ME	u7	
43	PMT1787P	100mØ	200M	7.7m	$		25		5.0	200m	.50u	10Ø	.10mØ	40 †Δ				5.0p	PL	u7	
44	10B551	100m	300M§Δ	1.0m			40	20 §	5.0		.05u	1.0Ø	10mØ	30 †Δ				6.0p		X10	
45#	BSY36†	100m	300M§Δ	1.3m	#J		15	12	3.0	100m	10u	2.0Ø	10mØ	34 †				3.5p	PE	u18	
46#	BSY37†	100m	300M§Δ	1.3m	#J		15	12	3.0	100m	10u	2.0Ø	10mØ	34 †				3.5p	PE	u18	
47#	BSY50†	100m	300M§Δ	1.3m	#J		15	12	3.0	100m	10u	2.0Ø	10mØ	34 †				3.5p	PE	u19	
48	D10B551-2,3	100m	300M§Δ	1.0m	♦J		40	15	5.0		.05uØ	1.0Ø	10mØ	30 †Δ#				6pØ	PE	ZA7	
49	2N706A/TNT	100m	320MΔ	556u	§J		25	15	5.0		.05uØ	1.0Ø	10mØ	20				6pØ	D	u17	
50	2N2218/TNT	100m	400M§	556u	§J		60	30	5.0		.01uØ	10Ø	150mØ	80 †				4.0p	PLE	u17	
51	2N2219/TNT	100m	400M§	556u	§J		60	30	5.0		.01uØ	10Ø	150mØ	150 †				4.0p	PL	u17	
52	PMT021	100mØ	400M	10m	$J		20	15	5.0	220m	.50uØ	10Ø	10mØ	2.0 Δ				7pØ	ME	u7	
53	PMT022	100mØ	400M	10m	$J		50	20	5.0	220m	.50uØ	3.0Ø	10mØ	2.0 Δ				5pØ	ME	u7	
54	PMT121	100mØ	400M	1.7m	$J		20	15	5.0	220m	.50uØ	10Ø	10mØ	2.0 Δ				7pØ	ME	u6	
55	PMT122	100mØ	400M	1.7m	$J		50	20	5.0	220m	.50uØ	3.0Ø	10mØ	2.0 Δ				5pØ	ME	u6	
56	PMT222	100mØ	400M	1.7m	$J		50	20	5.0	220m	.50uØ	3.0Ø	10mØ	2.0 Δ				5pØ	ME	TO51	
57#	2SC286	100m	600M§Δ		$J		20	12	2.0	10m	1.0uØ	6.0Ø	2.0m	70				1.0pØ	PE	u23	
58#	2SC287	100m	600M§Δ		$J		20	12	2.0	10m	1.0uØ	6.0Ø	2.0m	70				1pØ	PE	u23	C
59	10D556-2,3	100m	600M§Δ	1.0m	♦J		25	15	3.0		.10uØ	1.0Ø	3.0mØ	20 †Δ				1.7pØ	PEØ	ZA7	
60	PMT023†	100m	750M	10m	§J		25	20 §	3.0		.50u	1.0Ø	10mØ	20 #Δ				5.0p	ME	u7	
61	PMT216†	100mØ	750M	1.3m	$J		25	20 §	3.0		.50u	1.0Ø	10mØ	20 #Δ				5.0p	ME	TO51	
62	2N2594/TNT	100m	800MΔ	556u			40	15	4.5	500m	.40uØ	1.0Ø	10m	80 †				4pØ	PE	u17	
63#	2SC288	100m	850M§Δ		§J		30	12	2.0	10m	1.0uØ	6.0Ø	2.0m	70				1pØ	PE	u23a	C
64	2N776	110m§		1.2m	$		20		2.0	100m		10Ø	2.0mØ	11				1.5p	D	TO18	
65#	BF219	120m#	260M§	2.7m	#J		40	35	4.0	20m	500nØ	7.0Ø	1.0mØ	180				1.1p†	PE	TO98	B
66#	BF220	120m#	260M§	2.7m	#J		40	35	4.0	20m	500nØ	7.0Ø	1.0mØ	180				1.1p†	PE	TO98	B
67	3N26	125m			♦		30			10m									G$		
68	3N27	125m			♦		30			10m									G$		
69	925	125m			$J		30			10m	.20u							1.8p	D$		
70	926	125m			§J		30			10m	.20u							1.8p	D$		
71	3N32	125m	4.3M		$J		30			10m				40					D$		
72#	10T2	125m	10.M	1.1m	$J		30			25m			1.0mØ	31 †							
73#	11T2	125m	10.M	1.1m	$J		30			25m			1.0mØ	63 †							
74#	12T2	125m	10.M	1.1m	$J		30			25m			1.0mØ	100 †							
75	2N1103	125m	12M§Δ	1.0m	§S		45	35	1.0	20m	1.0uØ	3.0Ø	10mØ	30 †Δ	1.0uØb	80 Ø	20 Ø	3.0pØ		TO5	
76	3N33	125m	12.M		$J		30			10m									D$		
77	NS075	125m	20M	1.0m	§J		45		1.0	20m		20	1.0m	65	200nb	40	2.0	1.2p	ME		
78	ST1694	125m	20.M	7.7m	♦J		40	20	1.0	20m	2.0uØ	5.0Ø	10mØ	40 †Δ				4pØ		TO5	
79#	2SC157	125m	25.M		§		20		1.0	20m	1.0u	6.0	2.0m	30				3.0p	ME	TO5	
80	NS078	125m	30M	1.0m	§J		45		1.0	20m		20	1.0m	99	200nb	40	3.0	1.2p	ME		
81#	2SC158	125m	40.M		§		20		1.0	20m	1.0u	6.0	2.0m	40				3.0p	ME	TO5	
82#	2SC159	125m	60.M		§		20		1.0	20m	1.0u	6.0	2.0m	50				3.0p	ME	TO5	
83	3N35A$	125m	70M§Δ	1.0m	$S		30	30	1.0	20m	.40uØ	20Ø	1.3m	10 Δ					†	TO12	
84#	2SC160	125m	100M		§		20		1.0	20m	1.0u	6.0	2.0m	60				3.0p	ME	TO5	
85#	3S002$	125m	100M	1.0m	$J		30		1.0	20m	10u	20Ø	1.0m	25				1.5p	GD	TO12	
86#	3S004$	125m	150M	1.0m	$J		30		1.0	20m	10u	20Ø	1.0m	25				1.5p	GD†	TO12	
87#	ST63†	125m	300M§Δ		$S		15	12	6.5	50m	10u	.35Ø	5.0mØ	40 †#Δ				5.0pØ	PEΔ	TO18	Ø
88	K5202	125m	1.8G§Δ	1.0m	$J		25	12	2.5		50nØ	1.0Ø	3.0mØ	20 †Δ				1.0pØ	PEØ	TO50	F
89	2N777	130m§		1.2m	$		20		2.0	100m		10Ø	2.0mØ	20				1.5p	D	TO18	
90#	64EPA	140m#	50M§Δ	2.0m	♦J		45	45	5.0	30m	.01u	5.0Ø	1.0mØ	200	14u	5.0k	2.5	8pØ	PE†	u46	A
91#	64EPB	140m#	50M§Δ	2.0m	♦J		45	45	5.0	30m	.01u	5.0Ø	1.0mØ	350	25u	10k	5.5	8pØ	PE†	u46	A
92#	103EP	140m	1.3G§Δ	1.4m	♦J		30	15	2.5	50m	10n	1.0Ø	2.0mØ	150 †Ø					PE		
93	A451	145m*	190M§	1.1m	§J		32	32	4.0	30m		10	1.0m	80					PLØ	TO72	G
94#	BF115Ø	145m*	190M§	1.1m	§J		32	32	4.0	30m		10	1.0m	80					PLØ	TO18	
95	A455	145m	220M§	1.1m	§J		30	20	5.0	30m		10Ø	1.0mØ	34 †Δ				1.6p	PEØ	TO72	
96	A454	145m	300M§	1.1m	§J		30	20	5.0	30m		10Ø	1.0mØ	75 †Δ					PEØ	TO72	
97	2N775	150m§		1.2m	$		20		2.0	100m		10Ø	2.0mØ	50				1.5p	D	TO18	
98	2N1005	150m		1.0m	§S		15	15	1.0	25m	.10uØ	5.0Ø	10mØ	10 †Δ						TO5	
99	2N1006	150m		1.0m	§S		15	15	1.0	25m	.10uØ	5.0Ø	10mØ	25 †Δ						TO5	
100	3N56$	150m			$S		18	15	3.0	30m										TO12	
101	3N57$	150m			#S		18	15	3.0	30m										TO12	
102	D4D22†	150m		1.2m	$J		40	24	1.5	25m	1.0uØ	5.0Ø	10mØ	250 †Ø	200nb	50	2.0	4.0pØ	GD	R133b	A
103	J460	150m					30			25m		2.0Ø	6.0mØ	3.0 †Δ					G	OV9	
104	J461	150m					30			25m		2.0Ø	6.0mØ	7.0 †Δ					G	OV9	
105	J462	150m					30			25m		2.0Ø	6.0mØ	14 †Δ					G	OV9	
106	J463	150m					30			25m		2.0Ø	6.0mØ	20 †Δ					G	OV9	
107	J464	150m					30			25m		2.0Ø	6.0mØ	30 †Δ					G	OV9	
108	J465	150m					30			25m		2.0Ø	6.0mØ	40 †Δ					G	OV9	
109	J466	150m					30			25m		2.0Ø	6.0mØ	50 †Δ					G	OV9	
110	MT101	150m		1.0m	▼S		10		3.0		.10uØ	2.5Ø	.20m	100 †					PE†	u15	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	NS060	150m	6.0m	1.0m	§J	45		1.0	25m		5.0	1.0m	15	500nb	40	2.0	5.0p	ME		
2	JAN2N332	150m	1.0MΔ	1.2m	$A	45		1.0			5.0	1.0m	9.0 Δ	1.2uØb	80 Ø	5.0 Ø	20pØ		TO5	
3#	THP61	150m	2.0M			15			25m	5.0										
4#	THP62	150m	2.0M			15			25m	5.0										
5#	THP35	150m	3.0M			30			25m	5.0										
6	J623	150m	4.0M			15			25m		5.0Ø	1.0m	18					G	TO5	
7	J624	150m	4.0M			30			25m		5.0Ø	1.0m	18					G	TO5	
8	J625	150m	4.0M			60			25m		5.0Ø	1.0m	18					G	TO5	
9#	THP36	150m	5.0M			30			25m	5.0										
10	2N789	150m	6.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	20 Ø	500nb	50	2.0	5.0p	PDΔ	u2	
11	2N902	150m	6.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	20 Ø	500nb	50	2.0	5.0p	PD	u10	
12	2N2529	150m	6.0M	1.0m	§J	45		2.0	25m	.05u	5.0	1.0m	18	.20u	50	2.0	3.0p		TO18	
13	CDQ10001	150m	6.0M	10m	§J	45		1.0	25m	2.0u	5.0	1.0m	200	400nb	42	4.0	7.0p	G	OV6	
14	J626	150m	6.0M			15			25m		5.0Ø	1.0m	50					G	TO5	
15	J627	150m	6.0M			30			25m		5.0Ø	1.0m	50					G	TO5	
16	J628	150m	6.0M			60			25m		5.0Ø	1.0m	50					G	TO5	
17	J629	150m	7.0M			15			25m		5.0Ø	1.0m	140					G	TO5	
18	J630	150m	7.0M			30			25m		5.0Ø	1.0m	140					G	TO5	
19	J631	150m	7.0M			60			25m		5.0Ø	1.0m	140					G	TO5	
20	JAN2N334	150m	8.0MΔ	1.2m	$A	45		1.0			5.0	1.0m	19 Δ	1.2uØb	80 Ø	10 Ø	20pØ		TO5	
21	2N790	150m	8.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	40 Ø	500nb	50	3.7	5.0p	PDΔ	u2	
22	2N792	150m	8.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	90 Ø	500nb	50	3.7	5.0p	PDΔ	u2	
23	2N903	150m	8.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	40 Ø	500nb	50	3.7	5.0p	PD	u10	
24	2N905	150m	8.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	90 Ø	500nb	50	3.7	5.0p	PD	u10	
25	CDQ10003	150m	8.0M	10m	§J	45		1.0	25m	2.0u	5.0	1.0m	29	b	25 Ø		7.0p	PL	TO5	Ø
26	NS063	150m	8.0M	1.0m	§J	45		1.0	25m		5.0	1.0m	29	500nb	40	3.0	5.0p	ME		
27	ST1242	150m	8.0M		§	40		2.0	25m		5.0	1.0m	30	.50u	55	3.7	10p		TO5	
28	JAN2N431	150m	10MΔ		$S	30	15	4.0			5.0	2.0m	30 Ø	1.5uØb	90	10	25pØ		TO5	
29	JAN2N432	150m	10MΔ	1.2m	$S	35	15	4.0		2.0uØ	5.0	2.0m	20 Δ	1.5uØb	90 Ø	13 Ø	25pØ		TO5	
30	JAN2N433	150m	10MΔ	1.2m	$S	30	15	4.0		2.0uØ	5.0	2.0m	45 Δ	1.5uØb	90 Ø	13 Ø	25pØ		TO5	
31	2N2530	150m	10.M	1.0m	§J	45		2.0	25m	.05u	5.0	1.0m	30	.20u	50	2.0	3.0p		TO18	
32	2N2533	150m	10.M	1.0m	§J	45		2.0	25m	.05u	20	1.0m	35 †	.20u	50	2.0	3.0p		TO18	
33	CDQ10005	150m	10M	1.0m	§J	45		1.0	25m	2.0u	5.0	1.0m	54	500nb	25 Ø	3.5	7.0p	PL	TO5	Ø
34	NS066	150m	10M	1.0m	§J	45		1.0	25m		5.0	1.0m	54	500nb	40	3.0	5.0p	ME		
35#	THP106	150m	10.M			30		1.0	25m	2.0u	5.0	1.0m	25	.50u	50	5.0	10			
36	2N791	150m	11M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	90 Ø	500nb	50	3.7	5.0p	PDΔ	u2	
37	2N904	150m	11M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	90 Ø	500nb	50	3.7	5.0p	PD	u10	
38	NS069	150m	11M	1.0m	§J	45		1.0	25m		5.0	1.0m	63	300nb	40	4.0	5.0p	ME		
39	2N2531	150m	12.M	1.0m	§J	45		2.0	25m	.05u	5.0	1.0m	60	.20u	50	2.0	3.0p		TO18	
40	2N793	150m	13M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	330 Ø	500nb	50	3.7	5.0p	PDΔ	u2	
41	2N906	150m	13M	1.0m	§J	45		1.0	25m	2.0uØ	5.0Ø	1.0mØ	333 Ø	500nb	50	3.7	5.0p	D	u10	
42	CDQ10009	150m	13M	1.0m	§J	45		1.0	25m	2.0u	5.0	1.0m	200	250nb	25 Ø	7.0	7.0p	PL	TO5	Ø
43	NS072	150m	13M	1.0m	§J	45		1.0	25m		5.0	1.0m	200	250nb	40	5.0	5.0p	ME		
44	2N2532	150m	16.M	1.0m	§J	45		2.0	25m	.05u	5.0	1.0m	150	.20u	50	2.0	3.0p		TO18	
45	2N1528	150m	20.M	1.0m	§J	25	25 Ø	2.0	20m	1.0uØ	6.0	1.0m	4.0 Δ				4.0p	PD†	TO5	
46	2N2534	150m	20MΔ	1.0m	§S	45	40	2.0	25m	50nØ	20Ø	1.0mØ	100	1.0uØb	80 Ø	7.5 Ø	3.0pØ	GD†	TO18	
47	NS6210Ø	150m	20M§Δ	1.1m	$A	30	15	15		10nØ	5.0Ø	1.0mØ	50 †Δ				12pØ		X16	
48	ST1243	150m	20M		§	40		2.0	25m		5.0	1.0m	30 †	200n	30	2.0	2.0p		TO5	A
49	ST1244	150m	20M		§	40		2.0	25m		5.0	10m	80 †	200n	30	2.0	2.0p		TO5	A
50	ST1290	150m	20.M		§	20		2.0	25m		5.0	10m	180 †	.20u	30	2.0	2.0p		TO5	
51	4JD4A2	150m	25.M		$		1.0		20m	.15uØ			14				14			
52	4JD4A3	150m	25.M		$		1.0		20m	.15uØ							14			
53	4JD4A4	150m	25.M		$		1.0		20m	.15uØ			15				14			
54	4JD4A5	150m	25.M		$		1.0		20m	.15uØ			40				14			
55#	ST25A	150m	25M		$J	45			15m	20uØ	9.0Ø	1.0mØ	15	600nb	45	4.0	3.0p			
56#	ST25B	150m	25M		$J	45			15m	20uØ	9.0Ø	1.0mØ	32	600nb	45	4.0	3.0p			
57#	ST25C	150m	25M		$J	45			15m	20uØ	9.0Ø	1.0mØ	68	600nb	45	4.0	3.0p			
58	2N745†	150m	30M	1.0m	§J	45	30	1.0	20m	1.0uØ	20	1.0m	55	100nb	47	1.8	1.4p	PD	u2	
59	2N907†	150m	30M	1.3m	§J	45		1.0	20m	50u	5.0Ø	10mØ	35 †	100nb	47	1.8	1.4p	PD	u10	
60	2N930/TPT	150m	30M§Δ	833u		45	45	5.0	30m	10n	5.0Ø	1.0mØ	150 Δ	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	X31	
61	2N930A/51	150m	30M§Δ	833u		60	45	6.0	30m	2.0nØ	5.0Ø	1.0mØ	150	1.0ub	28	6.0	4.0p	PLØ	TO51	
62	TMT839	150m	30M§	1.0m	§J	45	45 §	2.0	20m	1.0u	5.0Ø	1.0mØ	35	350nb	40	2.0	8.0p	ME†	u5	
63	TMT840	150m	30M§	1.0m	§J	45	45 §	2.0	20m	1.0u	5.0Ø	1.0mØ	70	350nb	40	2.0	8.0p	ME†	u5	
64	TMT842	150m	30M§	1.0m	§J	45	45 §	2.0	20m	1.0u	5.0Ø	10mØ	40 †	350nb	40	2.0	6.0p	MEΔ	u5	
65	2N841/51	150m	40M§	833u		45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	140	350nb	40	2.0	8.0p	ME†	TO51	
66	2N841/TPT	150m	40M§	833u		45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	140	350nb	40	2.0	8.0p	ME†	X31	
67	LDA408	150m	40M§	1.0m	♦A	40	30	4.0	25m	50n	1.0Ø	4.0m	60 †					PL	TO72	
68	TMT841	150m	40M§	1.0m	§J	45	45 §	2.0	20m	1.0u	5.0Ø	1.0mØ	140	350nb	40	2.0	8.0p	ME†	u5	
69	TMT843	150m	40M§	1.0m	§J	45	45 §	2.0	20m	1.0u	5.0Ø	10mØ	100 †	350nb	40	2.0	6.0p	MEΔ	u5	
70	2N746	150m	45M	1.0m	§J	45	30	1.0	20m	1.0uØ	20	1.0m	99	100nb	47	1.8	1.4p	PDΔ	u2	
71	2N908†	150m	45M	1.3m	§J	45		1.0	20m	50u	5.0Ø	10mØ	75 †	100nb	47	1.8	1.4p	PD	u10	
72	2N747†	150m	60.M	1.0m	§J	25	25 Ø	3.0	50m	.10uØ	5.0Ø	10mØ	45 †				4.0p	PD	u2	
73	JAN2N1199A	150m	75M§Δ	1.2m	$S	20	15	3.0		5.0u	1.0Ø	20mØ	12 †Δ				2.5pØ		R49	
74	2N1893/51	150m	80.MΔ	833u		120	80	7.0		.01uØ	10Ø	150mØ	80 †#	11u	2.8k	3.5	15pØ	PLΔ	TO51	
75	2N1893/TPT	150m	80.MΔ	833u		120	80	7.0		.01uØ	10Ø	150mØ	80 #†	11u	2.8k	3.5	15pØ	PLΔ	X31	
76	TMT696	150m	80M	833u	§J	60	40	5.0	200m#	1.0uØ	10	150m	40 †					ME	TO51	
77#	2SC267A	150m	90.M§		♦J	50	30	5.0	200m	5.0u	1.0Ø	20mØ	70 †				6.5p	PE	u23	
78	MCS2135	150m	100M§Δ	1.5m	♦J	75	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	80 Δ	50uØ	20 Ø	25 Ø	3pØ	EAΔØ	X38	
79	MCS2136	150m	100M§Δ	1.5m	♦J	75	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	150 Δ	50uØ	25 Ø	25 Ø	3pØ	EAΔØ	X38	
80	NS6112	150m	100M	1.2m	$J	10	10	4.0	100m	.01u	5.0	.10m	45 Δ				5.0p	PEØ	X16	
81	NS6113	150m	100M	1.2m	$J	10	10	4.0	100m	.01u	5.0	.10m	70 Δ				5.0p	PEØ	X16	
82	NS6114	150m	100M	1.2m	$J	10	10	4.0	100m	.01u	5.0	.10m	115 Δ				5.0p	PEØ	X16	
83	NS6115	150m	100M	1.2m	$J	10	10	4.0	100m	.01u	5.0	.10m	180 Δ				5.0p	PEØ	X16	
84	TMT697	150m	100M	833u	§J	60	40	5.0	200m#	1.0uØ	10	150m	75 †					ME	TO51	
85	2N772	150m	110M§	1.2m	$	25		3.0	100m		5.0Ø	10mØ	35 †				1.3p	DΔ	TO18	
86	2N770	150m	125M§	1.2m	$	20		3.0	100m		1.0Ø	20mØ	25 †				1.2p	D	TO18	
87	2N1199A	150m	125M§	1.2m	#A	20		3.0	100m	.70u	1.0Ø	20mØ	25				1.2p	DΔ	TO9	
88	2N1613/51	150m	130M	833u		75	50 §	7.0		.01uØ	10Ø	150mØ	80 †#	12.u	2.2k	3.6	25pØ	PLtΔ	TO51	
89	2N1613/TPT	150m	130M	833u		75	50 §	7.0		.01uØ	10Ø	150mØ	80 †#	12.u	2.2k	3.6	25pØ	PLtΔ	X31	
90	2N1663	150m	150M§	1.2m	$S	20		3.0	100m		1.0Ø	20m	50 †				1.5p	DΔ	TO9	
91	MT104	150m	150M	1.0m	§J	60		5.0		1.0u	10Ø	150mØ	40 †				20p	PE	u15	
92	NS6207†	150m	150M§Δ	1.2m	§J	45		5.0		200nØ	1.0Ø	150mØ	30 †#Δ				8.0pØ	E	X16	
93	NS6212	150m	150M§Δ	1.2m	$A	150	150	6.0		50nØ	10Ø	10mØ	50 †Δ				10pØ		X16	
94	2N1711/51	150m	160M	833u	§J	75	50 §	7.0		.01uØ	10Ø	150mØ	130 †	23.u	4.4k	7.3	25pØ	PLØΔ	TO51	
95	2N1711/TPT	150m	160M	833u		75	50 §	7.0		.01uØ	10Ø	150mØ	130 †	23.u	4.4k	7.3	25pØ	PLØΔ	X31	
96	2N771	150m	200M§	1.2m	$	20		3.0	100m		1.0Ø	20mØ	50 †				1.5p	DΔ	TO18	
97#	BFY37i	150m	200M§Δ	1.0m	§J	25	20	5.0	100m	.10uØ	10Ø	10mØ	35 †Δ				2.3p	PL	TO18	
98#	BFY37I	150m	200M§Δ	1.0m	§J	25	20	5.0	100m	100nØ	10Ø	10mØ	35 †Δ				2.3p	PL	TO18	
99	2N3131†	150m	250M§Δ	1.1m	§J	40	15	5.0	100m	25n#	1.0Ø	10mØ	30 †Δ				4.0pØ	P	X16	
100#	2SC100†	150m	300M§Δ		§J	40	15	5.0	200m	25nØ	1.0Ø	10mØ	30 †Δ				6.0pØ	PE	u23	C
101	2N706/TPT	150m	320MΔ	833u	§J	25	20 §	3.0		.05uØ	1.0Ø	10mØ	20 †#Δ				6pØ	D	X31	
102	2N706A/TPT	150m	320MΔ	833u		25	15	5.0		.05uØ	1.0Ø	10mØ	20				6pØ	D	X31	
103	2N2218/TPT	150m	400M§	833u		60	30	5.0		.01uØ	10Ø	150mØ	80 †				4.0p		X31	
104	2N2219/TPT	150m	400M§	833u		60	30	5.0		.01uØ	10Ø	150mØ	150 †				4.0p		X31	
105	A466	150m	400M§	1.0m	§J	40	30	4.0	25m	10u	10Ø	4.0m	60 †				1.3p	PLØ	TO72	J
106	MT106	150m	400M§	1.0m	§J	25		5.0		10u	1.0Ø	10mØ	40 †				4.5p	PE	u15	
107	MT107	150m	400M§	1.0m	§J	40		5.0		25nØ	1.0Ø	10mØ	30 Δ†				6.0p	PE	u15	
108	2N708/TPT	150m	480MΔ	833u		40	15	5.0		.02uØ	1.0Ø	10mØ	30 †#Δ				6pØ	PL	X31	
109	MT102	150m	500M	1.0m	§J	40	15	5.0		25n	1.0Ø	10mØ	50 †				6.0pØ	PEΔ	u15	
110	MT100	150m	750M	1.0m	§J	25	20 §	3.0		.50u	1.0Ø	10mØ	45 †				5.0p	PEΔ	u15	

SYMBOLS AND CODES
EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] MAX. COLL. DISS. @25°C (W)	[2] fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1	2N709/TPT	150m	800M§	833u		15	6.0	4.0		.05uØ	.5ØØ	10mØ	55 †				3pØ	PL	X31	
2	2N2369/TPT	150m	800MΔ	833u		40	15	4.5	500m	.40uØ	1.0Ø	10m	80 †				4pØ	PE	X31	
3	2N2594/TPT	150m	800MΔ	833u		40	15	4.5	500m	.40uØ	1.0Ø	10m	80 †				4pØ	PE	X31	
4	2N2784/TPT	150m	1.0G§	833u		15	6.0	4.0	500m	5nØ	.5ØØ	10mØ	120 †Ø				3pØ	PE	X31	
5	2N3633/51	150m	1.3G§	833u		15	6.0	4.0	50m	5nØ	.5ØØ	10mØ	150 †Ø				2.5pØ	PE	TO51	
6	2N3633/TPT	150m	1.3G§	833u		15	6.0	4.0	50m	5nØ	.5ØØ	10mØ	150 †Ø				2.5pØ	PE	X31	
7	K5011	150m	1.5G	1.1m	§J	25	12	25		50nØ	1.0Ø	3.0mØ	100 †				800f	D	TO50	C
8	K5010	150m	1.7G	1.1m	§J	25	12	25		50nØ	1.0Ø	3.0mØ	100 †				800f	D	TO50	C
9#	V327	150m	3.2G§	1.2m	§J	20	12	3.0	.50m	.50uØ	1.0Ø	30mØ	90 †#				.90p	PE	u23a	C
10#	BF115†	160m	270M§		§S	50	30	5.0	30m	.50u	10Ø	1.0mØ	165 †Ø					E	TO72	
11#	BF189	160m	300M§Δ	1.0m	J	50	30	5.0	25m		10Ø	1.0mØ	65 †Δ					PE	TO72	
12#	BF187	160m	500M§			40			25m									PE	TO18	
13	2N778	170m§		1.2m	$	20		2.0	100m		10Ø	2.0mØ	50				1.5p	D	TO18	
14#	FK2484	175m	60M§Δ	1.0m	§J	60	60	6.0	50m	10nØ	5.0Ø	1.0mØ	450 †				6.0pØ	DPLØ	u17b	
15#	FV2484	175m	60M§Δ	1.0m	§J	60	60	6.0	50m	10nØ	5.0Ø	1.0mØ	450 †				6.0pØ	DPLØ	u5b	
16#	FK3299†	175m	200M§Δ	1.0m	§J	60	30	5.0		10n§Ø	10Ø	150mØ	75 †#				8.0pØ	DPE	u17b	
17#	FV3299†	175m	200M§Δ	1.0m	§J	60	30	5.0		10n§Ø	10Ø	150mØ	75 †#				8.0pØ	DPE	u5b	
18#	FK3300†	175m	250M§Δ	1.0m	§J	60	30	5.0		10n§Ø	10Ø	150mØ	220 †#				8.0pØ	DPE	u17b	
19#	FV3300†	175m	250M§Δ	1.0m	§J	60	30	5.0		10n§Ø	10Ø	150mØ	220 †#				8.0pØ	DPE	u5b	
20#	FK914†	175m	300M§Δ	1.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	55 †#				6.0pØ	DPE	u17b	
21#	FK3014†	175m	300M§Δ	1.0m	§J	40	20	5.0		300n§Ø	.4ØØ	30mØ	60 †#				5.0pØ	DPE	u17b	
22#	FV914†	175m	300M§Δ	1.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	55 †#				6.0pØ	DPE	u5b	
23#	FV3014†	175m	300M§Δ	1.0m	§J	40	20	5.0		300n§Ø	.4ØØ	30mØ	60 †#				5.0pØ	DPE	u5b	
24#	FK2369A†	175m	500M§Δ	1.0m	§J	40	15	4.5	100m	400n§Ø	.4ØØ	30mØ	71 †#				4.0pØ	DPE	u17b	
25#	FV2369A†	175m	500M§Δ	1.0m	§J	40	15	4.5	100m	400n§Ø	.4ØØ	30mØ	71 †#				4.0pØ	DPE	u5b	
26#	FK918	175m	600M§Δ	1.0m	§J	30	15	3.0	50m	10nØ	1.0Ø	3.0mØ	50 †				2.0pØ	DPE	u17b	
27#	FV918	175m	600M§Δ	1.0m	§J	30	15	3.0	50m	10nØ	1.0Ø	3.0mØ	50 †				2.0pØ	DPE	u5b	
28	40350	180m				35												P	R92	Ø
29	40351	180m				35												P	R92a	Ø
30	40352	180m				35												P	R92a	Ø
31	BC167	180m*	300M§	2.2m	♦J		45	6.0	100m	.02u§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		PEØ	TO92	D
32	BC168	180m*	300M§	2.2m	♦J		20	5.0	100m	.02u§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		PEØ	TO92	D
33	BC169	180m*	300M§	2.2m	♦J		20	5.0	100m	.02u§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		PEØ	TO92	D
34	40470	180m	700M§	1.1m	§J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	170 †Ø				180f§		TO104	JØ
35	40471	180m	700M§	1.1m	§J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	100 †Ø				180f§		TO104	JØ
36	40469	180m	800M§	1.1m	§J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	170 †Ø				190f§	Ø	TO104	JØ
37	2N847†	200m		7.7m	§S	40	25	10	50m	.10uØ										
38	2N848†	200m		7.7m	§S	20	15	6.0	50m	.10uØ										
39	2N1082	200m		1.5m	§S	25	25 Ø	2.0	50m	.50u	5.0Ø	10mØ	10 Δ				5pØ	†	TO5	
40	JAN2N1082	200m		1.4m	§S	25	25 Ø	2.0	50m	500n	5.0Ø	10mØ	10 Δ				5.0pØ	†	TO5	
41	2N4086	200m		2.6m	♦S	12	12	5.0	100m	.10u	10Ø	2.0mØ	450 Ø				12pØ		TO98	
42	2N4087	200m		2.6m	♦S	12	12	5.0	100m	.10u	10Ø	2.0mØ	750 Ø				12pØ		TO98	
43	2N4087A	200m		2.6m	♦S	12	12	5.0	100m	.10u	10Ø	2.0mØ	250 Δ				12pØ	Ø	TO98	
44	4JX16A667	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	55 *Δ					PL	RO67	
45	4JX16A667/G	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	235 Δ					PL	RO67	
46	4JX16A667/O	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	90 Δ					PL	RO67	
47	4JX16A667/R	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	55 Δ					PL	RO67	
48	4JX16A667/Y	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	150 Δ					PL	RO67	
49	4JX16A668	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	90 *Δ					PL	RO67	
50	4JX16A668/G	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	235 Δ					PL	RO67	
51	4JX16A668/O	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	90 Δ					PL	RO67	
52	4JX16A668/Y	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	150 Δ					PL	RO67	
53	4JX16A669	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	150 *Δ					PL	RO67	
54	4JX16A669/G	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	235 Δ					PL	RO67	
55	4JX16A669/Y	200m		2.6m	#J	18	18	5.0	100m	.50u	10Ø	2.0mØ	150 Δ					PL	RO67	
56	4JX16B670/G	200m		2.6m	#J	18	18	5.0	200m	.50u	4.5Ø	2.0mØ	180 †Δ					PE	RO67	
57	4JX16B670/R	200m		2.6m	#J	18	18	5.0	200m	.50u	4.5Ø	2.0mØ	30 †Δ					PE	RO67	
58	4JX16B670/Y	200m		2.6m	#J	18	18	5.0	200m	.50u	4.5Ø	2.0mØ	75 †Δ					PE	RO67	
59#	BCY50	200m			♦J	10	5.0	3.0	200m	5nØ	1.5Ø	.10mØ	60 †Δ				5.0p	PL	TO18	
60	CDQ10035	200m			§S	15		2.0		500n	6.0	1.0m	45	400nb	25	5.0	20p	PL	TO5	Ø
61	CDQ10036	200m			§S	30		2.0		500n	6.0	1.0m	45	400nb	25	5.0	20p	PL	TO5	Ø
62	SA2254Ø	200m			§J	60	30			.01uØ	5.0Ø	.10mØ	45 †					PL	L2	
63	V120RH§	200m		1.0m	§J	20	10	4.0		40nØ	5.0Ø	1.0mØ	14 †				1.7p	PL	ZA15	
64	2N478A	200m	11.M	1.1m	§A	15						1.0mØ	60					GD		
65	ST15	200m	11M	909u	§	15		2.0		20n	6.0Ø	1.0m	50	60nb	65	5.0	7.0p			
66	ST35	200m	11M	909u	§	30		2.0		500n	6.0Ø	1.0m	50	60nb	65	5.0	7.0p			
67	ST45	200m	11M	909u	§	45		2.0		20n	6.0Ø	1.0m	50	60nb	65	5.0	7.0p			
68	2N541A	200m	15.M	1.1m	§A	15						1.0mØ	130					GD		
69	2N476A	200m	17.M			15						1.0mØ	45					GD		
70	2N477A	200m	17.M	1.1m	§A	30						1.0mØ	45					GD		
71	2N2161†	200m	20M	1.5m	§S	55	35	3.0	50m	10nØ	20	1.0mØ	75 Δ	1.0ub	55	20	3.0p		TO5	
72#	2SC166†	200m	20.M	1.6m	§J						12	3.0m	105 †				18p		TO1	
73#	2SC167†	200m	20.M	1.6m	§J						12	3.0m	105 †				18p		TO1	
74	2N751	200m	30.M	1.3m	§J	20	20 Ø	2.0	50m	.80uØ	6.0Ø	1.0m	2.2 Δ	170u	400		7.0p	PD†	u2	
75	CDQ10016	200m	30M§	1.1m	§A	15	15	2.0		500n	6.0	1.0m	16	400nb	25	2.1	20p	PL	TO5	Ø
76	CDQ10017	200m	30M§	1.1m	§A	30	30	2.0		500n	6.0	1.0m	16	400nb	25	2.1	20p	PL	TO5	Ø
77	CDQ10018	200m	30M§	1.1m	§A	45	45	2.0		500n	6.0	1.0m	16	400nb	25	2.1	20p	PL	TO5	Ø
78	CDQ10019	200m	30M§	1.1m	§A	15	15	2.0		500n	6.0	1.0m	30	400nb	25	2.2	20p	PL	TO5	Ø
79	CDQ10020	200m	30M§	1.1m	§A	30	30	2.0		500n	6.0	1.0m	30	400nb	25	2.2	20p	PL	TO5	Ø
80	CDQ10021	200m	30M§	1.1m	§A	45	45	2.0		500n	6.0	1.0m	30	b	25		20p	PL	TO5	Ø
81	CDQ10022	200m	30M§	1.1m	§A	15	15	2.0		500n	6.0	1.0m	60	b	25		20p	PL	TO5	Ø
82	CDQ10023	200m	39M§	1.1m	§A	30	30	2.0		500n	6.0	1.0m	60	200nb	25	3.0	20p	PL	TO5	Ø
83	CDQ10024	200m	39M§	1.1m	§A	45	45	2.0		500n	6.0	1.0m	60	200nb	25	3.0	20p	PL	TO5	Ø
84	CDQ10026	200m	39M§	1.1m	§A	30	30	2.0		500n	6.0	1.0m	130	150nb	25	3.6	20p	PL	TO5	Ø
85	CDQ10027	200m	39M§	1.1m	§A	45	45	2.0		500n	6.0	1.0m	130	150nb	25	3.6	20p	PL	TO5	Ø
86	2N750	200m	40.M	1.3m	§J	50	50 Ø	1.5	50m	.50uØ	6.0Ø	1.0m	4.0 Δ	200u	500		4.0p	PD†	u2	
87	2N748†	200m	50.M	1.0m	§J	30	30 Ø	3.0	50m	.10uØ	5.0Ø	10mØ	30 †				4.0p	PD	u2	
88	A643/LS*	200m	50M§Δ	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	150 †Ø				3.5p	PL*	ZA26	
89	A644/LS*	200m	50M§Δ	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	300 †Ø				3.5p	PL*	ZA26	
90	A645/LS*	200m	50M§Δ	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	600 †Ø				3.5p	PL*	ZA26	
91	A640*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	100 †Ø				3.5p	PL*Ø	X36a	
92	A641*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	200 †Ø				3.5p	PL*Ø	X36a	
93	A642*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	400 †Ø				3.5p	PL*Ø	X36a	
94	SA2255Ø	200m	60M§Δ		§J	45	30	7.0		5.0nØ	5.0Ø	50uØ	125 †					PL	L2	
95	2N749	200m	75.M	1.3m	§J	45		1.5	50m	.50uØ	6.0Ø	1.0m	7.0 Δ				4.0p	PD†	u2	
96	16L2	200m	80.M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	20 †Δ				3.5pØ	PLØ	RO67	
97	16L22	200m	80.M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	20 †Δ				3.5pØ	PLØ	RO67	
98	16L42	200m	80.M§	2.6m	#J	18	18	4.0	100m	.50u	4.5Ø	2.0mØ	20 †Δ				3.5pØ	PL	RO67	
99	16L62	200m	80.M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	20 †Δ				3.5pØ	PL	RO67	
100	16L3	200m	86.M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	35 †Δ				3.5pØ	PLØ	RO67	
101	16L23	200m	86.M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	35 †Δ				3.5pØ	PLØ	RO67	
102#	BC170	200m	100M§	2.0m	♦J	20	20	5.0	100m	.10uØ	1.0Ø	1.0mØ	100 †*				4p§	PL	X64	
103	16L4	200m	112M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	60 †Δ				3.5pØ	PLØ	RO67	
104	16L24	200m	112M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	60 †Δ				3.5pØ	PLØ	RO67	
105#	BC174	200m	120M§Δ	2.0m	♦J	64	64	5.0	100m	15nØ	5.0Ø	2.0mØ	125 Δ*					PE†	X64	A
106	D24A3391	200m	120M§	2.7m	#J	25	25	5.0	100m	100n	10Ø	100u	200	b	15		7.0p	PLØ	X54	
107	D24A3391A	200m	120M§	2.7m	#J	25	25	5.0	100m	100n	10Ø	100u	200	b	15		7.0p	PLØ	X54	
108	16L5	200m	124M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	100 †Δ				3.5pØ	PLØ	RO67	
109	16L25	200m	124M§	2.6m	#J	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	100 †Δ				3.5pØ	PLØ	RO67	
110	D16E7	200m	135M§				25				4.5Ø	2.0mØ	235 †Δ				2.5p	PL	TO98	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E M A P X	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	D16E9	200m	135M§				30				4.5Ø	2.0mØ	235 †Δ				2.5p	PL	TO98		
2	D24A3392	200m	140M§	2.7m	#J	25	25	5.0	100m	100n	4.5Ø	2.0mØ	150 †Δ	b	15		7.0p§	PL	X54		
3	D24A3393	200m	140M§	2.7m	#J	25	25	5.0	100m	100n	4.5Ø	2.0mØ	90 †Δ	b	15		7.0p§	PL	X54		
4	D24A3394	200m	140M§	2.7m	#J	25	25	5.0	100m	100n	4.5Ø	2.0mØ	55 †Δ	b	15		7.0p§	PL	X54		
5#	2SC361	200m	150M§	2.0m	♦J	25	18	5.0	40m	.50uØ	6.0Ø	2.0m	80				6pØ	PL	RO67		
6#	2SC362	200m	150M§	2.0m	♦J	25	18	5.0	40m	.50uØ	6.0Ø	2.0m	140				6pØ	PL	RO67		
7#	2SC363	200m	150M§	2.0m	♦J	25	18	5.0	40m	.50uØ	6.0Ø	2.0m	250				6pØ	PL	RO67		
8#	2SC376	200m	150M§	2.0m	♦J	70	70 §	4.0	100m	1.0uØ	6.0Ø	1.0m	60				2.5p	PE	RO67a		
9#	BC150	200m	160M§	2.7m	#J	18	18	5.0	100m	200n	10Ø	100uØ	350	23u	90k	60	12pØ	PLØ	TO98	B	
10#	BC151	200m	160M§	2.7m	#J	25	25	5.0	100m	200n	10Ø	1.0mØ	180	12u	5.0k	3.3	12pØ	PL	TO98	B	
11	D24A3900	200m	160M§	2.7m	#J	18	18	5.0	100m	100n	4.5Ø	2.0mØ	250 †Δ	b	15		7.0p	PLØ	X54		
12	D24A3900A	200m	160M§	2.7m	#J	18	18	5.0	100m	100n	4.5Ø	2.0mØ	250 †Δ	b	15		7.0p	PLØ	X54		
13	4JX16A567	200m	200M§	2.6m	#J	18	18	5.0	100m	500n	10Ø	2.0mØ	400 Δ	b	15		9.0p	Ø			
14#	BF216	200m	200M§	2.7m	#J	40	35	4.0	20m	500nØ	7.0Ø	1.0mØ	100				1.1pt	PEØ	TO98	B	
15	T2857	200m	200M	1.1m	§J	30	20	5.0		.10uØ	10Ø	2.0mØ	15 †Δ					PEØ	RO38		
16#	BF218	200m	220M§	2.7m	#J	40	35	4.0	20m	500nØ	7.0Ø	1.0mØ	100				1.1pt	PEØ	TO98	B	
17#	AT310	200m	230M§	1.4m	§J	45	30	5.0	30m	500n	12Ø	2.0m	40 †#Δ				3.5p	PL	TO1	A	
18#	AT311	200m	230M§	1.4m	§J	45	30	5.0	30m	500n	12Ø	2.0m	40 †#Δ				3.5p	PL	TO1	A	
19#	AT312	200m	230M§	1.4m	§J	45	30	5.0	30m	500n	12Ø	2.0m	100 †#Δ				3.5p	PL	TO1	A	
20#	AT313	200m	230M§	1.4m	§J	35	20	5.0	30m	500n	12Ø	2.0m	20 †#Δ				3.5p	PL	TO1	A	
21#	AT314	200m	230M§	1.4m	§J	35	20	5.0	30m	500n	12Ø	2.0m	40 †#Δ				3.5p	PL	TO1	A	
22#	AT315	200m	230M§	1.4m	§J	35	20	5.0	30m	500n	12Ø	2.0m	40 †#Δ				3.5p	PL	TO1	A	
23#	AT316	200m	230M§	1.4m	§J	35	20	5.0	30m	500n	12Ø	2.0m	100 †#Δ				3.5p	PL	TO1	A	
24#	BF217	200m	240M§	2.7m	#J	40	35	4.0	20m	500nØ	7.0Ø	1.0mØ	125				1.1pt	PE	TO98	B	
25	2N2954	200m	300M§Δ	1.1m	§J	30	20	3.0	500m	.05uØ	10Ø	2.0mØ	25 Δ				3.8				
26	2N3407	200m	300M§Δ	1.3m	§S	35	18	3.0	100m	.20uØ	10Ø	10mØ	10 Δ				2.5pØ	Ø	RO38		
27	2N3985	200m	300M§Δ	2.0m	§S	30	12	3.0	30m	.10uØ	10Ø	4.0mØ	20 †Δ				3p§Ø	Ø	TO92		
28	NS9728	200m	300M§Δ	1.3m	§A	30	15	4.0		.01uØ	1.0Ø	3.0mØ	60 †				.8pØ	EØ	RO38		
29	NS9729	200m	300M§Δ	1.3m	§A	20	10	4.0		.01uØ	1.0Ø	3.0mØ	60 †				.8pØ	EØ	RO38		
30	NS9730	200m	300M§Δ	1.3m	§A	15	10	4.0		.01uØ	1.0Ø	3.0mØ	60 †				.8pØ	EØ	RO38		
31	NS9731	200m	300M§Δ	1.3m	§A	10	5.0	4.0		.01uØ	1.0Ø	3.0mØ	60 †				.8pØ	EØ	RO38		
32	16J1†	200m	350M§	2.6m	#J	18	14	5.0	200m	.50u	1.0Ø	10mØ	30 †Δ				6pØ	PE	RO67		
33	16J2†	200m	350M§	2.6m	#J	18	14	5.0	200m	.50u	1.0Ø	10mØ	30 †Δ				6pØ	PE	RO67		
34	16K3	200m	380M§	2.6m	#J	30	30	4.0	25m	.50uØ	9.5Ø	5.0mØ	30 †Δ				1.5p	PLØ	TO98		
35	2N3984	200m	400M§Δ	2.0m	§S	30	12	3.0	30m	.10uØ	10Ø	4.0mØ	20 †Δ				2p§Ø	Ø	TO92		
36#	BSW78†	200m	400M§Δ	2.0m	♦J	40	15	4.5	200m	400nØ	1.0Ø	10mØ	20 †Δ#				4.0pØ	PE†	X64	A	
37	u7003	200m	450M§Δ	1.3m	§S	15	6.0	4.0		10u	.50Ø	10mØ	70 †				3pØ	D	TO51		
38	2N3983	200m	500M§Δ	2.0m	§S	30	12	3.0	30m	.10uØ	10Ø	4.0mØ	30 †Δ				2p§Ø	Ø	TO92		
39#	BSW80†	200m	500M§Δ	2.0m	♦J	40	15	4.5	200m	30uØ†	1.0Ø	10mØ	40 †Δ#				4.0pØ	PE†	X64	A	
40	D16G6	200m	500M§Δ	2.7m	#J	30	12	3.0	25m	500n	10Ø	5.0mØ	20 †Δ				1.2p§	PE	TO98	A	
41	D1666	200m	500M§	2.6m	♦S	30	12	3.0	25m	500n	10Ø	5.0mØ	20 †Δ				1.5pØ	Ø	TO98		
42	TIXS29	200m	500M§Δ	2.0m	§S	40	40	4.0	30m	.10uØ	10Ø	4.0mØ	30 †Δ					PLØ	X20		
43	TIXS30	200m	500M§Δ	2.0m	§S	40	40	4.0	30m	.10uØ	10Ø	4.0mØ	30 †Δ					PL	X20		
44	TIXS31	200m	500M§Δ	2.0m	§S	40	40	4.0	30m	.10uØ	10Ø	4.0mØ	30 †Δ					PL	X20		
45	ST2130	200m	550M§Δ	1.1m	§J	25	12	2.0		500nØ	1.0Ø	3.0mØ	20 †Δ				2.0pØ	PEØ	TO72	G	
46	D16K4	200m	580M§	2.6m	#J	30	30	4.0	25m	500nØ	9.5Ø	5.0mØ	110 †				1.8pØ	PLØ	TO98	B	
47	16K1	200m	585M§	2.6m	#J	30	30	4.0	25m	.50uØ	9.5Ø	5.0mØ	30 †Δ				1.5p	PL	TO98		
48	16K2	200m	585M§	2.6m	#J	30	30	4.0	25m	.50uØ	9.5Ø	5.0mØ	30 †Δ				1.5p	PL	TO98		
49	2N4081	200m	600M§Δ	1.1m	§S	40	40	3.0		20nØ	10Ø	2.0mØ	40 Δ				300f§	Ø	TO104	J	
50	2N4397	200m	600M§Δ	1.1m	§S	40	40	3.0		20nØ	10Ø	2.0mØ	40 Δ				300f§	Ø	TO104	J	
51#	BF188	200m	600M§	1.3m	§J	50	50	5.0	50m	.01uØ	20Ø	10mØ	25 †Δ					PE	TO72		
52	TI410	200m	600M§	2.0m	♦J	25	13	3.0	30m	.50uØ	12Ø	10mØ	20 †Δ				1.7pØ	PE	X20		
53#	ZT918	200m	600M§Δ			30	15	3.0					20 †Δ				1.7pØ	Ø	RO38		
54	TIXS28	200m	630M§Δ	2.0m	§S	40	40	4.0	30m	.10uØ	10Ø	4.0mØ	30 †Δ					PLØ	X20		
55	D16K1	200m	650M§				30				4.5Ø	4.0mØ	60 †				1.4p	PL	TO98		
56	D16K2	200m	650M§				30				4.5Ø	4.0mØ	60 †				1.4p	PL	TO98		
57	D16K3	200m	650M§				30				4.5Ø	4.0mØ	60 †				1.4p	PL	TO98		
58	S5328E	200m	900M§	1.1m	▼J	30	15	3.0		.10uØ							1.2p	PE	RO38		
59	ST2110	200m	950M§Δ	1.1m	§J	25	12	2.0		500nØ	5.0Ø	8.0mØ	20 †Δ				2.0pØ	PEØ	TO18	AØ	
60	TC0918	200m	960MΔ	1.1m	§J	30	15	3.0		.01uØ	3.0Ø	30mØ	20 †Δ				1.7pØ	PEΔ			
61	2N2808	200m	1.0G*	1.1m	§J	30	10	3.0	25m	.01uØ	1.0Ø	2.0mØ	20 †Δ				.7pØ	PLØ	RO38		
62	2N2809	200m	1.0G*Δ	1.1m	§J	30	15	3.0	25m	.01uØ	6.0Ø	2.0mØ	20 Δ		250 Ø		.7pØ	Ø	RO38		
63	2N2810	200m	1.0G*Δ	1.1m	§J	24	10	3.0	25m	.01uØ	6.0Ø	2.0mØ	20 Δ		250 Ø		.7pØ	Ø	RO38		
64	A489	200m	1.0G§	1.1m	J	28	15	2.5	20m		1.0Ø	3.0mØ	20 †Δ				1.7 §Ø		TO72	G	
65	ST2120	200m	1.0G§Δ	1.1m	§J	30	15	4.0		5.0nØ	1.0Ø	3.0mØ	50 †Δ				1.7pØ	PEØ	TO72	G	
66	2N2809A	200m	1.3G*Δ	1.1m	§J	30	15	3.0	25m	.01uØ	6.0Ø	2.0mØ	20 Δ		250 Ø		.7pØ	Ø	RO38		
67	2N2810A	200m	1.3G*Δ	1.1m	§J	24	10	3.0	25m	.01uØ	6.0Ø	2.0mØ	20 Δ		250 Ø		.7pØ	Ø	RO38		
68	2N2808A	200m	1.5G*Δ	1.1m	§J	30	10	3.0	25m	.01uØ	6.0Ø	2.0mØ	20 Δ		250 Ø		.7pØ	Ø	RO38		
69	TIX09	200m	1.5G§	1.1m	§S	30	15	3.0	50m	.01uØ	6.0Ø	5.0mØ	20 Δ				1.7pØ	PE	u26		
70	TIX10	200m	1.5G§	1.1m	§S	25	13	3.0	50m	.01u	6.0Ø	5.0mØ	20 Δ				1.7pØ	PE	u26		
71	TIXS09	200m	1.5G§	1.0m	§S	30	15	3.0	50m	10nØ	6.0Ø	5.0mØ	20 Δ				1.5pØ	PE	u26		
72	TI3016	200m	1.7G§	1.1m	§J	30	15	3.0	30m	.01u	6.0Ø	5.0mØ	20 †Δ				1.7pØ	PE	TO50		
73	TIX3016	200m	1.7G§	1.1m	§S	30	15	3.0	50m	.01uØ	6.0Ø	5.0mØ	20 †Δ				1.7pØ	EPØ	u26a		
74	TIX3016A	200m	1.7G§	1.1m	§J	30	15	3.0	30m	10n	6.0Ø	5.0mØ	20 †Δ				1.7pØ	PE	u26		
75#	V415	200m	3.0G§	1.6m	§J	28	15	3.0	60m	.50uØ							.50p	PE	X63	GD	
76	A747C	220m	600k§	2.0m	♦J		50	6.0	100m		5.0Ø	2.0mØ	600				2.5p§	PE†	MM10	A	
77	A757	220m	130M	2.0m		50	45	5.0	200m		5.0Ø	2.0mØ	140 †					PE	MM10		
78#	BC429	225m	.50M	2.2m	§J	60	60	30	50m	.10uØ	6.0Ø	1.0mØ	10 Δ	30u	1.0k	3.0	45p	AØ	TO5		
79	A472	230m	550M§	1.5m	§J	40	35 §	4.0	25.m	uØ	10	7.0m	150 †					PLEØ	TO72	J	
80	2N959	250mØ			§J	25	15	5.0		.50u	10Ø	10mØ	2.0				7pØ	ME	u5		
81	CK398	250m		1.7m	§J	120	120	8.0	50m	.50uØ	1.0Ø	5.0mØ	20 †Δ					PDΔ	TO5		
82	PMT115	250m		1.3m	§J	80	50 §	8.0		.50uØ	10Ø	150m	40 †Δ				18pØ	ME	u6		
83	PMT124	250mØ		2.0m	§J	30	20 §	5.0		1.0u	10Ø	150mØ	20 #Δ				45pØ	MEΔ	u6		
84	PMT224	250mØ		2.0m	§J	30	20 §	5.0		1.0u	10Ø	150mØ	20 #Δ				45pØ	MEΔ	TO51		
85	2N619	250m	.20M	1.9m	$	50		20	50m	.10u	1.5Ø	5.0mØ	14				65p	A			
86	2N1074	250m	.20M	1.9m	$	50		20	50m	1.0u	5.0Ø	5.0mØ	14				65p	A			
87	2N620	250m	.30M	1.9m	$	50		20	50m	.10u	1.5Ø	5.0mØ	25				65p	A			
88	2N1075	250m	.30M	1.9m	$	50		20	50m	1.0u	5.0Ø	5.0mØ	25				65p	A			
89	2N1077	250m	.30M	1.9m	$	50		20	50m	1.0u	5.0Ø	5.0mØ	18				65p	A			
90	2N621	250m	.40M	1.9m	$	50		20	50m	.10u	1.5Ø	5.0mØ	50				65p	A			
91	2N1076	250m	.40M	1.9m	$	50		20	50m	1.0u	5.0Ø	5.0mØ	50				65p	A			
92#	EW721	250m	.80M	2.0m	§J	45		1.0	25m	1.0u	6.0Ø	1.0mØ	15	.50u	45	2.0	5.5				
93	PMT220	250mØ	6.0M	1.7m	§J	45		1.0	25m	2.0u	5.0	1.0m	63				1.0p	GD	TO51		
94#	2SC192	250m	10.M		§J	60		1.0	10m	2.0u	20	1.0m	21	.15u	60	1.2	3.0p	G	TO5		
95#	2SC195	250m	10.M		§J	30		1.0	10m	1.0u	20	1.0m	21	.15u	60	1.2	3.0p	G	TO5		
96	CK419	250m	10.MΔ	1.9m	§J	50	40	5.0	50m	.10uØ	1.5Ø	5.0mØ	15 †				5.0p	PDΔ	TO5		
97	CK420	250m	10.MΔ	1.9m	§J	50	35	5.0	50m	.10uØ	1.5Ø	5.0mØ	30 †				5.0p	PD†Δ	TO5		
98	CK421	250m	10.MΔ	1.9m	§J	50	30	5.0	50m	.10uØ	1.5Ø	5.0mØ	60 †				5.0p	PD†Δ	TO5		
99	CK422	250m	10.MΔ	1.9m	§J	50	35	5.0	50m	.10uØ	1.5Ø	5.0mØ	25 †				10p	PDØΔ	TO5		
100	CK474	250m	10.MΔ	1.9m	§J	50	40	5.0	50m	1.0uØ	5.0Ø	5.0mØ	15	7.5u	1.0k		5.0p	PD	TO5		
101	CK475	250m	10.MΔ	1.9m	§J	50	35	5.0	50m	1.0uØ	5.0Ø	5.0mØ	28	10u	1.7k		5.0p	PD	TO5		
102	CK476	250m	10.MΔ	1.9m	§J	50	30	5.0	50m	1.0uØ	5.0Ø	5.0mØ	60	15u	1.7k		5.0p	PD	TO5		
103	CK477	250m	10.MΔ	1.9m	§J	50	35	5.0	50m	1.0uØ	5.0Ø	5.0mØ	25	10u	2.5k		5.0p	PD	TO5		
104	801B	250m	20M§Δ	2.0m	§A	45		3.0	20m	1.0u	20	1.0m	50 Δ	1.0uØb	55	20 Ø	4.0pØ		TO5	A	
105#	ST721	250m	20M	2.0m	§J	45			25m	10u	6.0Ø	1.0mØ	15	500nb	45	2.0	5.5p	DtΔ	R3		
106	USAF501ES001M†	250m	20M§Δ	2.0m	§J	45	30	3.0	20m	1.0u	20Ø	1.0m	50 Δ	1.0uØb	80 Ø	20 Ø	4.0pØ	GD	TO39		
107#	EW722	250m	23.M	2.0m	§J	45		1.0	25m	1.0u	6.0Ø	1.0mØ	30	.45u	45	4.0	5.5				
108#	ST722	250m	23M	2.0m	§J	45			25m	10u	6.0Ø	1.0mØ	30	450nb	45	4.0	5.5p	DtΔ	R3		
109#	EW723	250m	28.M	2.0m	§J	45		1.0	25m	1.0u	6.0Ø	1.0mØ	50	.40u	50	5.0	5.5				

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1#	ST723	250m	28M	2.0m	§J	45				25m	10u	6.0Ø	1.0mØ	50	400nb	50	5.0	5.5p	D†Δ	R3		
2#	2SC193	250m	30.M		§J	60			1.0	10m	2.0u	20	1.0m	21	.15u	60	1.2	3.0p	G	TO5		
3#	2SC196	250m	30.M		§J	30			1.0	10m	1.0u	20	1.0m	21	.15u	60	1.2	3.0p	G	TO5		
4	CS929	250m	30M§Δ				45	45	5.0		10u	5.0Ø	1.0mØ	60 Δ	1.0nb	32 Ø	6.0 Ø	8.0pØ	PLØ	R97a		
5	CS930	250m	30M§Δ				45	45	5.0	30m	10u	5.0Ø	1.0mØ	150 Δ	1.0uØb	32 Ø	6.0 Ø	8.0	PLØ	R97a		
6	USAF518ES066M*																					
7	USAF519ES067M	250m	30M§Δ	1.4m	§J			70	7.0	30m	10nØ	5.0Ø	1.0mØ	155 Δ	1.0uØb	32 Ø	8.0 Ø	8.0pØ	DPL*	TO89		
		250m	30M§Δ	1.4m	§J	70	45		7.0	30m	10nØ	5.0Ø	1.0mØ	155 Δ	1.0uØb	32 Ø	8.0 Ø	8.0pØ	DPL*	X34		
8	USAF519ES068M																					
		250m	30M§Δ	1.4m	§J	70	45		7.0	30m	10nØ	5.0Ø	1.0mØ	155 Δ	1.0uØb	32 Ø	8.0 Ø	8.0pØ	DPL*	X34		
9	2N2673	250m	40M	1.6m	§S	60	45		3.0	25m	100nØ	5.0Ø	1.0mØ	8.0 †Δ	1.0uØb	60	7.5	4.0pØ		TO46		
10	2N2674	250m	40M	1.6m	§S	60	45		3.0	25m	100nØ	5.0Ø	1.0mØ	12 †Δ	1.0uØb	60	7.5	4.0pØ		TO46		
11	2N2675	250m	40M	1.6m	§S	60	45		3.0	25m	100nØ	5.0Ø	1.0mØ	22 †Δ	1.0uØb	60	7.5	4.0pØ		TO46		
12	2N2676	250m	40M	1.6m	§S	60	45		3.0	25m	100nØ	5.0Ø	1.0mØ	45 †Δ	1.0uØb	60	7.5	4.0pØ		TO46		
13	GME4001	250m	40M§Δ	2.0m	§J	30	25		8.0		.05uØ	10Ø	1.0mØ	60 †Δ				3pØ	DPL	X45		
14	2N2677	250m	50M	1.6m	§S	45	35		2.0	25m	100nØ	5.0Ø	10mØ	20 †Δ	1.0uØb	60	7.5	3.0pØ		TO46		
15#	2SC18	250m	50.M	1.7m	§J	20	20 Ø		2.0	30m	.10uØ	6.0Ø	1.0mØ	12 †				6.0p	PL	TO18		
16#	2SC191	250m	50.M		§J	60			1.0	10m	2.0u	20	1.0m	21	.15u	60	1.2	3.0p	G	TO5		
17#	2SC194	250m	50.M		§J	60			1.0	10m	2.0u	20	1.0m	21	.15u	60	1.2	3.0p	G	TO5		
18#	2SC197	250m	50.M		§J	30			1.0	10m	1.0u	20	1.0m	21	.15u	60	1.2	3.0p	G	TO5		
19#	BCY51I	250m	50M§Δ	1.6m	§J	30	20		5.0	100m	50nØ	1.5Ø	100nØ	60 †Δ	10u	4.2k	25		PL	TO18		Ø
20#	BFY51I	250m	50M§Δ	1.7m	§J	30	20		5.0	100m	.05uØ	1.5Ø	.10mØ	60 †Δ								
21#	BCY50I	250m	60M§Δ	1.6m	§J	10	5.0		3.0	100m	5.0nØ	1.5Ø	100nØ	60 †Δ	10u	4.2k	25		PL	TO18		Ø
22#	BFY50I	250m	60M§Δ	1.6m	§J	10	5.0		3.0	100m	5.0nØ	1.5Ø	100uØ	60 †Δ	10u	4.2k	25		PL	TO18		
23	CS2483	250m	60M§Δ			60	60		6.0	50m	.01uØ	5.0Ø	.01mØ	40 †Δ				6pØ	PE	R97a		
24	GME4002	250m	60M§Δ	2.0m	§J	30	25		8.0		.05uØ	10Ø	1.0mØ	200 †Δ				3pØ	DPL	X45		
25	GME4003	250m	60M§Δ	2.0m	§J	30	25		8.0		.05uØ	10Ø	1.0mØ	300 †Δ				3pØ	DPLØ	X45		
26	2N2678	250m	70M	1.6m	§S	45	35		2.0	25m	100nØ	5.0Ø	10mØ	45 †Δ	1.0uØb	60	7.5	3.0pØ		TO46		
27	MT696	250m	80.M§	1.7m	§J	60			5.0		1.0u	10Ø	150mØ	40 †				20p	PE	u13		
28	MT697	250m	80.M§	1.7m	§J	60			5.0		1.0u	10Ø	150mØ	80 †				20p	PE	u13		
29	MT698	250m	80.M§	1.7m	§J	120			7.0		2.0u	10Ø	150mØ	40 †				15p	PE	u13		
30	MT699	250m	80.M§	1.7m	§J	120			5.0		2.0u	10Ø	150mØ	80 †				14p	PE	u13		
31	MT1613	250m	80.M§	1.7m	§J	75			7.0		.01u	10Ø	150mØ	80				18p	PL	u13		
32	MT1711	250m	80.M§	1.7m	§J	75			7.0		.01u	10Ø	150mØ	200 †				25p	PE	u13		
33	2N1060†	250m	100M	2.0m	§J			40 Ø	5.0	50m	100nØ	5.0Ø	10mØ	50				7.6p	D	TO28		
34#	2SC16	250m	100M§Δ	1.7m	§J	25		20 §	5.0	30m	2.5uØ	1.0Ø	10mØ	25 †				7pØ	PL	TO18		
35#	2SC16A	250m	100M§Δ	1.7m	§J	25		20 §	5.0	30m	1.0uØ	1.0Ø	10mØ	30 †				7pØ	PL	TO18		
36	MT870	250m	100M§	1.7m	§J	100			7.0		.01u	10Ø	150mØ	80 †				15p	PE	u13		
37	MT871	250m	100M§	1.7m	§J	100			7.0		.01u	10Ø	150mØ	200 †				15p	PE	u13		
38	MT910	250m	100M§	1.6m	§J	100			7.0		25n	5.0Ø	1.0mØ	100 †				15p	PE	u13		
39	MT911	250m	100M§	1.6m	§J	100			7.0		25n	5.0Ø	1.0mØ	50 †				15p	PE	u13		
40	MT912	250m	100M§	1.6m	§J	100			7.0		25n	5.0Ø	1.0mØ	30 †				15p	PE	u13		
41	MT1893	250m	100M§	1.7m	§J	120			7.0		.01u	10Ø	150mØ	80 †				15pØ	PE	u13		
42#	2SC17	250m	150M§	1.7m	§J	20		20 §	5.0	50m	2.5uØ	6.0Ø	2.0mØ	30				4.0p	PL	TO18		
43#	2SC17A	250m	150M§	1.7m	§J	25		20 §	5.0	50m	1.0uØ	10Ø	10m	30				4.0p	PL	TO18		
44#	2SC360	250m	150M§		§J	30	18		5.0	100m	1.0uØ	10Ø	10m	100				7pØ	PL	TO18		
45#	BFY39i	250m	150M§	1.7m	§J	45	25		5.0	100m	.05u	10Ø	10mØ	35 †Δ	8.0u	3.2k	30	5.0p	PL	TO18		
46#	BFY39I	250m	150M§	1.6m	§J	45	25		5.0	100m	50n	10Ø	10mØ	35 †Δ	8.0u	3.2k	30	5.0p	PL	TO18		
47	PMT218	250mØ	150M	1.7m	§J	60			5.0		1.0u	10Ø	150mØ	75 †				20p	MEΔ	TO51		
48	PMT219	250mØ	150M	1.7m	§J	60			5.0		1.0u	10Ø	150mØ	75 †				20p	MEΔ	TO51		
49	2N958	250m	200M		§J	25	15		5.0		10u	10Ø	10mØ	2.0 Δ				7pØ	ME	u5		
50	2N2214	250mØ	200M		§J	25	15		5.0		5.0nØ	1.0Ø	10mØ	2.0 Δ				7.0pØ	PL	TO51		
51#	2SC103	250m	200M§Δ	1.7m	§J	25		20 §	5.0	50m	1.0uØ	1.0Ø	10mØ	35 †				7pØ	PL	TO18		
52	GME2001	250m	200M§Δ	2.5m	♦J	35	20		4.0		.05uØ	1.0Ø	10mØ	40 †Δ				5pØ	DPL	X45		
53	GME2002	250m	200M§Δ	2.5m	♦J	35	20		4.0		.05uØ	1.0Ø	10mØ	100 †Δ				5pØ	DPL	X45		
54	MT753	250m	200M	1.7m	§J	25			5.0		.50u	1.0Ø	10mØ	80				5.0p	ME	u13		
55	PMT1787M	250mØ	200M	7.7m	§J	25			5.0	200m	.50u	10Ø	.10mØ	40 †Δ				5.0p	PL	u7		
56	PMT1787T	250mØ	200M	7.7m	§J	25			5.0	200m	.50u	10Ø	.10mØ	40 †Δ				5.0p	PL	u7		
57#	2SC103A†	250m	250M§	1.7m	§J	30		20 §	5.0	80m	.10uØ	1.0Ø	10mØ	80 †				4.0p	PL	TO18		
58#	2SC104	250m	250M§	1.7m	§J	25		20 §	5.0	50m	1.0uØ	10Ø	10m	32				4.0p	PL	TO18		
59#	2SC323	250m	250M§	1.7m	§J	40	20		5.0	100m	1.0uØ	1.0Ø	10mØ	90 †				3.0p	PE	TO18		
60	CS2481†	250m	300M§Δ			40	15		5.0			1.0Ø	10mØ	40 †#Δ		60 Ø		5pØ	DEΔ	R97a		
61	GME1001	250m	300M§	2.5m	♦J	45	45		4.0		.05uØ	10Ø	10mØ	40 †Δ				2.5pØ	DPLØ	X45		
62	GME1002	250m	300M§	2.5m	♦J	45	45		4.0		.05uØ	10Ø	10mØ	100 †Δ				2.5pØ	DPLØ	X45		
63	GME9021†	250m	300M§Δ	2.5m	♦J	40	15		5.0		.05uØ	1.0Ø	10mØ	30 †Δ				6pØ	PE	X45		
64	GME9022†	250m	300M§Δ	2.5m	♦J	25	12		4.0		.50uØ	1.0Ø	10mØ	30 †Δ				6pØ	PE	X45		
65	MT706	250m	300M§	1.7m	§J	25			3.0		.50u	1.0Ø	10mØ	20 †				5.0p	ME	u13		
66	MT706A	250m	300M§	1.7m	§J	25			5.0		.50u	1.0Ø	10mØ	40 †				5.0p	ME	u13		
67	MT706B	250m	300M§	1.7m	§J	25			5.0		.50u	1.0Ø	10mØ	40 †				5.0p	ME	u13		
68	MT707	250m	300M§	1.7m	§J	56			3.0		5.0u	1.0Ø	10mØ	9.0 †Δ				5.0p	ME	u13		
69	MT708	250m	300M§	1.6m	§J	40			5.0		25n	1.0Ø	10mØ	45 †				6.0p	PL	u13		
70	NS2525	250m	300M§	2.0m	§A	45	30		4.0		500nØ	1.0Ø	150mØ	50 †				5.0p		ZA21		
71	TI419	250m	300M§Δ	2.5m	♦J	30	30		6.0	30m	.50uØ	5.0Ø	1.0mØ	90 †Δ				5pØ	PEØ	X20		
72	GME9001†	250m	400M§Δ	2.5m	♦J	40	15		4.5		.50uØ	1.0Ø	10mØ	40 †Δ				4pØ	PE	X45		
73	GME9002†	250m	400M§Δ	2.5m	♦J	30	12		4.5		.50uØ	1.0Ø	10mØ	30 †Δ				4pØ	PE	X45		
74	MT743	250m	400M§	1.7m	§J	20			5.0			.35Ø	10mØ	40 †				5.0p	E	u13		
75	MT744	250m	400M§	1.7m	§J	20			5.0			.35Ø	10mØ	80 †				5.0p	E	u13		
76	PMT221	250mØ	400M	1.7m	§J	25			5.0	220m	30u	1.0Ø	10mØ	80 †				5.0p		TO51		
77	GME3001	250m	600M§Δ	2.5m	♦J	30	12		2.0		.05uØ	10Ø	8.0mØ	20 †Δ				3.5pØ	PEØ	X45		
78	CS2368†	250m	640M Δ			40	15		4.5	500m	.40uØ	1.0Ø	10mØ	40 †				4pØ	PEΔ	R97a		
79	PMT123	250mØ	750M	1.7m	§J	25		20 §	3.0		.50u	1.0Ø	10mØ	20 #Δ				6pØ	ME	u6		
80	PMT223†	250mØ	750M	1.7m	§J	25		20 §	3.0		.50u	1.0Ø	10mØ	20 #Δ				6pØ	ME	TO51		
81	GME3002	250m	900M§Δ	2.5m	♦J	30	12		2.0		.05uØ	10Ø	8.0mØ	20 †Δ				3pØ	PEØ	X45		
82	CS918	250m	960M Δ			30	15		3.0		.01uØ	3.0Ø	30mØ	20 †Δ				1.7pØ	PEØΔ	R97a		
83	A431*	250m	1.0G§Δ	1.4m	§J	20	10		2.5	50m		1.0Ø	5.0mØ	25 †Δ				1ptØ	PE	L29a		
84#	96EP†	280m	250M§Δ	588u	♦J	70	30		5.0	1	.50uØ	5.0Ø	150mØ	30 †Δ#				10pØ	PE†	u46		A
85	2N1763†	300m		500u	§S	40	25		10	50m	.10uØ									TO5		
86	2N1764†	300m		500u	§S	20	15		6.0	50m	.10uØ									TO5		
87	A104	300m		2.0m	§J	20	20		4.0	30m	100n	5.0Ø	100uØ	200 †					PLØ	TO18		A
88	A106	300m		2.0m	§J	20	20		4.0	30m	100n	5.0Ø	5.0mØ	150 †					PL	TO18		A
89	A108	300m		2.0m	§J	20	20		4.0	30m	100n	5.0Ø	5.0mØ	220 †					PL	TO18		A
90	A110	300m		2.0m	§J	20	20		4.0	30m	100n	5.0Ø	5.0mØ	620 †					PL	TO18		A
91	A111	300m		2.0m	§J	20	20		4.0	30m	100n	5.0Ø	20mØ	360 †					PE	TO18		A
92	A116	300m		2.0m	§J	20	20		4.0	30m	100n	5.0Ø	100uØ	200 †					PLØ	TO18		A
93	NS345	300m			§A		35		7.0		.20uØ	1.0Ø	10mØ	140				5pØ	MEΔ	TO18		
94#	SPC50Ø	300m			§S	20			6.0	50m								4pØ	PE	RO38		
95#	SPC51Ø	300m			§S	20			6.0	50m								4pØ	PE	RO38		
96#	SPC52Ø	300m			§S	20			6.0	50m								4pØ	PE	RO38		
97#	ST503	300m		500u	§S	25	12		4.5		100nØ	1.0Ø	10mØ	20 †Δ					PE	TO18	Ø	
98#	ST504	300m		500u	§S	30	12		4.5		100nØ	1.0Ø	10mØ	20 †Δ					PE	TO18	Ø	
99	ST1607	300m				40	20		2.0		2.0uØ	5.0Ø	10mØ	120 Δ				4.0pØ		TO18		Ø
100	ST1633	300m				70	70		2.0	50m	5.0u	10Ø	5.0mØ	80	50u	1.5k	1.0	10pØ	PL	TO18		
101	UC900	300m		2.0m	§J	45	45		7.0	30m	250n	5.0Ø	10uØ	400 †Δ				7.0pØ	PLØ	TO18		A
102	V220†	300m		1.7m	§J	15	10		40		5nØ	5.0Ø	.10mØ	70 †Δ				3pØ	PE	ZA18		
103	V221†	300m		1.7m	§J	15	10		40		5nØ	5.0Ø	.10mØ	110 †Δ				3pØ	PE	ZA18		
104	V222†	300m		1.7m	§J	15	10		4.0		5nØ	5.0Ø	.10mØ	140 †Δ				3pØ	PE	ZA18		
105#	TK71	300m	2.0M	2.0m	§J	30			15			9.0Ø	3.0mØ	30				25p	AΔ			
106#	TK72	300m	2.0M	2.0m	§J	15			10			9.0Ø	3.0mØ	25				25p	AΔ			
107#	TK70	300m	5.5M	2.0m	§J	30			15			9.0Ø	3.0mØ	50				25p	AΔ			

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	HVT200	300m	6.0M	333u		200	200	6.0		200u	7.0	5.0mØ	20				6.0p	ME	TO46	
2	HVT400	300m	6.0M	333u		400	300	6.0		200u	7.0	5.0mØ	20				6.0p	ME	TO46	
3	HVT600	300m	6.0M	333u		600	400	6.0		200u	7.0	5.0mØ	25				6.0p	ME	TO46	
4	HVT800	300m	6.0M	333u		800	400	6.0		200u	7.0	5.0mØ	30				6.0p	ME	TO46	
5	HVT900	300m	6.0M	333u		900	400	6.0		200u	7.0	5.0mØ	30				6.0p	ME	TO46	
6	HVT1000	300m	6.0M	333u		1.0k	400	6.0		200u	7.0	5.0mØ	30				6.0p	ME	TO46	
7	2N3462	300m	10M§Δ	2.0m	§S	50	35	5.0	30m	10u	5.0Ø	1.0mØ	150 Δ	100uØ	20kØ		6.0pØ	Ø	TO18	Ø
8	BSY68	300m	20M§Δ			120		5.0	50m			10mØ	20 †						TO5	
9	2N929/51	300m	30M§Δ	1.6m	§J	45	45	5.0	30m	10u	5.0Ø	1.0mØ	60 Δ	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	TO51	
10	2N930/51	300m	30M§Δ	1.6m	§J	45	45	5.0	30m	10u	5.0Ø	1.0mØ	150 Δ	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	TO51	
11	ST1700	300m	30M§Δ	1.6m	§J	60	30	5.0		20nØ	5.0Ø	10mØ	80 †Δ	1.0uØb	32 Ø		8.0pØ	PLØ	TO18	AØ
12	2N841/46	300m	40M§	2.3m	§J	45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	140	350nb	40	2.0	8.0p	MEt	TO46	
13#	SDD421	300m	40M§Δ	2.5m	§S	50	30	8.0	300m	100u	15Ø	6.0mØ	30 Δ	50u	650		40p		TO46	
14	2N3463	300m	45M§Δ	2.0m	§S	60	45	6.0	30m	2.0n	5.0Ø	1.0mØ	150 Δ	100uØ	14kØ		6.0pØ	Ø	TO18	AØ
15	11C702	300m	50M§Δ	2.0m	§J	60	40	5.0	1.0	10nØ	10Ø	150mØ	100 †Δ				20pØ	PE	TO50	
16	11C704	300m	50M§Δ	2.0m	§J	80	50	8.0	1.0	10nØ	10Ø	150mØ	40 †Δ				20pØ	PE	TO50	
17	11C710	300m	50M§Δ	2.0m	§J	120	80	7.0	1.0	10nØ	10Ø	150mØ	40 †Δ#				15pØ	PE	TO50	
18#	BCY51	300m	50M§Δ	2.0m	§J	30	20	5.0	100m	50nØ	1.5Ø	100nØ	60 †Δ	10u	4.2k	25		PL	TO18	Ø
19#	ST54†	300m	50M§Δ		§S	20	20	5.0	100m	50nØ	.40Ø	1.0mØ	30 †Δ				10pØ	PEΔ	TO18	Ø
20	A133	300m	60M§Δ	2.0m	§J	120	80	5.0		20u#	3.0Ø	4.0mØ	20 †Δ				3.6p		TO18	AØ
21	A323	300m	60M	2.0m		30	30	5.0	30m	100n	5.0	10m	300 †					PL	TO18	A
22	A324	300m	60M	2.0m		30	30	5.0	30m	100n	5.0	10m	400 †				3.5p	PL	TO18	A
23#	SDD821	300m	70M§Δ	2.5m	§S	50	30	6.0	100m	100u	15Ø	6.0mØ	30 Δ	100u	700		20p		TO46	
24	CS718†	300m	80MΔ			60	40 §	5.0		1.0uØ	10Ø	150mØ	40 Δ#	12u	2.2k	3.6	35pØ	D	R97a	
25	CS720A	300m	80MΔ			120	80	7.0		10nØ	10Ø	150mØ	40 †#Δ	500nØb	30 Ø	1.3 Ø	15pØ	PLΔ	R97a	
26	2N2297/51	300m	96.MΔ	1.7m	§J	80	35	7.0		.01uØ	10Ø	150mØ	40 †#Δ	3.5u	1.3k	1.0	1.2pØ	PE	TO51	
27	CS718A	300m	96MΔ			75	50 §	7.0		10nØ	10Ø	150mØ	40 †#Δ	500nØb	34 Ø	3.0 Ø	25pØ	PLt	R97a	
28	2N1958/18†	300m	100M§Δ		§J	60	40 §	5.0	500m	.50u	10Ø	150mØ	40 Δ#				18pØ	E	TO18	AØ
29	2N1959/18†	300m	100M§Δ		§J	60	40 §	5.0	500m	.50u	10Ø	150mØ	80 Δ#				18pØ	E	TO18	AØ
30	2N1959A/51†	300m	100M§	1.7m	§J	60	40 §	5.0	1	.20uØ	10Ø	1 Ø	25 Δ				14pØ	D	TO51	
31	2N2571	300m	100M§Δ	2.0m	§J	20	15	15		10nØ	10Ø	100mØ	50 †Δ				10p		TO18	Ø
32	2N2572	300m	100M§Δ	2.0m	§J	20	15	15		10nØ	10Ø	100mØ	50 †Δ				10p		TO18	Ø
33	TI411	300m	100M§Δ	3.3m	J	50	30	5.0	800m	500nØ	2.0Ø	50m	180 †Δ				12pØ	PE	X20	
34	CS956	300m	110MΔ			75	50 §	7.0		10nØ	10Ø	150mØ	100 †Δ#	500nØb	34 Ø	5.0 Ø	25pØ	PLØ	R97a	
35	D11C702	300m	130M§	1.7m	§A		40	5.0		15u	10Ø	150mØ	100 †Δ					PE	TO50	
36	D11C704	300m	130M§	2.0m	§A		50	8.0		25u	10Ø	150mØ	40 †Δ					PE	TO50	
37	D11C710	300m	130M§	1.7m	§A		80 §	7.0		15u	10Ø	150mØ	40 †Δ					PE	TO50	
38	2N728†	300m$	150M	4.0m	§S	15	15	3.0		5.0u	10Ø	10m	7.5				8.0p	ME	TO18	
39	2N729†	300m$	150M	4.0m	§S	30	30	3.0		5.0u	10Ø	10m	7.5				8.0p	ME	TO18	
40	2N4099*	300m	150M§Δ	1.6m	§S	55	55	7.0	10m	100nØt	5.0Ø	1.0mØ	175 †Δ				800fØ		L2m	
41	2N706A/51†	300m	200M§Δ	2.5m	§J	25	15	5.0		10u	1.0Ø	10mØ	20				3.5p	ME	TO46	
42	2N706C/51†	300m	200M§Δ	1.6m	§J	40	15	5.0	200m	1.0uØ	1.0Ø	10mØ	20 †#Δ				5.0pØ	E	TO51	
43	2N753/51†	300m	200M§Δ	2.5m	§J	25	20 §	5.0	200m	500nØ	1.0Ø	10mØ	40 †Δ				5.0pØ	E	TO51	
44	2N2397†	300m	200M§	1.7m	§J	35	20 §	5.0	200m	.10uØ	1.0Ø	10mØ	25 †Δ				5pØ	EM	TO51	A
45	2N2719	300m	200M§	2.0m	§J	25	8.0	3.0	200m		.50Ø	60mØ	30 †Δ				6pØ	Δ	TO18	
46	40218†	300m	200M§	2.0m	§J	25	20 §	5.0	50m	500nØ	1.0Ø	10mØ	20 †Δ				5.0pØ	PE	TO52	Ø
47	40222†	300m	200M§Δ	2.0m	§J	25	20 §	3.0	200m	30nØ	1.0Ø	10mØ	20 †Δ				6.0pØ	PE	TO52	Ø
48#	BF169	300m	200M§Δ	2.0m		20	15	5.0		10u	10Ø	10mØ	35 †Δ				6.0pØ	E	TO18	Ø
49	NS200	300m	200M§	1.7m	§A	25		5.0	100m		5.0Ø	10mØ	15 †				5.0p	ME	TO18	
50#	PEP9	300m	200M§Δ	2.0m	§J	40	20	5.0	200m#	50nØ	.40Ø	10mØ	40 †Δ				6.0pØ	PEΔ	TO18	
51#	ST51†	300m	200M§Δ		§S	25	15	6.0	100m	50nØ	.35Ø	10mØ	40 †Δ				6.0pØ	PEΔ	TO18	Ø
52#	TK255A	300m	200M§Δ		§J	20	15	6.0	100m	25nØ	9.0Ø	10mØ	2.0 Δ				6.0pØ	PLE	TO18	
53#	TK256A	300m	200M§Δ		§J	20	15	6.0	100m	25nØ	9.0Ø	10mØ	2.0 Δ				6.0pØ	PLE	TO18	
54#	TK264A	300m	200M§Δ		§J	40		3.0	100m	.01uØ	9.0Ø	10mØ	25 Δ				5.5pØ	PL	TO18	
55	A157	300m	250M§	2.0m	§J		45	5.0	100m		5.0Ø	2.0mØ	300	22u	4.8k	2.5	4.5p$	PEØ	TO18	A
56	A158	300m	250M§	2.0m	§J		20	5.0	100m		5.0Ø	2.0mØ	300	22u	4.8k	2.5	4.5p$	PEØ	TO18	A
57	A747	300m	250M	2.0m			45	5.0	100m		5.0	2.0m	210					PE	MM10	A
58	A748	300m	250M§	2.0m	§J		20	5.0	100m		5.0Ø	2.0mØ	300	22u	4.8k	2.5		PEØ	MM10	A
59#	ST01	300m	250M§Δ	500u	§S	35	14	5.0		50n	1.0Ø	10mØ	35 †Δ				12pØ	PEΔ	TO18	Ø
60#	ST501†	300m	270M§Δ	500u	§S	25	15	4.5		25nØ	1.0Ø	10mØ	22 †Δ					PEΔ	TO18	Ø
61#	ST502†	300m	270M§Δ	500u	§S	35	15	6.0		25nØ	1.0Ø	10mØ	50 †Δ					PEΔ	TO18	Ø
62	JAN2N851†	300m	300M§Δ	2.0m	▼S	20	12	5.0	200m		.35Ø	10mØ	20 †Δ				5.0pØ		TO50	
63	JAN2N852†	300m	300M§Δ	2.0m	▼S	20	12	5.0	200m		.35Ø	10mØ	60 †Δ				5.0pØ		TO50	
64	2N988	300m	300M§Δ	2.0m	§J	20	10	3.0	200m	.50uØ	1.0Ø	10mØ	20 †Δ				4.0p	PE	TO18	
65	2N989	300m	300M§Δ	2.0m	§J	20	10	3.0	200m	.50uØ	1.0Ø	10mØ	20 †Δ				3.5p	PE	TO18	
66	2N1708A†	300m	300M§Δ	2.0m	§J	40	15	5.0	500m	25nØ	1.0Ø	10mØ	30 †Δ				6.0pØ		TO46	Ø
67	2N2319	300m	300M§	1.7m		30		5.0		1.0u	.40Ø	20m	40 †				5.0p		TO46	
68	2N3310	300m	300M§Δ	1.7m	§J	35	15	3.0	200m	.01uØ	2.0Ø	20mØ	10 †Δ				3pØ		TO38	
69	A157C	300m	300M§	2.0m	§J		45	5.0	100m		5.0Ø	2.0mØ	450 Δ				4.5p$	PE	TO18	A
70	A159	300m	300M§	2.0m	§J		20	5.0	100m		5.0Ø	2.0mØ	500	22u	7.3k	3.5	4.5p$	PEØ	TO18	A
71	A344†	300m	300M§Δ	2.0m	§J	20	15	5.0	100m	.10u	.35Ø	10mØ	30 †Δ				5pØ	PE	TO18	A
72	A345†	300m	300M§Δ	2.0m	§J	20	15	5.0	100m	.10u	.35Ø	10mØ	30 †Δ				5pØ	PE	TO18	A
73	A346†	300m	300M§Δ	2.0m	§J	20	15	5.0	100m	.10u	.35Ø	10mØ	40 †Δ				5pØ	PE	TO18	A
74	A749	300m	300M§	2.0m	§J		20	5.0	100m		5.0Ø	2.0mØ	500	44u	7.3k	3.5		PEØ	MM10	A
75	NS381	300m	300M	2.0m	§	25	20	5.0	100m	.10u	.40Ø	3.0mØ	40 †				5pØ	EΔ	TO18	
76	NS382	300m	300M	2.0m	§	25	20	5.0	100m	.10u	.40Ø	3.0mØ	80 †				5pØ	EΔ	TO18	
77	NS383	300m	300M	2.0m	§	20	12	5.0	100m	.10u	.40Ø	3.0mØ	30 †				5pØ	EΔ	TO18	
78	NS384	300m	300M	2.0m	§	20	12	5.0	100m	.10u	.40Ø	3.0mØ	80 †				5pØ	EΔ	TO18	
79#	PEP2†	300m	300M	2.0m		25	15	5.0	200m	500n	1.0	10m	20				6.0p	PE	TO18	
80#	PEP5†	300m	300MΔ	2.0m	§A	25	15	5.0	200m	50n	1.0Ø	10mØ	40 Δ				6.0p	PE	TO18	
81#	PEP6†	300m	300MΔ	2.0m	§A	40	15	5.0	200m	50n	1.0Ø	10mØ	40 Δ				6.0p	PE	TO18	
82#	PEP7†	300m	300MΔ	2.0m	§A	25	15	5.0	200m	50n	1.0Ø	10mØ	40 Δ				6.0p	PE	TO18	
83#	PEP8†	300m	300MΔ	2.0m	§A	40	15	5.0	200m	50n	1.0Ø	10mØ	40 Δ				6.0p	PE	TO18	
84#	ST53†	300m	300M§Δ		§S	25	12	5.0		25nØ	1.0Ø	10mØ	40 †Δ				6.0pØ	PEΔ	TO18	Ø
85#	ST55†	300m	300M§Δ		§S	40	15	6.0		25nØ	1.0Ø	10mØ	40 †Δ				6.0pØ	PEΔ	TO18	Ø
86#	ST56†	300m	300M§Δ		§S	25	20	5.0		25nØ	1.0Ø	10mØ	40 †Δ				6.0pØ	PEΔ	TO18	Ø
87#	ST57†	300m	300M§Δ		§S	15	10	4.0		100n	.50Ø	10mØ	40 †Δ				6.0pØ	PEΔ	TO18	Ø
88#	TK257A	300m	300M§Δ		§	30		3.0	100m	25nØ	9.0Ø	10mØ	25 Δ				4.0pØ	PL	TO18	
89#	TK258A†	300m	300M§	2.0m	§J	15	12	3.0	100m	.05uØ	0.0	10m	20 †Δ				5.0p	PE	TO18	
90#	TK259A†	300m	300M§	2.0m	§J	15	12	3.0	100m	.05uØ	0.0	10m	40 †Δ				5.0p	PE	TO18	
91#	ZT190†	300m	300M§Δ	2.4m	§A	20	15	5.0	200m	200n	.40Ø	10mØ	50 †Δ				6.0p	PLØ	TO18	Ø
92#	ZT191†	300m	300M§Δ	2.0m	§A	20	20	5.0	200m	50nØ	.40Ø	10mØ	35 †				10p	PLØ	TO18	Ø
93#	ZT192†	300m	300M§Δ	2.0m	§A	40	20	5.0	200m	50nØ	.40Ø	10mØ	38 †Δ				6.0p	PLØ	TO18	Ø
94#	ZT193†	300m	300M§Δ	2.0m	§A	40	20	5.0	200m	50nØ	.40Ø	10mØ	75 †Δ				6.0p	PLØ	TO18	Ø
95	40220†	300m	350M§Δ	2.0m	§J	40	30 Ø	5.0	200m	500nØ	1.0Ø	10mØ	25 †Δ				4.0pØ	PE	TO52	Ø
96	2N706B/51†	300m	400M§Δ	2.5m	§J	25	20 §	5.0		10u	1.0Ø	10mØ	40 †				4.5p	ME	TO51	
97	2N743/51†	300m	400M§	2.5m	§J	20	12	5.0	200m		.35Ø	10mØ	40 †				5pØ	EM	TO51	
98	2N744/51†	300m	400M§	2.5m	§J	20	12	5.0	200m		.35Ø	10mØ	80 †				5pØ	EM	TO51	
99	2N2217/51†	300m	400M§	1.7m	§J	60	30	5.0		.01uØ	10Ø	150mØ	40 †				4.0p	PE	TO51	
100	2N2218/51†	300m	400M§	1.7m	§J	60	30	5.0		.01uØ	10Ø	150mØ	80 †				4.0p	PE	TO51	
101	2N2219/51†	300m	400M§	1.7m	§J	60	30	5.0		.01uØ	10Ø	150mØ	150 †				4.0p	PE	TO51	
102	2N2967†	300m	400M§Δ	1.7m	§J	12	6.0	4.0		50nØ	.50Ø	10mØ	20 †Δ				3.0p	Δ	TO18	Ø
103#	2SC83†	300m	400M§	2.0m	§J	25	20 Ø	3.0	50m	1.0uØ	1.0Ø	10mØ	15 †Δ				4.5p	ME	TO18	
104#	97EPA†	300m	400M§Δ	3.0m	♦J	20	12	5.0	50m	.40u	1.0Ø	10mØ	10 Δ†				4pØ	PLt	u46	A
105#	97EPB†	300m	400M§Δ	3.0m	♦J	20	12	5.0	50m	.40u	1.0Ø	10mØ	40 Δ†				4pØ	PLt	u46	A
106	40217†	300m	400M§	2.0m	§J	25	20 §	3.0		500nØ	1.0Ø	10mØ	20 †Δ				5.0p	PE	TO52	Ø
107#	BFY28	300m	400M§	2.0m	§J	60	30	6.0	100m	10u	9.0Ø	10mØ	110				4.0p	PLØ	TO18	
108	CS2221†	300m	400M§			60	30	5.0		.01uØ	10Ø	150mØ	80 †#				4.0p		R97a	
109	CS2222†	300m	400M§			60	30	5.0		.01uØ	10Ø	150mØ	150 †#				4.0p		R97a	
110#	P346†	300m	400M§Δ	2.0m	§J	15	10	3.0	500m	500nØ	2.0Ø	10mØ	25 †Δ				4.5pØ	PE	TO18	Ø

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N835/51†	300m	450M§	2.5m	§J	25	20	3.0	200m	.50uØ	1.0Ø	10mØ	40 †				2.8p	ME	TO51	
2#	2SC396	300m	450M§	2.0m	§J	40	20 §	5.0	200m	.10uØ	1.0Ø	10mØ	200 †Ø				3.0p	PE	TO18	
3	2N834/51†	300m	500M§	2.5m	§J	40	30	5.0	200m	.50uØ	1.0Ø	10mØ	40 †				2.8p	ME	TO5	
4	MM1943	300m	500M§Δ	2.0m	§J	40	40 Ø	3.0	200m	100nØ	.10Ø	10mØ	50 †				4.0pØ	E	TO18	Ø
5	ST6110†	300m	500M	1.6m	§J	10	5.0	3.0	50m	50n	.50Ø	10mØ	20					PE	TO18	
6#	78EP†	300m	600M§Δ	3.0m	♦J	15	6.0	4.0	200m#	.05uØ	.40Ø	20mØ	30 Δ†				3pØ	PL†	u46	A
7#	ST71	300m	600M§Δ		§S	25	15	3.0		10nØ	1.0Ø	3.0mØ	20 †Δ				3.0pØ	PE	TO18	Ø
8#	ST72	300m	600M§Δ		§S	25	15	3.0		10nØ	1.0Ø	3.0mØ	50 †Δ				3.0pØ	PE	TO18	Ø
9	2N2368/51†	300m	640MΔ	1.7m	§J	40	15	4.5	500m	.40uØ	1.0Ø	10m	40 †				4pØ	PEΔ	TO51	
10	40404	300m	700M§	2.0m	§A	40	16	5.0	500m	25nØ	2.0Ø	50mØ	65 †Ø				4.0pØ	PE	TO52	AØ
11	2N709/52†	300m	800M§Δ	1.7m	§J	15	6.0	4.0		.05uØ	.50Ø	10mØ	55 †				3pØ	PE	TO52	
12	2N709A/51†	300m	800M§	1.6m	§J	15	6.0	4.0		5.0nØ	.50Ø	10mØ	60 †				3.0pØ		TO51	
13	2N917/51	300m	800MΔ	1.6m	§J	30	15	3.0		1.0nØ	1.0Ø	3.0mØ	20 †Δ				1.7pØ	PLΔ	TO51	
14	2N2369/51†	300m	800MΔ	1.7m	§J	40	15	4.5	500m	.40uØ	1.0Ø	10m	80 †				4pØ	PE	TO51	
15	2N2475/51†	300m	800M§	1.7m	§J	15	6.0	4.0		10u	.40Ø	20mØ	50 †				2.4p	PE	TO51	A
16	ST6125	300m	800M§Δ	1.6m	§J	10	5.0	3.0		50nØ	.50Ø	10mØ	20 †Δ				3.0p	PEΔ	TO18	Ø
17	S5327E	300m	900M§	1.7m	♥J	30	15	3.0		.10uØ							2.2p	PE	TO18	
18	2N918/51	300m	960MΔ	1.7m	§J	30	15	3.0		.01uØ	3.0	30mØ	20 †Δ				1.7pØ	PEØΔ	TO51	
19	2N2784/51†	300m	1.0G§	1.7m	§J	15	6.0	4.0		5nØ	.50Ø	10mØ	120 †Ø				3pØ	PE	TO51	A
20	2N2784/52†	300m	1.0G§Δ	1.7m	§J	15	6.0	4.0		5nØ	.50Ø	10mØ	120 †Ø				3pØ	PE	TO52	
21	ST6120†	300m	1.0G§	1.6m	§J	10	5.0	3.0	50m	50nØ	.50Ø	10mØ	20					PE	TO18	
22	2N709/51†	300m	1.2G	1.7m	§J	15	6.0	4.0		.05uØ	.50Ø	10mØ	55 †				3pØ		TO51	
23	2N3633/52†	300m	1.3G§Δ	1.7m	§J	15	6.0	4.0		5nØ	.50Ø	10mØ	50 †Δ		30 Ø		2.5pØ	PE	TO52	
24	D33K1	330m		3.3m		50	30	5.0	1.0	200n	1.0	500m	35				9.0p		TO98	B
25	D33K2	330m		3.3m		70	40	5.0	1.0	200n	1.0	500m	35				9.0p		TO98	B
26	D33K3	330m		3.3m		80	50	5.0	1.0	200n	1.0	500m	35				9.0p		TO98	B
27	RT730M†	350m	20.M	2.3m	§J	60		5.0		1.0uØ	10Ø	150mØ	40 †				35pØ	PL	TO46	
28	RT731M†	350m	20.M	2.3m	§J	60		5.0		1.0uØ	10Ø	150mØ	80 †				35pØ	PL	TO46	
29#	ZT27	350m	70M§Δ	2.8m		100	100	6.0	50m	.50uØ	6.0Ø	10mØ	38 †Δ						TO5	
30	RT910M	350m	96MΔ	2.0m	§J	100	60	7.0		25nØ	5.0Ø	1.0mØ	125	130nb	16	750m	15 Ø	PL	TO18	
31	FM2242†	350m	250M§Δ	2.0m	§J	40	15	5.0	225m	100nØ	1.0Ø	10mØ	40 †Δ				6.0pØ	PE	TO46	Ø
32	USAF522ES075M†	350m	250M§Δ	1.4m	§J	35	20	5.0	200m	20nØ	10Ø	10mØ	30 Δ					PLE	X34	
33	USAF522ES076M†	350m	250M§Δ	1.4m	§J	35	20	5.0	200m	20nØ	10Ø	10mØ	30 Δ					PLE	X34	Δ
34	USAF523ES077M†	350m	250M§Δ	1.4m	§J	35	18	5.0	200m	100nØ	10Ø	10mØ	30 Δ					PLE	X34	
35	USAF523ES078M†	350m	250M§Δ	1.4m	§J	35	18	5.0	200m	100nØ	10Ø	10mØ	30 Δ					PLE	X34	Δ
36	2N1992†	350m	430M§	2.0m	§		15	6.0	50m	500n	2.0	1.0m	70	500nb	30	11	5.0pØ	EΔ	TO18	Ø
37	NS9710	350m	1.0G§	2.0m	ØJ	30	20	4.0	100m	10uØ	10Ø	4.0mØ	30 Δ	65u	475	2.7	1.0p	PE	TO72	G
38	ME495	360m		2.0m	§J	40		5.0		1.0uØ	5.0Ø	10mØ	120 †Δ					PL	TO18	
39#	SPC42Ø	360m			§S	25	10	6.0		50n								PE	TO18	Ø
40	PT703	360m	30.M	2.0m	§J	25	25 §	5.0	200m	5.0uØ			80 Ø					PE	TO18	
41#	ST250	360m	40M§Δ		§S	60	40 §	6.0		100nØ	10Ø	150mØ	40 †#Δ				25pØ	PE	TO18	Ø
42#	ST251	360m	60M§Δ		§S	60	40 §	5.0		10nØ	10Ø	150mØ	100 †#Δ				25pØ	PE	TO18	Ø
43	TC2483	360m	60M§Δ	2.0m	§J	60	60	6.0	50m	.01uØ	5.0Ø	.01mØ	40 †Δ	30uØ	13 Ø	8 Ø	6pØ	PE		
44	TC2484	360m	60M§Δ	2.0m	§J	60	60	6.0	50m	.01uØ	5.0Ø	.01mØ	100 †Δ	40uØ	24 Ø	8 Ø	6pØ	PE		
45	ME900A	360m	100M§Δ	2.0m	§J	40	20	5.0		10nØ	5.0Ø	100uØ	70 †Δ	1.0ub	32 Ø	10 Ø	6.0pØ	PLØ	TO18	
46	ME901A	360m	100M§Δ	2.0m	§J	40	20	5.0		10nØ	5.0Ø	100uØ	175 †Δ	1.0ub	32 Ø	10 Ø	6.0pØ	PLØ	TO18	
47	NS1900	360m	100M§Δ	2.0m	§A	100	60	10		1.0n	5.0Ø	10u	200 †				5.0pØ	DØ	TO18	
48#	ST06	360m	100M§Δ		§S	50	35	5.0		20nØ	5.0Ø	10mØ	80 †Δ				6.0pØ	PEΔ	TO18	Ø
49	GME6003	360m	150M§Δ	3.6m	♦J	25	25	4.0		.10uØ	5.0Ø	50mØ	30 †Δ				12pØ	P§Δ	X45	
50	PET6003	360m	150M			25	25	4.0	500m	.10uØ	5.0Ø	50mØ	100 †				12pØ	PE	TO18	
51#	BC152	360m	180M§	2.8m	§J	35	35	5.0	500m	500n	10Ø	1.0mØ	220	14u	6.1k	2.9		PE	TO98	B
52#	BC180	360m	180M§	2.8m	§J	45	45	5.0	500m	500n	10Ø	1.0mØ	210	13u	5.9k	2.7		PE	TO98	B
53	GME6001	360m	200M§Δ	3.6m	♦J	40	30	5.0		.05u§Ø	1.0Ø	50mØ	30 †Δ				10pØ	PE	X45	
54	GME6002	360m	200M§Δ	3.6m	♦J	40	30	5.0		.05u§Ø	1.0Ø	50mØ	75 †Δ				10pØ	PE	X45	
55	LDS208†	360m	200M§Δ	2.9m	§J	60	30	5.0	300m	10nØ	10Ø	300mØ	30 †#Δ				8.0pØ	PE	u34	A
56	C63	360m	250M§Δ	2.0m	§A	50	35	5.0		25nØ	5.0	10mØ	35 †Δ				3.0pØ	PL	TO18	
57	C64	360m	250M§Δ	2.0m	§A	50	35	5.0		25nØ	5.0	10mØ	65 †Δ				3.0pØ	PL	TO18	
58	LDS206†	360m	250M								5.0Ø	1.0mØ	100 †				6.0p		TO122	P
59	PPT720	360m	250M§Δ	2.0m	§J	25	15	5.0	200m	.50uØ	10Ø	.10mØ	40 †Δ				5.0p	PL	TO46	
60	PT2760	360m	250M§Δ	2.0m	§J	35	20	4.0	200m	15uØ	10Ø	1.0mØ	40 †Δ				5.0p	PE†	TO18	
61#	ST43	360m	250M§Δ		§S	75	50	5.0		25nØ	5.0Ø	10mØ	100 †#Δ				5.0pØ	PEΔ	TO18	Ø
62	2N784A/46†	360m	300M§	2.0m	§J	40	20 §	5.0	200m	100u	1.0Ø	10mØ	88 †				3.5pØ	E	TO46	AØ
63	2N784A/51†	360m	300M§Δ	2.0m	♥J	40	20 §	5.0	200m	100u	1.0Ø	10mØ	88 †				3.5pØ		TO51	AØ
64	2N914A†	360m	300M§Δ	2.0m	§S	40	15	5.0		5.0nØ	1.0Ø	10mØ	30 †Δ#				6.0pØ		R64	Ø
65	2N2272†	360m	300M§Δ	2.0m	§J	40	15	5.0	500m	25nØ	1.0Ø	10mØ	60 †Δ#				6.0pØ		TO18	Ø
66	2N4421†	360m	300M§Δ	2.8m	§S	30	12	5.0	200m	500n§	.40Ø	30mØ	25 †Δ#				5.0p$Ø	†	X55	A
67#	2SC62†	360m	300M§Δ	2.0m	§J	40	15	5.0	50m	.02uØ	10Ø	10mØ	3.0				6.0p	PL	TO18	
68	40219†	360m	300M§Δ	2.0m	§J	40	15	5.0		30nØ	1.0Ø	10mØ	30 †Δ				6.0pØ	PE	TO52	Ø
69	40221†	360m	300M§Δ	2.0m	§J	40	15	5.0		30nØ	1.0Ø	10mØ	30 †Δ				6.0pØ	PE	TO52	Ø
70#	ST02†	360m	300M§Δ		§S	40	20	5.0		20nØ	1.0Ø	10mØ	20 †Δ				6.0pØ	PEΔ	TO18	Ø
71#	ST03†	360m	300M§Δ		§S	40	20	5.0		20nØ	1.0Ø	10mØ	20 †Δ				6.0pØ	PEΔ	TO18	Ø
72#	ST04†	360m	300M§Δ		§S	40	20	5.0		20nØ	1.0Ø	10mØ	40 †Δ				6.0pØ	PEΔ	TO18	Ø
73#	ST05†	360m	300M§Δ		§S	40	20	5.0		20nØ	1.0Ø	10mØ	100 †Δ				6.0pØ	PEΔ	TO18	Ø
74#	ST58†	360m	300M§Δ		§S	40	15	5.0		25nØ	1.0Ø	10mØ	30 †#Δ				6.0pØ	PEΔ	TO18	Ø
75#	ST59†	360m	300M§Δ		§S	40	15	5.0		25nØ	1.0Ø	10mØ	30 †#Δ				9.0pØ	PEΔ	TO18	Ø
76	2N4420†	360m	350M§Δ	2.8m	§S	40	20	5.0	200m	500n§	.40Ø	30mØ	30 †Δ#				5.0p$Ø	†	X55	A
77	2N4422†	360m	350M§Δ	2.8m	§S	40	15	5.0	200m	500n§	.40Ø	30mØ	30 †Δ#				5.0p$Ø	†	X55	A
78#	ST64†	360m	350M§Δ		§S	40	20	5.0		50nØ	1.0Ø	1.0mØ	30 †#Δ				4.0pØ	PEΔ	TO18	Ø
79#	BSX19Ø†	360m	400M§Δ	2.1m	§J	40	15	4.5	500m#	.40uØ	1.0Ø	10mØ	20 †Δ					PE	TO18	AØ
80	PMT117	360m	400M	1.7m	§J	25	15	5.0	220m	10u	10Ø	10m	4.0				5.0p	ME	u6	
81	PMT217	360m	400M	1.7m	§J	25	15	5.0	220m	10u	10Ø	10m	4.0				5.0p	ME	TO51	
82#	ST60†	360m	400M§Δ		§S	40	15	5.0		50nØ	1.0Ø	10mØ	30 †#Δ				4.0pØ	PEΔ	TO18	Ø
83#	ST61†	360m	400M§Δ		§S	40	15	5.0		50nØ	1.0Ø	10mØ	20 †#Δ				4.0pØ	PEΔ	TO18	Ø
84#	ST62†	360m	400M§Δ		§S	40	15	5.0		50nØ	1.0Ø	10mØ	40 †#Δ				4.0pØ	PEΔ	TO18	Ø
85#	ST80†	360m	400M§Δ		§S	40	15	5.0	200m	50nØ	1.0Ø	10mØ	25 †#Δ				4.0pØ	PEΔ	TO18	Ø
86	ST6130	360m	400M§Δ	2.0m	§J	25	10	4.0		50nØ	1.0Ø	10mØ	30 †Δ				4.0pØ	PEΔ	TO18	AØ
87	2N708/46†	360m	480MΔ	2.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	30 Δ				6.0pØ	PL	TO46	
88	2N708/51†	360m	480MΔ	2.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	30 Δ				6.0pØ	PL	TO51	A
89	2N914/51	360m	480MΔ	2.0m	§J	40	15	5.0		.02uØ	1.0Ø	10mØ	30 †#Δ				6pØ	PEΔ	TO51	AØ
90	FT1341	360m	480MΔ	2.0m	§J	25	10	5.0		.10uØ	1.0Ø	100mØ	30 †#Δ				8pØ	PLEΔ	TO18	
91	TC0914	360m	480MΔ	2.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	55 †#				4.5p	PE		
92#	BSX20Ø†	360m	500M§Δ	2.1m	§J	40	15	4.5	500m#	.40uØ	1.0Ø	10mØ	40 †Δ					PE	TO18	AØ
93#	ST82†	360m	500M§Δ	476u	§S	40	15	4.5	500m	400nØ	1.0Ø	10mØ	50 †#Δ				4.0pØ	PEΔ	TO18	Ø
94	2N3682	360m	600M§Δ	2.0m	§C	40	15	4.5	200m	400nØ	1.0Ø	10mØ	120 †Ø				4.0pØ		TO18	Ø
95#	ST70	360m	600M§Δ		§S	30	15	3.0		10nØ	1.0Ø	3.0mØ	20 †Δ				2.0pØ	PE	TO18	Ø
96	FT1324C	360m	640MΔ	2.0m	§J	25	10	4.5	500m	.40uØ	1.0Ø	10mØ	20 †#Δ				5pØ	PLEΔ	R64	
97#	2SC613†	360m	750M§		§J	40	15	5.0	200m	.10u	1.0Ø	10mØ	80 †				1.5p	PE	TO18	
98	NS9726§	360m	750M§	2.0m	§A	45	30	4.0		.10uØ	10Ø	10mØ	150 †Δ				3.5pØ	PE	R038w	
99	FT1324B	360m	800MΔ	2.0m	§J	25	10	4.5	500m	.40uØ	1.0Ø	10mØ	40 †Δ#				5pØ	PLEΔ	R64	
100	TC2369A†	360m	800MΔ	2.0m	§J	40	15	4.5	500m	.40uØ	1.0Ø	10mØ	40 †Δ				4pØ	PE		
101	2N622	385m	.30M	2.6m	§		30			.10u	1.5	.50m	22				35p	A		
102	CDQ10032	385m	500k	2.8m	§A	30	30	20	50m	100n	.50	100uΔ	25	40u	1.7k		20p	PL†	TO5	Ø
103	RT1252M	400m		2.3m	§J	30		5.0		10uØ	10Ø	150mØ	35 †#				30p	PL	TO46	
104	RT1253M	400m		2.3m	§J	30		5.0		10uØ	10Ø	150mØ	45 †#				30p	PLΔ	TO46	
105	RT1409M	400m		2.3m	§J	30		4.0		10uØ	10Ø	150mØ	45 †#Ø				20p	PLΔ	TO46	
106	RT1410M	400m		2.3m	§J	45		4.0		10uØ	10Ø	150mØ	90 †#Ø				20p	PLΔ	TO46	

SYMBOLS AND CODES
EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N930A/46	400m	30M§Δ	3.0m	§J	60	45	6.0	30m	2.0nØ	5.0Ø	1.0mØ	150	1.0ub	28	6.0	4.0p	PLØ	TO46	
2	2N2517	400m	30.M§	2.3m	§S	125	80	8.0	50m	5nØ	5.0Ø	1.0m	15 Δ		1.2k		6.0p		TO46	
3	NS475	400m	80MΔ	2.2m	§	30	30	6.0	50m	200n	5.0	1.0m	35	1.0nØb	80 Ø	10 Ø	8.0pØ	MEΔ	TO46	
4	NS476	400m	80MΔ	2.2m	§	30	30	6.0	50m	50u	5.0	1.0m	70	1.0nØb	80 Ø	10 Ø	8.0pØ	MEΔ	TO46	
5	NS477	400m	80MΔ	2.2m	§	30	30	6.0	50m	50u	5.0	1.0m	190	1.0nØb	80 Ø	10 Ø	8.0pØ	MEΔ	TO46	
6	NS478	400m	80MΔ	2.2m	§	60	60	8.0	50m	50u	5.0	1.0m	35	1.0nØb	80 Ø	10 Ø	8.0pØ	ME	TO46	
7	NS479	400m	80MΔ	2.2m	§	60	60	8.0	50m	50u	5.0	1.0m	70	1.0nØb	80 Ø	10 Ø	8.0pØ	ME	TO46	
8	NS480	400m	80MΔ	2.2m	§	60	60	8.0	50m	50u	5.0	1.0m	190	1.0nØb	80 Ø	10 Ø	8.0pØ	ME	TO46	
9	NS731	400m	80M	2.2m	§J	15	15	4.0	100m	1.0uØ	5.0Ø	1.0mØ	33	800nb	35	6.0	5.0p	MEΔ	TO18	
10	NS731A	400m	80M	2.6m	§J	15	15	4.0		100nØ	5.0Ø	100uØ	20 Δ	800nb	35	6.0	5.0p		TO18	
11	NS732	400m	80M	2.2m	§J	15	15	4.0	100m	1.0uØ	5.0Ø	1.0mØ	83	800nb	35	6.0	5.0p	MEΔ	TO18	
12	NS732A	400m	80M	2.6m	§J	15	15	4.0		100nØ	5.0Ø	100uØ	80 Δ	800nb	35	6.0	5.0p		TO18	
13	NS733	400m	80M	2.2m	§J	30	30	4.0	100m	1.0uØ	5.0Ø	1.0mØ	35	800nb	35	6.0	5.0p	MEΔ	TO18	
14	NS733A	400m	80M	2.6m	§J	30	30	4.0		100nØ	5.0Ø	100uØ	20 Δ	800nb	35	6.0	5.0p		TO18	
15	NS734	400m	80M	2.2m	§J	30	30	4.0	100m	1.0uØ	5.0Ø	1.0mØ	80	800nb	35	6.0	5.0p	MEΔ	TO18	
16	NS734A	400m	80M	2.6m	§J	30	30	4.0		100nØ	5.0Ø	100uØ	80 Δ	800nb	35	6.0	5.0p		TO18	
17	NS1972	400m	90M§		§J	25	15	5.0		100n	5.0Ø	100uØ	40 †Δ	500nb	27	6.0	5.0p		TO18	A
18	NS1973	400m	90M§		§J	25	15	5.0		100n	5.0Ø	100uØ	100 †Δ	500nb	27	6.0	5.0p		TO18	A
19	NS1974	400m	90M§		§J	25	15	5.0		100n	5.0Ø	100uØ	40 †Δ	500nb	27	6.0	5.0p		TO46	
20	NS1975	400m	90M§		§J	25	15	5.0		100n	5.0Ø	100uØ	100 †Δ	500nb	27	6.0	5.0p		TO46	
21	2N1964†	400m	100M§Δ	2.7m	§J	60	40 §	5.0	500m	.50uØ	10Ø	150mØ	20 †Δ				18pØ		TO46	AØ
22	2N1964/46†	400m	100M§Δ		§J	60	40 §	5.0	500m	.50u	10Ø	150mØ	40 †				18pØ	E	TO46	AØ
23	2N1965†	400m	100M§Δ	2.7m	§J	60	40 §	5.0	500m	.50uØ	10Ø	150mØ	40 †Δ				18pØ		TO46	AØ
24	2N1965/46†	400m	100M§Δ		§J	60	40 §	5.0	500m	100u	10Ø	150mØ	80				18pØ	E	TO46	
25	ST6593	400m	100M§Δ	2.2m	§J	60	30	5.0		50nØ	10Ø	150mØ	20 †Δ				10pØ	PE	TO18	Ø
26	ST6594	400m	100M§Δ	2.2m	§J	60	30	5.0		50nØ	10Ø	150mØ	100 †Δ				10pØ	PE	TO18	Ø
27	RT409E	400m	150M	3.0m	§J	60		5.0		.50u	10	150m	40 †				15p	PL	TO46	
28	RT696AM	400m	150M	4.5m	§J	60		5.0		100nØ	10Ø	5.0mØ	45 †	500nb	5.4	1.0	20	PLΔ	TO46	
29	RT697AM	400m	150M	2.6m	§	60		5.0		100nØ	10	10mØ	70 †#	500nb	5.4	1.0	20	PLΔ	TO46	
30	ST6600	400m	150M§Δ	2.2m	§J	50	30	5.0		50nØ	10Ø	150mØ	40 †Δ				11pØ	PE	TO18	Ø
31#	FT005	400m	175M§	3.2m	§S	50	25	6.0	75m	100u	15Ø	6.0mØ	35	120u	600		7pØ	ME	TO5	
32#	FT006	400m	175M§	3.2m	§S	50	25	6.0	75m	100u	15Ø	6.0mØ	70	120u	600		7pØ	ME	TO5	
33	RT698M	400m	180M	4.0m	§J	120		5.0		5.0n	10Ø	150mØ	40 †#				14	PLΔ	TO46	
34	RT719M†	400m	180M	2.3m	§J	120		5.0		2.0uØ	10Ø	150mØ	30 †#				14p	PLΔ	TO46	
35	2N706C/46†	400m	200M§Δ	2.3m	§J	40	15	5.0	200m	1.0uØ	1.0Ø	10mØ	20 †Δ				5pØ	E	TO46	
36	2N1962†	400m	200M§Δ	2.7m	§J	40	20 §	5.0	200m	.25uØ	1.0Ø	10mØ	20 †Δ				3.5pØ		TO46	AØ
37	2N1962/46†	400m	200M§Δ		§J	40	20	5.0	200m	.25u	1.0Ø	10mØ	50 †				3.5pØ	E	TO46	AØ
38	2N1963†	400m	200M§Δ	2.7m	§J	30	15 §	5.0	200m	.25uØ	1.0Ø	10mØ	25 †Δ				3.5pØ		TO46	AØ
39	2N1963/46†	400m	200M§Δ		§J	30	15	5.0	200m	100u	1.0Ø	10mØ	25 †Δ				3.5pØ	E	TO46	
40	2N2096A	400m	200M§Δ			60	60	5.0		.01u		1.0mØ	40 †				8.0p	PE	TO18	
41	2N2097A	400m	200M§Δ			60	60	5.0		.01u		1.0mØ	100 †				8.0p	PE	TO18	
42	2N2618/46	400m	200M§Δ	1.7m	▼J	60	40	7.0	750m	250nØ	10Ø	10mØ	30 †Δ				14pØ	EM	TO46	A
43#	SDD3000	400m	200M§Δ	3.2m	§S	30	20	3.0	100m	100u	15Ø	6.0mØ	15 Δ				10p		TO5	
44#	FT052	400m	275M	3.1m	§S	60	40	3.0	100m	100u	15	6.0m	40				5pØ	ME	TO5	
45#	FT008	400m	300M§	3.2m	§S	50	30	5.0	75m	100u	15Ø	6.0mØ	30	150u	600		4pØ	ME	TO5	
46#	FT008A	400m	300M§	3.2m	§S	50	30	5.0	75m	100u	15Ø	6.0mØ	60	150u	1.2k		4pØ	ME	TO5	
47#	FT053	400m	300M	3.1m	§S	100	60	5.0	100m	100u	15	6.0m	60				5pØ	ME	TO5	
48	40283†	400m	375M§	2.2m	§J	60	30	5.0			1.0Ø	500mØ	10 †#Δ				5.8p	DPE	TO46	AØ
49	2N706B46	400m	400M§Δ	3.3m	§J	25	20 §	5.0		10u	1.0Ø	10mØ	40 †				4.5p	PE	TO46	
50	2N743/46†	400m	400M§	3.3m	§J	20	12	5.0	200m		.35Ø	10mØ	40 †				5pØ	EM	TO46	
51	2N744/46†	400m	400M§	3.3m	§J	20	12	5.0	200m		.35Ø	10mØ	80 †				5pØ	EM	TO46	
52	2N835/46†	400m	450M§	3.3m	§J	25	20	3.0	200m	.50uØ	1.0Ø	10mØ	40 †				2.8p	ME	TO46	
53	2N709A/46†	400m	800M§	2.2m	§J	15	6.0	4.0		5.0nØ	.50Ø	10mØ	60 †				3.0pØ		TO46	
54	2N917/46	400m	800MΔ	2.2m	§J	30	15	3.0		1.0nØ	1.0Ø	3.0mØ	20 †Δ				1.7pØ	PLΔ	TO46	
55	2N2475/46†	400m	800M§	2.3m	§J	15	6.0	4.0		10u	.40Ø	20mØ	50 †				2.4p	PE	TO46	
56	2N918/46	400m	960MΔ	2.3m	§J	30	15	3.0		.01uØ	3.0	30mØ	20 †Δ				1.7pØ	PEØΔ	TO46	
57	2N3633/46	400m	1.3G§	2.3m		15	6.0	4.0	50m	5nØ	.50Ø	10mØ	150 †Ø				2.5pØ	PE	TO46	
58#	MC104	450mØ		5.0m	§J	60			200m	5.0u	1.0Ø	10mØ	10							
59#	MC105	450mØ		5.0m	§J	100			200m	5.0u	1.0Ø	10mØ	10							
60#	MC106	450mØ		5.0m	§J	60			300m	5.0u	1.0Ø	10mØ	10							
61#	MC107	450mØ		5.0m	§J	100			300m	5.0u	1.0Ø	10mØ	10							
62	CS696†	450m	64.MΔ			60	40 §	5.0		1.0uØ	10Ø	150mØ	20 #Δ				35pØ	D	R97	
63	CS1893	450m	80.MΔ			120	80	7.0		.01uØ	10Ø	150mØ	80 †#	11u	2.8k	3.5	15pØ	PLΔ	R97	
64	CS1613	450m	130M			75	50 §	7.0		10nØ	10Ø	150mØ	80 †#	12u	2.2k	3.6	25pØ	PL†Δ	R97	
65	RT7007E	450m	150M	3.0m	§J	60		5.0		.50u	10Ø	150mØ	40 †				15p	ME	TO18	
66	CS1711	450m	160M			75	50 §	7.0		10nØ	10Ø	150mØ	100 †	23u	4.4k	7.3	25pØ	PLØΔ	R97	
67	CS2218†	450m	400M§			60	30	5.0		.01uØ	10Ø	150mØ	80 †#				4.0p		R97	
68	CS2219†	450m	400M§			60	30	5.0		.01uØ	10Ø	150mØ	150 †#				4.0p		R97	
69	11B1259	500m		2.8m	§J	100	60	7.0			10Ø	150mØ	80 †Δ	1.0uØb	8.0 Ø	4.0 Ø	15pØ	PL†	TO18	
70	K4002	500mØ		5.0m	♦J	30	12	2.0		.50uØ	10Ø	8.0mØ	20 †Δ				2pØ	Ø	RO38	
71	703B	500m	10M§Δ	3.3m	§A	60		3.0	50m	1.0u	5.0Ø	1.0m	37 Δ	1.2uØb	38	10 Ø	20pØ		TO5	A
72	CDQ10002	500m	10M	3.3m	§J	45	45	4.0	25m	500n	5.0	1.0m	16	250nb	25 Ø	1.2	7.0p	PL	TO5	Ø
73	NS061	500m	10M	3.3m	§J	45		4.0	25m	20u	5.0	1.0m	16	250nb	40	1.2	5.0p	ME		
74	USAF510ES030M†	500m	10M§Δ	3.3m	§J	60	55	3.0	50m	1.0u	5.0Ø	1.0m	37 Δ	1.2uØb	50 Ø	10 Ø	20pØ	GD	TO39	Ø
75	USAF510ES031M†	500m	10M§Δ	3.3m	§J	60	55	3.0	50m	1.0u	5.0Ø	1.0m	40 Δ	1.2uØb	50 Ø	10 Ø	20pØ	GD	TO39	Ø
76	CDQ10004	500m	11M	3.3m	§J	45	45	4.0	25m	500n	5.0	1.0m	30	180nb	25 Ø	1.2	7.0p	PL	TO5	Ø
77	NS064	500m	11M	3.3m	§J	45		4.0	25m	20u	5.0	1.0m	30	200nb	40	1.2	5.0p	ME		
78	CDQ10006	500m	12M	3.3m	§J	45	45	4.0	25m	500n	5.0	1.0m	38	180nb	25 Ø	1.2	7.0p	PL	TO5	Ø
79	NS067	500m	12M	3.3m	§J	45		4.0	25m	20u	5.0	1.0m	38	180nb	40	1.2	5.0p	ME		
80	CDQ10008	500m	13M	3.3m	§J	45	45	4.0	25m	500n	5.0	1.0m	52	150nb	25 Ø	1.2	7.0p	PL	TO5	Ø
81	NS070	500m	13M	3.3m	§J	45		4.0	25m	20u	5.0	1.0m	52	150nb	40	1.2	5.0p	ME		
82	CDQ10010	500m	15M	3.3m	§J	45	45	4.0	25m	500n	5.0	1.0m	95	1.3ub	25 Ø	1.2	70p	PL	TO5	Ø
83	NS073	500m	15M	3.3m	§J	45		4.0	25m	20u	5.0	1.0m	95	150nb	40	1.2	5.0p	ME		
84#	25T2	500m	20M			30		1.0	100m	5.0u	10	5.0m	50	1.5ub	8.0	3.0				
85#	26T2	500m	20M			60		1.0	100m	5.0u	10	5.0m	50	1.5ub	8.0	3.0				
86#	28T2	500m	20M			30		1.0	100m	5.0u	10	5.0m	14	1.5ub	8.0	3.0				
87#	29T2	500m	20M			60		1.0	100m	5.0u	10	5.0m	14	1.5ub	8.0	3.0				
88	2N866†	500m	40MΔ§	3.0m	▼S	30	20 §	5.0	600m	100u	10Ø	150mØ	15 †Δ				45p		TO18	
89	2N867†	500m	50MΔ§	3.0m	▼S	30	20 §	5.0	600m	100u	10Ø	150mØ	30 †Δ				45p		TO18	
90	2N3241	500m	50M§Δ	3.3m	§S	30	25	5.0	100m	100nØ	12Ø	10mØ	70 Δ	350uØ	1.0kØ		30pØ	Ø	R92	Ø
91	2N3242	500m	50M§Δ	3.3m	§S	30	25	5.0	200m	10nØ	12Ø	10mØ	100 Δ	350uØ	1.5kØ		30pØ	Ø	R92	Ø
92	2N2244	500m	60MΔ	2.8m	§S	20	20	6.0	100m	10uØ	4.0Ø	2.0uØ	10 †	50uØ			8.0pØ	ME	TO18	A
93	2N2245	500m	60MΔ	2.8m	§S	20	20	6.0	100m	10uØ	4.0Ø	2.0uØ	20 †	50uØ			8.0pØ	ME	TO18	A
94	2N2246	500m	60MΔ	2.8m	§S	20	20	6.0	100m	10uØ	4.0Ø	2.0uØ	40 †	50uØ			8.0pØ	ME	TO18	A
95	2N2247	500m	60MΔ	2.8m	§S	45	45	6.0	100m	10uØ	4.0Ø	2.0uØ	10 †	50uØ			8.0pØ	ME	TO18	A
96	2N2248	500m	60MΔ	2.8m	§S	45	45	6.0	100m	10uØ	4.0Ø	2.0uØ	20 †	50uØ			8.0pØ	ME	TO18	A
97	2N2249	500m	60MΔ	2.8m	§S	45	45	6.0	100m	10uØ	4.0Ø	2.0uØ	40 †	50uØ			8.0pØ	ME	TO18	A
98	2N2250	500m	60MΔ	2.8m	§S	20	20	6.0	100m	10uØ	4.0Ø	2.0uØ	10 †	25uØ			8.0pØ	MEØ	TO18	A
99	2N2251	500m	60MΔ	2.8m	§S	20	20	6.0	100m	10uØ	4.0Ø	2.0uØ	20 †	30uØ			8.0pØ	MEØ	TO18	A
100	2N2252	500m	60MΔ	2.8m	§S	20	20	6.0	100m	10uØ	4.0Ø	2.0uØ	40 †	50uØ			8.0pØ	MEØ	TO18	A
101	2N2253	500m	60MΔ	2.8m	§S	45	45	6.0	100m	10uØ	4.0Ø	2.0uØ	10 †	25uØ			8.0pØ	MEØ	TO18	A
102	2N2254	500m	60MΔ	2.8m	§S	45	45	6.0	100m	10nØ	4.0Ø	2.0uØ	20 †	30u			8.0pØ	MEØ	TO18	A
103	2N2255	500m	60MΔ	2.8m	§S	45	45	6.0	100m	10nØ	4.0Ø	2.0uØ	40 †	50u			8.0pØ	MEØ	TO18	A
104	JAN2N716	500m	70M§Δ	1.8m	▼S	70	40	5.0		10u	10Ø	15mØ	10 †#Δ				6.0pØ	Ø	TO18	Ø
105	2N1893/46	500m	80.MΔ	4.5m	§J	120	80	7.0		.01uØ	10Ø	150mØ	80 †#	11u	2.8k	3.5	15pØ	PLΔ	TO46	
106	NS430	500m	80.M	2.9m		10					4.0	2.0m	5.0 †Δ				8pØ	D	TO18	
107	NS431	500m	80.M	2.9m		10					4.0	2.0m	7.0 †Δ				8pØ	D	TO18	
108	NS432	500m	80.M	2.9m		10					4.0	2.0m	15 †Δ				8pØ	D	TO18	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CODE
1	NS433	500m	80.M	2.9m			20					4.0	2.0m	5.0 †Δ				8pØ	D	TO18		
2	NS434	500m	80.M	2.9m			20					4.0	2.0m	7.0 †Δ				8pØ	D	TO18		
3	NS435	500m	80.M	2.9m			20					4.0	2.0m	15 †Δ				8pØ	D	TO18		
4	NS436	500m	80.M	2.9m			45					4.0	2.0m	5.0 †Δ				8pØ	D	TO18		
5	NS437	500m	80.M	2.9m			45					4.0	2.0m	7.0 †Δ				8pØ	D	TO18		
6	NS438	500m	80.M	2.9m			45					4.0	2.0m	15 †Δ				8pØ	D	TO18		
7	SA100Ø	500m	80.M	2.9m	§J		60	30	7.0		10u	5.0	10m	50 †Δ				7.0p	PL	L2		
8	2N1444†	500m	100M	4.0m	§J			60 Ø	6.0	250m	.50uØ	5.0Ø	250mØ	25 †				32p	DME	TO29		
9	2N1613/46	500m	130M	4.5m	§J		75	50 §	7.0		.01uØ	10Ø	150mØ	80 †#	12.u	2.2k	3.6	25pØ	PL†Δ	TO46		
10#	2SC26	500m	150M		§J		60			100m	1.0u	10Ø	10m	50				4.0p	ME			
11	2N1711/46	500m	160M	3.8m			75	50 §	7.0		.01uØ	10Ø	150mØ	130 †	23.u	4.4k	7.3	25pØ	PLØΔ	TO46		
12	NS3300Ø	500m	180M§Δ	2.9m	§J		60	45	6.0	.01m	5.0uØ	1.0Ø	100m					8.0pØ	PE	TO18	AØ	
13	2N1682	500m	200M§Δ	3.0m	§J		25	12	3.0		.50uØ	1.0Ø	10mØ	20 †Δ				6pØ	Δ	TO5		
14	NS2100†	500m	200M§		§J		80	60	5.0		100nØ	10Ø	500mØ	80 †#				10pØ	E	TO18	Ø	
15	NS9713	500m	900M§	4.0m	§J		30	15	3.0		.01uØ	1.0Ø	3.0mØ	50 †				3pØ	EØ	X16		
16#	BC175	560m	180M§	4.5m	§J		35	35	5.0	500m	500n	10Ø	1.0mØ	220	14u	6.1k	2.9		PE	X28		
17	2N1081	600m		5.9m	§S		40	40	10	750m	15u	7.0Ø	500mØ	20 Δ				100pØ	Δ	TO5		
18	JAN2N1081	600m		5.8m	§S		40	40	10	750m	500n	7.0Ø	500mØ	20 Δ				100pØ	Ø	TO5		
19	PT898	600m		4.0m	§J		45	50 §	5.0		300uØ									TO5		
20	RT5804	600m		4.8m			25		7.0										ME	TO5		
21#	TF260	600m		5.0m	§J		100		20	300m	5.0u	1.0Ø	10mØ	10						TO5		
22#	XT1A	600m		5.9m	♦J		200	135	5.0	300m	50u			12 Δ					D	TO5		
23#	XT1B	600m		5.9m	♦J		300	200	5.0	300m	50u			12 Δ					D	TO5		
24#	XT1C	600m		5.9m	♦J		400	265	5.0	300m	50u			12 Δ					D	TO5		
25#	XT1D	600m		5.9m	♦J		500	350	5.0	300m	50u			12 Δ					D	TO5		
26	A1379	600mØ	20M§Δ	4.0m	§J		30	25	5.0	30m	10nØ	5.0Ø	100uØ	100	1.0uØb	32 Ø	20mØ	15pØ	PLØ	TO18		
27	A1380	600mØ	20M§Δ	4.0m	§J		30	25	5.0	30m	10nØ	5.0Ø	100uØ	300	1.0uØb	32 Ø	20mØ	15pØ	PLØ	TO18		
28	PT887	600m	30.M	4.0m	§J		50	45 §	5.0	500m	300u			80 Ø					PL	TO5		
29	PT888	600m	30.M	4.0m	§J		50	45 §	5.0	500m	300u			80 Ø					PL	TO5		
30	PT897	600m	30.M	4.0m	§J		45	50 §	5.0		300u			80 Ø						TO5		
31#	ZT1420	600m	30.M§				60		5.0			1.0	10m	300					ME	TO5		
32#	FT004	600m	50MΔ	2.8m	$S		50	30	6.0		100u	15Ø	6.0mØ	45 Δ		2.5kØ	5.0 Ø	10pØ	PE	TO5		
33#	ST160†	600m	50M§Δ		§S		40	20	5.0		50nØ	10Ø	150mØ	30 †#Δ				25pØ	PEΔ	TO5	Ø	
34#	ST161†	600m	50M§Δ		§S		40	20	5.0		50nØ	10Ø	150mØ	20 †#Δ				25pØ	PEΔ	TO5	ØØ	
35#	ST162†	600m	50M§Δ		§S		40	20	5.0		50nØ	10Ø	150mØ	40 †#Δ				25pØ	PEΔ	TO5	ØØ	
36#	ST163†	600m	50M§Δ		§S		40	20	5.0		50nØ	10Ø	150mØ	20 †#Δ				25pØ	PEΔ	TO5	ØØ	
37#	ST178	600m	50M§Δ		§S		75	75	5.0		50nØ	10Ø	50mØ	75 †#Δ				15pØ	PE	TO5	Ø	
38	TRS100A	600m	50M§Δ	4.0m	§J		100	100 §	6.0		3.0uØ	4.0Ø	50mØ	30 †#Δ				15pØ		TO5		Ø
39	USAF511ES035P																	40pØ		TO5		
40	USAF511ES036P†	600m	50M§Δ	13m	§J		80	70 Ø	5.2	1.0	10u	10Ø	2.0mΔ	40 †Δ#				35pØ	PL	TO39		Ø
		600m	50M§Δ	13m	§J		80	70 Ø	5.2	1.0	10u	10Ø	2.0mΔ	40 †Δ#				35pØ	PL	TO39		Ø
41	2N1941	600m	60MΔ§	4.0m	§J		45	30 §	5.0	1	2.0uØ	6.0Ø	1.0m	40 Δ				35p		TO5		
42#	FT001	600m	60.M§	4.8m	$S		50	30	6.0	300m	100u	15Ø	6.0mØ	35	50u	650		25pØ	ME	TO5		
43#	FT002	600m	60.M§	4.8m	$S		50	30	8.0	300m	100u	15Ø	6.0mØ	70	50u	650		25pØ	ME	TO5		
44#	SDD420	600m	60.M§	4.8m	$S		50	30	6.0	300m	100u	15Ø	6.0mØ	60	50u	650		25pØ	D	TO5		
45#	ST150	600m	60M§Δ		§S		60	40 §	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PEΔ	TO5	Ø	
46#	ST152	600m	60M§Δ		§S		60	25	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PE	TO5	Ø	
47#	ST153	600m	60M§Δ		§S		60	15	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PE	TO5	Ø	
48#	ST154	600m	60M§Δ		§S		40	30	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PE	TO5	Ø	
49#	ST155	600m	60M§Δ		§S		40	25	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PE	TO5	Ø	
50#	ST156	600m	60M§Δ		§S		40	20	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PE	TO5	Ø	
51#	ST157	600m	60M§Δ		§S		40	15	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PE	TO5	Ø	
52#	2SC19	600m	70M§Δ	4.0m	§J		40	30 §	5.0	400m	1.0uØ	10Ø	150m	50 †				25pØ	PE	TO5	Ø	
53#	2SC20	600m	70M§Δ	4.8m	§J		40	40 §	3.0	400m	1.0uØ	10Ø	10m	50				30p	ME	TO5	AØ	
54#	FT004A	600m	70M§Δ	5.0m	$S		50	30	6.0	100m	100u	15Ø	6.0mØ	80 Δ	70u	1.5k		30p	ME	TO5	AØ	
55#	SDD1220	600m	70.M§	4.8m	$S		50	30 §	6.0	75m	100u	15Ø	6.0mØ	60	120u	600		20p		TO5		
56	2N3450†	600m	100M§Δ	4.5m	§S		120	60	7.0	800m	200nØ	1.0Ø	150mØ	40 †#Δ				7pØ	D	TO5		
57#	BFY15†	600m	100M§	4.7m	$A		40	20	6.0	500m	1.0uØ	9.0Ø	20mØ	30				15pØ		TO5	ØØ	
58#	FT003	600m	100M§	4.8m	$S		50	30	6.0	100m	100u	15Ø	6.0mØ	35	70u	400		25p	PLØ	TO5	Ø	
59	2N1644A	600m	150M	4.0m	§J		60		5.0		1.0u	10	15m	75 †				10pØ	ME	TO5		
60#	BFY16†	600m	150M§	4.7m	$A		40	20	6.0	500m	1.0uØ	9.0Ø	20mØ	42				20p	ME			
61	HT102	600m	150M§		§S		20		5.0		5.0uØ	10	50mØ	6.0 Δ				25p	PLØ	TO5	Ø	
62	HT103	600m	150M§		§S		20		3.0		5.0uØ	10	50mØ	6.0 Δ				35pØ	MEΔ	TO5		
63	PMT213	600m	150M	4.0m	§J		60	40 §	5.0		1.0uØ	10Ø	150mØ	40 †				35pØ	MEΔ	TO5		
64	PMT214	600m	150M	4.0m	§J		60	40 §	5.0		1.0uØ	10Ø	150mØ	80 †#				20p	MEΔ	TO51		
65	RT482	600m	150M	5.0m	§J		20		5.0		2.0uØ	10Ø	30mØ	20 Δ				20p	MEΔ	TO51		
66	RT483	600m	150M	5.0m	§J		40		5.0		2.0uØ	10Ø	150mØ	40 †				25pØ	PL	TO5		
67	RT484	600m	150M	5.0m	§J		40		5.0		2.0uØ	10Ø	150mØ	80 †				25pØ	PL	TO5		
68	RT5151	600m	150M	5.0m	§J		45	20	4.0		1.0uØ	10Ø	150mØ	60 †	3.0ub	10 Ø	5.0 Ø	25pØ	PL	TO5		
69	RT5152	600m	150M	5.0m	§J		45	20	4.0		1.0uØ	10Ø	150mØ	60 †	3.0ub	10 Ø	5.0 Ø	20p	MEΔ	TO5		
70	RT5203	600m	150M	5.0m	§J		40		5.0		2.0u							20p	MEΔ	TO5		
71	RT5204	600m	150M	5.0m	§J		30	30 §	5.0		1.0uØ	10Ø	10mØ	70 †	200nb	26	.50	18p	ME	TO5		
72	RT5212	600m	150M	5.0m	§J		60	60 §	5.0		1.0uØ	10Ø	10mØ	70 †	200nb	26	.50	18p	MEΔ	TO5		
73#	SDD820	600m	150M§	4.8m	$S		50	30	6.0	100m	2.0uØ	15Ø	6.0mØ	60	100u	700		12pØ	D	TO51		
74	PMT215	600m	175M	5.3m	§J		80	50 §	8.0		.50uØ	10	50mØ	9.0				11p	MEΔ	TO51		
75	2N2094	600m	200M§Δ				60	40	5.0		.02u		1.0mØ	25 †				8.0p	PE	TO5		
76	2N2094A	600m	200M§Δ				60	60	5.0		.01u		1.0mØ	40 †				8.0p	PE	TO5		
77	2N2095A	600m	200M§Δ				60	60	5.0		.01u		1.0mØ	100 †				8.0p	PE	TO5		
78	2N2618	600m	200M§Δ	3.4m	§J		60	40	7.0	750m	250nØ	10Ø	10mØ	30 Δ				14pØ		TO5	AØ	
79#	BFY25	600m	200M§Δ	4.5m	§J		60	40	6.0	200m	.01uØ	10Ø	10mØ	30 †#Δ				3.8p	PL	TO5	AØ	
80	NS1355	600m	200M§	3.4m	§A		70	40	5.0	1	.10u	10Ø	15mØ	30 †Δ				4.0p	PE	TO18		
81	NS1960	600m	200M	3.4m	§A		80	60	8.0	100m	5nØ	5.0Ø	1.0m	80 †Δ	70u	2.5k	1.0	4.0p	PL	TO18		
82#	ST175	600m	200M§Δ		§S		75	75	5.0		50nØ	10Ø	50mØ	20 †#Δ				15pØ	PE	TO5	Ø	
83#	ST176	600m	200M§Δ		§S		75	75	5.0		50nØ	10Ø	50mØ	40 †#Δ				15pØ	PE	TO5	ØØ	
84#	ST177	600m	200M§Δ		§S		75	75	5.0		50nØ	10Ø	50mØ	100 †#Δ				15pØ	PE	TO5	ØØ	
85#	ST180	600m	200M§Δ		§S		90	75	5.0		50nØ	10Ø	50mØ	20 †#Δ				15pØ	PE	TO5	ØØ	
86#	ST181	600m	200M§Δ		§S		90	75	5.0		50nØ	10Ø	50mØ	40 †#Δ				15pØ	PL	TO5	ØØ	
87#	ST182	600m	200M§Δ		§S		90	75	5.0		50nØ	10Ø	50mØ	100 †#Δ				15pØ	PL	TO5	ØØ	
88#	ST185	600m	200M§Δ		§S		100	100	5.0		50nØ	10Ø	50mØ	20 †#Δ				15pØ	PL	TO5	ØØ	
89#	ST186	600m	200M§Δ		§S		100	100	5.0		50nØ	10Ø	50mØ	40 †#Δ				15pØ	PL	TO5	ØØ	
90#	ST187	600m	200M§Δ		§S		100	100	5.0		50nØ	10Ø	50mØ	100 †#Δ				15pØ	PL	TO5	ØØ	
91#	TK254A	600m	200M§Δ		§J		40	25	3.0	100m	.01uØ	9.0Ø	10mØ	25 Δ				5.5pØ	PL	TO5		
92	2N2320	600m	300M§	3.4m			30		5.0		1.0u	.40Ø	20m	40 †				5.0p		TO5		
93#	2SC479H†	650m		4.3m	§J		60	40	5.0	600m	1.0uØ	1.0Ø	100mØ	40 †Δ				20pØ	PE	TO5	AØ	
94	J581	675m					30			50m		10Ø	5.0m	20					G	OV9		
95	J582	675m					60			50m		10Ø	5.0m	20					G	OV9		
96	J583	675m					100			50m		10Ø	5.0m	20					G	OV9		
97	J584	675m					30			50m		10Ø	5.0m	40					G	OV9		
98	J585	675m					60			50m		10Ø	5.0m	40					G	OV9		
99	J586	675m					100			50m		10Ø	5.0m	40					G	OV9		
100	J587	675m					30			50m		10Ø	5.0m	95					G	OV9		
101	J588	675m					60			50m		10Ø	5.0m	95					G	OV9		
102	J589	675m					100			50m		10Ø	5.0m	95					G	OV9		
103	J594	675m					30			50m		10Ø	5.0m	10 Δ					G	OV9		
104	J595	675m					60			50m		10Ø	5.0m	10 Δ					G	OV9		
105	J596	675m					100			50m		10Ø	5.0m	10 Δ					G	OV9		
106#	2SC12	700m	13.M§	5.6m	§J		60		8.0	250m		10	200m	20					ME	TO9		
107	RT5411	700m	40.M	2.0m	♥J		280		10		10u	20	10m	40 †				6.0p	ME	TO5		
108	RT5412	700m	40.M	4.0m	♥J		340		10		10u	20	10m	40 †				6.0p	ME	TO5		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	RT5413	700m	40.M	4.0m	▼J	400		10		10u	20	10m	40 †				6.0p	ME	TO5	
2	RT5401	700m	100M	4.0m	▼S	30	20	7.0	750	1.0u	10Ø	50mØ	230	1.8ub	2.0	5.0	19p	PL△	TO5	
3	RT5402	700m	100M	4.0m	▼S	30	25 §	7.0	750	1.0u	10Ø	10mØ	300	1.8ub	2.0	5.0	19p	PL△	TO5	
4	RT5403	700m	100M	4.0m	▼S	60	35 §	7.0	750m	1.0uØ	10Ø	10mØ	220	1.8ub	2.0	5.0	19p	PL△	TO5	
5	RT5404	700m	100M	4.0m	▼S	60	30 §	7.0	750m	1.0uØ	10Ø	50mØ	210	1.8ub	2.0	5.0	19p	PL△	TO5	
6	2N347	750m	3.0M		$J	60		1.0	60m	5.0u	5.0		49					G		
7	2N348	750m	3.0M		$J	90		1.0	50m	6.0u	5.0		24					G		
8	2N349	750m	3.0M		$J	125		1.0	40m	8.0u	5.0		19					G		
9#	2SC114†	750m	80.M	5.9m	$J						2.0	200m	73 †				18p		TO5	
10#	2SC112†	750m	180M	8.3m	$J						2.0Ø	200m	35 Δ†				7.0p		TO5	
11#	2SC113†	750m	180M	8.3m	$J						2.0Ø	200m	35 Δ†				7.0p		TO5	
12#	2SC32A	750m	200M§		$J	60	25	5.0	200m	.10u	10Ø	10m	60				4.0p	PE	TO5	
13#	2SC110	750m	240M			40		5.0	300m	10u	2.0	200m	50				6.0p		TO5	
14#	2SC111	750m	240M			50		5.0	300m	10u	2.0	200m	50				6.0p		TO5	
15#	2SC153	750m	350M			120		40	100m	1.0u	10	10m						ME	TO5	
16	2N1923	750m	90G§	5.8m	$J	85	85	1.0	60m	1.0uØ	10Ø	5.0m	4.0 †△	2.0uØb	30 Ø	3.0 Ø	15pØ		TO11	
17	2N1105	800m		4.5m	§S	60	60	8.0	500m	10uØ	10Ø	200mØ	12 †#		500				TO43	
18	2N1106	800m		4.5m	§S	100	100	8.0	500m	10uØ	10Ø	200mØ	12 †#		500				TO43	
19	2N1508	800m		5.3m	§	100		5.0	1	30u	3.6Ø	600mØ	20 †△				28p	ME		
20	2N1509	800m		5.3m	§	60		5.0	1	30u	3.6Ø	600mØ	20 †△				28p	ME		
21	2N2886	800m		4.5m	§J	50	40	5.0	500m	.10uØ	1.5Ø	5.0mØ	22 †△					†	TO5	
22	11B1260	800m		4.5m	§J	100	60	7.0			10Ø	150mØ	80 †△	1.0uØb	8.0 Ø	4.0 Ø	15pØ	PL†	TO5	
23	CDQ10049	800m		4.5m	§		110 §	5.0			1.0Ø	6.0mØ	60 †#					PL	TO5	
24	2N1252A†	800m	40M§△	4.5m	§J	60	30	5.0	1.0	1.0uØ	10Ø	150mØ	15 †△				45p		TO5	AØ
25	2N3526	800m	40M§△	4.5m	§J	130	120	5.0		1.0uØ	10Ø	30mØ	30 †#△				12pØ		TO5	Ø
26#	CP403	800m	45M§	4.5m	§J	40	40	5.0		5.0uØ	5.0Ø	2 Ø	75 †#				40p	DPE	TO5	AØ
27	2N1253A†	800m	50M§△	4.5m	§J	60	30	5.0	1.0	1.0uØ	10Ø	150mØ	30 †△				45p		TO5	AØ
28	11B1258	800m	50M§△	4.5m	§J	120	80	7.0		10nØ	10Ø	150mØ	40 †△	500nØb	30 Ø	1.3 Ø	15pØ	PL†	TO5	
29	11C1536	800m	50M§△	4.5m	§J	50	30	6.0	1	.05uØ	10Ø	150mØ	80 †#				20pØ	PE	TO5	
30	11B1257	800m	60M§△	4.5m	§J	75	50 §	7.0		.01uØ	10Ø	150mØ	40 †△				15pØ	PL†	TO5	
31#	BFW67	800m	60M§	4.5m	§J	300	300	8.0	400m	1.0uØ§	10Ø	100mØ	110 †				14p	PL	TO39	AØ
32	CDQ10046	800m	60M	4.5m	§	75	50	7.0		10nØ	5.0Ø	1.0 Ø	120	130nb	26	750m	25pØ	PL	TO5	
33	CDQ10047	800m	60M	4.5m	§	120	80	7.0		10nØ	5.0Ø	1.0 Ø	120	130nb	26	750m	15pØ	PL	TO5	
34	PT4800	800m	70.M	4.5m	§J	55	25	4.0	500m	100u	10Ø	150mØ	30 †#△				20pØ	E	TO5	
35	RT1210	800m	80M	4.5m	§J	200	200	8.0		250n	10Ø	30mØ	60 †				8.0pØ	PL	TO5	Ø
36	SE7010	800m	86.M§	4.5m	§J	150	150	6.0		.01uØ	10Ø	25mØ	20 △		50 Ø		2.6p	DPL	TO5	
37	RT1890M	800m	96.M△	4.5m	§J	100	60	7.0		.01uØ	10Ø	150mØ	130 †#	16.u	3.5k	4.6	15pØ	PL△	TO46	
38#	2SC95	800m	100M§△	6.7m	§J	140	100	5.0	100m	1.0u	10Ø	10m	50				20pØ	ME	TO5	
39	RT1115†	800m	100M		§J	120	80 §	7.0		20nØ	1.0Ø	150mØ	40 †△				15 Ø	PE	TO5	Ø
40	ST6573	800m	100M§	4.5m	§J	60	30	5.0		50nØ	10Ø	150mØ	20 †△				10pØ		TO5	
41	ST6574	800m	100M§	4.5m	§J	60	30	5.0		50nØ	10Ø	150mØ	100 †△				10pØ		TO5	
42	CDQ10048	800m	120M	4.5m	§	100		5.0			10Ø	50mØ	60 †#				20pØ	PL	TO5	
43	D11C1536	800m	130M§	4.5m	§A		30 §	6.0		26u	10Ø	150mØ	40 †△					PE	TO5	
44	PMT211	800m	130M§	6.7m	§J	30	25 §	4.0	500m	10uØ	10Ø	150mØ	15 †△				20p	ME△	TO51	
45	PMT212	800m	130M§	1.7m	§J	45	30 §	4.0	500m	10uØ	15	100mØ	6.5				20p	ME△	TO51	
46	2N1837B†	800m	140M§	4.5m	§J	80	30	8.0	500m	10nØ	10Ø	150mØ	40 †*△				18pØ		TO5	Ø
47#	2SC15-1	800m	150M		♦A	60		5.0	50m	1.0u	20Ø	10mØ	60 †	35ub			3.0p	ME		
48#	2SC15-2	800m	150M		♦A	60		5.0	50m	1.0u	20Ø	10mØ	60 †	35ub			3.0p	ME		
49#	2SC15-3	800m	150M		♦A	60		5.0	50m	1.0u	20Ø	10mØ	60 †	35ub			3.0p	ME		
50	ST6601	800m	150M§△	4.5m	§J	50	30	5.0		50nØ	10Ø	150mØ	40 †△				11pØ	PE	TO5	AØ
51	NS1356	800m	200M§	11m	§J	70	40	5.0		.10u	10Ø	15mØ	30 †△				7pØ	PE	TO5	
52	NS2101†	800m	200M§		§J	80	60	5.0		100nØ	10Ø	500mØ	80 †#				10pØ	E	TO5	Ø
53	2N3981†	800m	250M§△	4.5m	§J	60	30	5.0	1.0	300n	1.0Ø	150mØ	30 †△				8.0pØ		TO5	Ø
54	2N3982†	800m	250M§△	4.5m	§J	50	20	5.0	1.0	300n	1.0Ø	150mØ	40 †△				8.0pØ		TO5	Ø
55#	2SC580	800m	250M§	625u	§J	60	30	5.0	1.0	1.0uØ	10Ø	50m	80				10p	PE	TO5	
56	PT4830	800m	250M§	5.3m	§J	60	30	4.0		.05uØ	10Ø	10mØ	40 †△					PE	TO18	
57	TA2626†	800m	250M§△	4.5m	§J	75	50	5.0		10u§	1.0Ø	100mØ	30 †△				12pØ	DPE	TO5	Ø
58	TA2750	800m	250M§△	4.5m	§J	60	40	5.0		100u†§	1.0Ø	100mØ	30 †△				12pØ	DPE	TO5	Ø
59	D11E404†	800m	300M§△	4.5m	§J	80	60	5.0	1 #	.50u§Ø	1.0Ø	100mØ	40 †△#				10pØ	PE	TO5	A
60	D11E405†	800m	300M§△	4.7m	§J	80	60		1.0 #	10n§	Ø	Ø	†#				Ø		TO5	A
61	D11E406†	800m	300M§△	4.5m	§J	100	80	5.0	1 #	.50u§Ø	1.0Ø	100mØ	40 †△#				9pØ	PE	TO5	A
62	D11E407†	800m	300M§△	4.7m	§J	110	80		1.0 #	10n§	Ø	Ø	†#				Ø		TO5	A
63	2N3123	800m	400M§△	5.2m	§J	60	30	5.0	800m	10nØ	10Ø	150mØ	100 †#△		60 Ø		8.0pØ		TO5	Ø
64#	BFX14	800m	530M§	4.5m	§J	25	15	4.0	300m	.50uØ	10Ø	100mØ	50 †#				8.0p	PE	TO5	
65	MM1945	800m	600M§		§J	40		3.0		.50u							5pØ	E	TO18	
66	2N841/KVT	880mØ	40M§	5.0m		45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	140	350nb	40	2.0	8.0p	ME†	X30	
67	2N709/KVT	880mØ	800M§	5.0m		15	6.0	4.0		.05uØ	.50Ø	10mØ	55 †				3pØ	PL	X30	
68	2N2784/KVT	880mØ	1.0G§	5.0m		15	6.0	4.0	500m	5nØ	.50Ø	10mØ	120 †Ø				3pØ	PE	X30	
69	2N3633/KVT	880mØ	1.3G§	5.0m		15	6.0	4.0	50m	5nØ	.50Ø	10mØ	150 †Ø				2.5pØ	PE	X30	
70	D28B	950m		100u	§J	150	150 §		100m	.10u	10Ø	2.0mØ	250	10u	4.0k	1.0	5.0p		X51	
71	CDQ10011	1.0 Ø		7.6m	§J	55	55	1.0	60m	1.0uØ	10	5.0m	50	2.0uØb	30 Ø	3.0 Ø	30p	PL	TO5	Ø
72	CDQ10012	1.0 Ø		7.6m	§J	85	85	1.0	60m	1.0uØ	10	5.0m	50	2.0uØb	30 Ø	3.0 Ø		PL	TO5	Ø
73	CDQ10014	1.0 Ø		7.6m	§J	60	60	1.0	60m	1.0uØ	10	5.0m	20	2.0uØb	30 Ø	3.0 Ø		PL	TO5	Ø
74	CDQ10033	1.0 Ø			§S	85		3.0		1.0uØ	10	1.0m	53	2.0ub	25	3.0	20p	PL	TO5	Ø
75	CDQ10034	1.0 Ø			§S	125		3.0		1.0uØ	10	1.0m	53	200nb	25	3.0	20p	PL	TO5	Ø
76	CDQ10037	1.0 Ø		7.6m	$J	85		1.0	60m	1.0u	10	5.0m	20	2.0ub	25	3.0	20p	PL	TO5	Ø
77	ST4341	1.0			§J	80		5.0	150m	100u	5.0	3.0m	15 △				50p		TO5	
78	CDQ10044	1.0 Ø	6.0M	7.6m	$J	85		2.0	60m	50u	10	5.0m	20	2.0ub	25	300m	20p	PL	TO5	Ø
79	CDQ10045	1.0 Ø	6.0M	7.6m	$J	65		2.0	60m	50u	10	5.0m	59	2.0ub	25	300m	20p	PL	TO5	Ø
80	2N706/KVT	1 Ø	320M△	6.7m		25	20 §	3.0		.05uØ	1.0Ø	10mØ	20 †#△				6pØ	D	X30	
81	2N930/KVT	1.2 Ø	30M§△	6.6m		45	45	5.0	30m	10n	5.0Ø	1.0mØ	150 △	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	X30	
82	2N708/KVT	1.2 Ø	480M△	6.7m		40	15	5.0		.02uØ	1.0Ø	10mØ	30 †#△				6pØ	PL	X30	
83	2N2369/KVT	1.2 Ø	800M△	6.7m		40	15	4.5	500m	.40uØ	1.0Ø	10m	80 †				4pØ	PE	X30	
84	2N1893/KVT	3 Ø	80.M△	17m		120	80	7.0		.01uØ	10Ø	150mØ	80 #†	11u	2.8k	3.5	15pØ	PL△	X30	
85	2N1613/KVT	3 Ø	130M	17m		75	50 §	7.0		.01uØ	10Ø	150mØ	80 †#	12.u	2.2k	3.6	25pØ	PL†△	X30	
86	2N1711/KVT	3 Ø	160M	17m		75	50 §	7.0		.01uØ	10Ø	150mØ	130 †	23.u	4.4k	7.3	25pØ	PLØ△	X30	
87	MT914	250	300M§	1.6m	§J	40		5.0		25n	1.0Ø	10mØ	70 †				6.0p	PL	u13	

6. SILICON FIELD EFFECT TRANSISTORS - P CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs (V)	Vds (V)	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	MEM519				30	40				3.0p			130uΔ				300fΔ			*		
2	UC41	10mt	2.5	20		30Δ			300uΔ	10p	0.0	20	100u				2.5p	2.0m	200J	E	TO72	DG
3	UC43	10m	2.5	20		30			300u	10p										PE	u23	DB
4	UC40	30mt	5.0	20		30Δ			1.0mΔ	10p	0.0	20	150u				2.5p	2.0m	200J	E	TO72	DG
5	UC42	30m	5.0	20		30			1.0m	10p										PE	u23	DB
6#	3UT80	100m	8.0	10	25		10m			.01n	1.0Ø	6.0	.50m						150S	*	RO38vØ	
7	TIXM12	100m	3.5t	8.0Δ	20	20		10	25m	10u	5.0Ø	8.0	5.0m	20m	50n		9.0p#	1.3m	125S	Ge	R110b	DB
8	VI1010	112m	6.0Δ	*	50	40	25m	100u	10n	1.0n	10	10	500u%				1.1pt	1.1m	125J	DØ		
9	K1501	150m	7.0Δ	10	15	50	35m				10	10	1.0m	2.0mΔ		300	1.0pΔ		175J	*	TO72	DR
10	K1502	150m	7.0Δ	10	15	50	35m				10	10	1.0m	2.0mΔ		300	1.0pΔ		175J	*	TO72	DR
11	K1504	150m	8.0Δ	10	15	50	35m				10	10	800u	2.0mΔ		700	1.0pΔ		175J	*	TO72	DR
12	TIXM301	150m			20	20		10m	25m	6.0p	5.0Ø	8.0	6.5m	20m	20u			2.0m	125	GeE	TO72	DG
13	2N3882	200m	3.0Δ		30				1.0m				1.0mΔ							*	TO72	DK
14	MT01	200m	6.2Δ	*	40	25			20n		1.0Ø		650u	890uΔ		200		2.0m	125J	*	L25	
15	RN1020	200m	3.0Δ	15*	25				25n	100p	1.0Ø	15	1.0m	2.4m			3.0pt		125J	Ø*	R38s	
16	RN1030	200m	3.0Δ	5.0*	25				1.5n	100p	5.0	.50				600	4.0pt		125J	Ø*	R38s	
17	RN1030A	200m	2.2Δ	5.0*	24				1.0n	100p	5.0	.50				450	3.0pt		125J	Ø*	R38s	
18	RN3020	200m	3.0Δ	15*	25				50n	100p	1.0Ø	15	1.0m	2.4m			4.0pt		125J	Ø*	R38af	
19	RN3020R	200m	3.0Δ	15*	25				50n	100p	1.0Ø	15	1.0m	2.4m			4.0pt		125J	Ø*	R38y	
20	RN3030	200m	3.0Δ	5.0*	15				5.0n	100p	5.0	.50				650	4.0p		125J	Ø*	R38af	
21	RN3030R	200m	3.0Δ	5.0*	15				5.0n	100p	5.0	.50				650	4.0p		125J	Ø*	R38y	
22	DP1001▼	250m	4.0t	10Δ		30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u		16p	2.0m	150S	§	TO71	
23	DP1002▼	250m	4.0t	10Δ		30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u		16p	2.0m	150S	§	TO71	
24	DP1003▼	250m	4.0t	10Δ		30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u		16p	2.0m	150S	§	TO71	
25	DP1004▼	250m	4.0t	10Δ		30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u		16p	2.0m	150S	§	TO71	
26	DP1005▼	250m	4.0t	10Δ		30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u		16p	2.0m	150S	§	TO71	
27	DP1006▼	250m	4.0t	10Δ		30		10m	5.0m	250p	0.0	10	500u	3.0m	60u		16p	2.0m	150S	§	TO71	
28	DP1007▼	250m	4.0t	10Δ		30		10m	5.0m	250p	0.0	10	500u	3.0m	60u		16p	2.0m	150S	§	TO71	
29	DP1008▼	250m	4.0t	10Δ		30		10m	5.0m	250p	0.0	10	500u	3.0m	60u		16p	2.0m	150S	§	TO71	
30	DP1009▼	250m	4.0t	10Δ		30		10m	5.0m	250p	0.0	10	500u	3.0m	60u		16p	2.0m	150S	§	TO71	
31	DP1010▼	250m	5.0t	10Δ		30		10m	5.0m	250p	0.0	10	500u	3.0m	60u		16p	2.0m	150S	§	TO71	
32	3N96	300m	4.0t	5.0		30	50m	10m	2.5m	5.0n	0.0	5.0	450u	1.3m			4.0p#%	2.0m	175A		L24a	
33	3N97	300m	4.0t	5.0		30	50m	10m	2.5m	5.0n	0.0	5.0	450u	1.3m			4.0p#%	2.0m	175A		L24a	
34	FN1024	300m	3.0Δ	15	30	20				.10n	1.0	15	1.0m	2.4m		80k			150J	MOS	RO38s	
35	FN1034	300m	3.0Δ	5.0	15	12				.10n	5.0					.50k	2.0pØ		150J	MOS	RO38s	
36	MM2103	300m	5.0Δ	*	25	75	30m		3.0mΔ	10p			1.0m			600	6.5p		200	*	R38y	
37	P1003	300m	3.0	10		50Δ			6.0m	3.0n	0.0	10t	1.0m	3.5m			20p%	1.7m	200J	PL	RO38l	
38	P1004	300m	5.0	10					20	3.0n	0.0	10t	2.5m	6.0m			20p%		200J	PL	R38l	
39	TIXS11	300m	3.0Δ	20*	30	30			10uΔ	3.0p			800u			1.0k	8.0p	2.0m	200	*		
40	U89Ø	300m	6.0	10		20	50m		5.0mΔ	10n	0.0	10		1.2mΔ				2.0m	150S	D	RO38q	
41	UC300	300m	5.0	20		30		50m	3.8m	100p	0.0	20	1.0m			1.2kt	5.0p%		200J	PL	TO72	DG
42	UC305	300m	5.0	20		30		50m	3.8m	100p	0.0	20	1.0m			1.2kt	5.0p%		200J	PL	TO18	DD
43	UC310	300m	3.0	20		30		50m	1.5m	100p	0.0	20	750u			1.6kt	5.0p%		200J	PL	TO72	DG
44	UC315	300m	3.0	20		30		50m	1.5m	100p	0.0	20	750u			1.6kt	5.0p%		200J	PL	TO18	DD
45	UC320	300m	1.7	20		30		50m	600u	100p	0.0	20	300u			2.4kt	5.0p%		200J	PL	TO72	DG
46	UC325	300m	1.7	20		30		50m	600u	100p	0.0	20	300u			2.4kt	5.0p%		200J	PL	TO18	DD
47	UC330	300m	1.2	20		30Δ		50m	250u	100p	0.0	20	250u			4.8kt	5.0p#	1.7m	200J	PLØØ	TO72	DG
48	UC335	300m	1.2	20		30		50m	250u	100p	0.0	20	250u			4.8kt	5.0p%		200J	PL	TO18	DD
49	UC340	300m	4.0	5.0		50		50m	1.5m	1.0n	0.0	5.0	330u				10p		200J	PL	TO72	DH
50	UC801	300m	6.0	20		25			1.5m	200p	0.0	20	75u	750u			3.0p#			PLØ		
51	UC803	300m	6.0	20		25			5.0m	500p	0.0	20	250u	2.5m			6.0p#			PLØ		
52	UC804	300m	8.0	20		25			12m#	500p	0.0	20	500u	5.0m		2.0kt	8.0p#			PEØ	TO72	
53	UC850	300m	6.0	15		20			1.0m	2.0n	0.0	15	110u				6.0p#			PL	TO18	
54	UC852	300m	6.0	20		25			30u#	2.0p	0.0	20	60u			6.0p					TO18	
55	UC853	300m	6.0	20		25			70u#	4.0p	0.0	20	180u			10p					TO18	
56	UC854	300m	6.0	20		25			200u#	15n	0.0	20	540u				17p#				TO18	
57	UC855	300m	6.0	20		25			440u#	25n	0.0	20	1.4m				25p#				TO18	
58	HA2000	350m	5.0Δ	*	30														175J	*	TO72	
59	HA2001	350m	6.0Δ	*	35						2.0Ø	10	1.0m	2.0m					175J	*	TO72	
60	HA2010	350m	5.0Δ	*	35						2.0Ø	10	1.0m	2.0m					175J	*	TO72	
61	HA2020	350m	4.0Δ	*	35						2.0Ø	10	1.0m	2.0m					175J	*	TO72	
62	RM5008D	400m	3.0Δ	5.0*	15					100p	10					330					L49y	
63	RM8007D	400m	3.0Δ	5.0*	15					100p	10					400					L49y	
64	UC450	500m	10	20		25			75mΔ	250p			10m			60	25p			PL	TO18	DA
65	UC451	500m	6.0	20		25			375mΔ	250p			6.0m			150	25p			PL	TO18	DA
66	VI1023	900m	6.0Δ	*	30	60	50m	100u	6.0m	1.0n	10	10	2.5mΔ			150 Δ	6.0pt	9.0m	125J	DØ	L57	

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0	TEST COND Vgs (V)	TEST COND Vds (V)	PARAMETERS @25°C COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1	MF100		5.0		20								1.0m							*	TO18	
2	MF101		8.0		20								1.5m							*	TO18	
3	UC754		4.0	20		30			5.0m	1.0n	0.0	20	1.0m		50u		6.0p#			PLØ	TO18	
4	UC21	20m	2.5	20		30			600uΔ	50p			200u				2.0p		200	E	TO72	DH
5	UC23	20m	2.5	20		30			600u	10p										PE	u23	DB
6	DFNA3-100▼	50m	4.0	15		50Δ			2.5mΔ	1.0n	0.0	15	750u	2.0m			6.0p#	2.3m	150J	E	TO18	Ø
7	UC20	60m	5.0	20		30			2.0mΔ	50p			300u				2.0p		200	E	TO72	DH
8	UC22	60m	5.0	20		30			2.0m	10p										PE	u23	DB
9	K1201	75m	5.0	10	15	50	15m		5.0m		0.0	10	1.0m	2.0mΔ		7.0k			175J	*	TO72	DR
10	K1202	75m	5.0	10	15	50	15m		5.0m		0.0	10	1.0m	2.0mΔ		7.0k			175J	*	TO72	DR
11#	3UT07	100m	1.0Δ		25		10m			.01n	1.0Ø	6.0	.50m						150S	*	RO38y	
12	FF400♦	105m	7.0	10Δ	15Δ	15Δ		50m	6.0m	1.0n	0.0	10	1.5m				8.0pt	1.7m	200J	EΔ	TO72	DH
13	3N98	150mt	6.0t	12	32	2.0	15m		7.7m	.05n	0.0	12	1.0m	3.0m	250u%		7.0p#		85		RO38cΔ	
14	3N99	150mt	6.0t	12	32	2.0	15m		11m	.05n	0.0	12	1.0m	4.0m	300u%		7.0p#		85		RO38cΔ	
15	40460Ø	150m		Δ	25	10			9.0m	10p	0.0	12	3.5 Δ			90 t	5.0p#	1.5m	125A	*	TO72	DRØ
16	A194	150m	4.0t	15Δ	25	25	15m	5.0m	8.0m	.50n	0.0	15	2.0m	8.0m	20u		5.0p	1.0m	150J	PE#	TO106	DD
17	A195	150m	4.0t	15Δ	25	25	15m	5.0m	6.0m	.50n	0.0	15	1.0m	6.0m	20u		5.0p	1.0m	150J	PE#	TO106	DD
18	A196	150m	4.0t	15Δ	25	25	15m	5.0m	15m	.50n	0.0	15	4.0m	10m	20u		5.0p	1.0m	150J	PE#	TO106	DD
19#	BSV38At	150mΔ	10t	15	25	25	150m	10m	50m#%	250p						25	18p#	1.2m	150S	PEØ	u17c	E
20	K1001	150m	6.0	10	15	50	40m		12m		0.0	10	1.0m	2.4mΔ		10k	3.0pt		100J	*	TO72	DR
21	K1002	150m	6.0	10	15	50	40m		5.0m		0.0	10	1.0m	1.5mΔ		10k	3.0pt		100J	*	TO72	DR
22	K1003	150m	6.0	10	15	50	40m		20m			10	5.0mΔ	4.0m		500 %			100A	*	TO72	DR
23	K1004	150m	12	10	15	50	40m		7.0m		0.0	10	800u	1.6mΔ		10k	2.0pt		100J	*	TO72	DR
24#	3UT100	200m			20		30m				5.0Ø	10	2.5m%				3.5p#		150J	PE	TO92	
25	A197t	200m	10t	20Δ	30	30		50m	150mΔ	.50n						.03k%	16p	1.6m	150J	PE#Ø	TO106	DD
26	A198t	200m	5.0t	20Δ	30	30		50m	75mΔ	.50n						.06k%	16p	1.6m	150J	PE#Ø	TO106	DD
27	A199t	200m	3.0t	20Δ	30	30		50m	30mΔ	.50n						1.0k%	16p	1.6m	150J	PE#Ø	TO106	DD
28	MPF103	200m	6.0t	15	25	25	16m	10m	5.0m	1.0n	0.0	15	1.0m	5.0m	50u		7.0p	2.0m	125J	Δ	TO92	DD
29	MPF104	200m	7.0t	15	25	25	16m	10m	9.0m	1.0n	0.0	15	1.5m	5.5m	50u		7.0p	2.0m	125J	Δ	TO92	DD
30	MPF105	200m	8.0t	15	25	25	16m	10m	16m	1.0n	0.0	15	2.0m	6.0m	50u		7.0p	2.0m	125J	Δ	TO92	DD
31	DFNA3-50▼	250m	4.0	15		50Δ			2.5mΔ	1.0n	0.0	15	750u	2.0m			6.0p#	2.3m	150J	E	TO18	Ø
32	MM2102	300m	4.0Δ	*	25	75	30		10uΔ	10p			1.0m			200	4.5p		200	*	R38y	
33#	Ph241Nt	300m	1.0	0.0		30		10m	3.0m	.20n	0.0	15	2.0m	7.0m			13p			PE	TO18Ø	
34#	Ph242Nt	300m	1.5	0.0		30		10m	6.0m	.20n	0.0	15	3.5m	7.5m			13p			PE	TO18Ø	
35#	Ph243Nt	300m	2.5	0.0		30		10m	15m%	.20n	0.0	15	5.0m	10m%			13p			PE	TO18Ø	
36#	Ph244Nt	300m	3.0	0.0		30		10m	30m%	.20n	0.0	15	8.0m	15m%			13p			PE	TO18Ø	
37	u89Ø	300m	6.0	10		20	50m		5.0mΔ	10n	0.0	10		1.2mΔ				2.0m	150S	D	R38q	
38	u205▼	300m	4.0	20		50		50m	7.0m	25p	0.0	20	1.0m	4.0m			6.0p#	1.7m	200S	#	TO71	
39	u206▼	300m	4.0	20		50		50m	7.0m	25p	0.0	20	1.0m	4.0m			6.0p#	1.7m	200S	#	TO71	
40	u207▼	300m	4.0	20		50		50m	7.0m	25p	0.0	20	1.0m	4.0m			6.0p#	1.7m	200S	#	TO71	
41	U205▼	300m	4.0	20		50		50m	7.0m	.02n	0.0	20	1.0m	4.0m			6p#	1.7m	200S	#	TO71	
42	U206▼	300m	4.0	20		50		50m	7.0m	.02n	0.0	20	1.0m	4.0m			6p#	1.7m	200S	#	TO71	
43	U207▼	300m	4.0	20		50		50m	7.0m	.02n	0.0	20	1.0m	4.0m			6.0p#	1.7m	200S	#	TO71	
44	UC100	300m	5.0	20		30		10m	7.5m	100p	0.0	20	2.0m			600 t	5.0p%		200J	PL	TO72	DH
45	UC105	300m	5.0	20		30		10m	7.5m	100p	0.0	20	2.0m			600 t	5.0p%		200J	PL	TO18	DD
46	UC110	300m	3.0	20		30		10m	3.0m	100p	0.0	20	1.5m			800 t	5.0p%		200J	PL	TO72	DH
47	UC115	300m	3.0	20		30		10m	3.0m	100p	0.0	20	1.5m			800 t	5.0p%		200J	PL	TO18	DD
48	UC120	300m	1.7	20		30		10m	1.2m	100p	0.0	20	1.0m			1.2kt	5.0p%		200J	PL	TO72	DH
49	UC125	300m	1.7	20		30		10m	1.2m	100p	0.0	20	1.0m			1.2kt	5.0p%		200J	PL	TO18	DD
50	UC130	300m	1.2	20		30		10m	500u	100p	0.0	20	500u			2.4kt	5.0p%		200J	PL	TO72	DH
51	UC135	300m	1.2	20		30		10m	500u	100p	0.0	20	500u			2.4kt	5.0p%		200J	PL	TO18	DD
52	UC240	300m	5.0	20		50			10m	100p	0.0	20	1.2m				1.8p#		200J	E	TO18	DB
53	UC258	300m	3.0t	15		30		50m	30m	100p	10Ø	15	12m	24m	50u		14p#	1.7m	200J	PLØ	TO72	
54	UC701	300m	6.0	15		40			3.0m	200p										PE	TO72	
55	UC703	300m	6.0	20		40			10m	500p	0.0	20	500u	5.0m		2.0kt	6.0p#			PE	TO72	
56	UC704	300m	8.0	20		40			24m	500p	0.0	20	1.0m	10m		1.0kt	8.0p			PE	TO72	
57	UC705	300m	8.0	20		40			50m	1.0n	0.0	20	2.0m	20m		500 t	12p#			PLØ		
58	UC750	300m	6.0	15		30			50u#	2.0n										PE	TO18	
59	UC751	300m	6.0	20		30			100u#	2.0n	0.0	20	350u				10p#			PE	TO18	
60	UC752	300m	6.0	20		30			300u#	6.0n	0.0	20	1.0m				17p#			PE	TO18	
61	UC753	300m	6.0	20		30			900u#	10n	0.0	20	2.5m				25p#			PE	TO18	
62#	ZFT12	350m	2.4	20	25	25				10nΔ	0.0	20	400u	1.0m					150J	PL$	TO33	DY
63#	ZFT12A	350m	2.4	20	25	25				30nΔ	0.0	20	400u	1.0m					150J	PL$	TO33	DY
64#	ZFT14	350m	7.9	20	25	25				10nΔ	0.0	20	900u	2.0m					150J	PL$	TO33	DY
65#	ZFT14A	350m	7.9	20	25	25				30nΔ	0.0	20	900u	2.0m					150J	PL$	TO33	DY
66#	ZFT16	350m	5.0%	20	50	10			10m	10n	0.0	20	3.0mΔ			300 t	30p*		150J	PL	TO33	
67#	ZFT18	350m	5.0%	20	100	10			10m	10n	0.0	20	3.0mΔ			300 t	30p*		150J	PL	TO33	
68	UC2130Ø	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m		40u		4.0p		200J	PEØ	L21	
69	UC2132Ø	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m		40u		4.0p		200J	PEØ	L21	
70	UC2134Ø	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m		40u		4.0p		200J	PEØ	L21	
71	UC2136Ø	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m		40u		4.0p		200J	PEØ	L21	
72	UC2138Ø	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m		40u		4.0p		200J	PEØ	L21	
73	UC707	600m	12	20		20			250m	2.0n	0.0	20	5.0m	50m		200 t	30p#			PL	TO18	
74	u182t	1.8 Δ	10	20		.40		50m	120m							40	20p	10m	200S	Δ	TO18	
75	U182t	1.8 Δ	10	20		.40		50m	120m							40	20p	10m	200S	Δ	TO18	
76	RM3036	5.0 Δ				50							1.0 Δ								TO5	

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX TEMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	2N71		1.0	*A	250m		75		50				20		250k†			A		
2	2N230		15 Ø		2.0	.25	60	30	30	1.5m	4.0Ø	.50	60	106	12k			A		
3	2N675		1.0	#J	2.0		75				1.5	1.0	100 Ø		700k†			AΔ	TO26	
4#	11T1		2.5	#J	1.5		12	6.0				500m	20							
5#	12T1		2.5	#J	1.5		24	12				500m	20	40						
6#	13T1		2.5	#J	1.5		24	12				500m	40	80						
7#	14T1		2.5	#J	1.5		24	12				500m	80	160						
8#	15T1		2.5	#J	1.5		60	30				500m	10	25						
9#	16T1		2.5	#J	1.5		60	30				500m	25	50						
10	82T1		1.2	ØJ	1.5		30	10		80u	1.0Ø	1.0	30 Ø		1.0M†					
11	440C-C		5.0	#S	1.0		50	25		500uØ			30 Ø							
12	440C-E		14	#S	1.0		50	25		500uØ			30 †							
13	441C		15	#S	2.0		50	25		300uØ			60 †							
14	442C-A		1.5	#S	500m		50	25		100uØ			50 †							
15	442C-D		3.0	#A	500m		50	25		100uØ			50 †							
16	CTP1002		2.2	#A	2.5		60			100u			35 †							
17	CTP1003		2.2	#A	2.5		60			100u			15 †							
18	CTP1004		2.2	#A	2.5		40			100u			15 †							
19	CTP1005		2.2	#A	2.5		40			100u			25 †							
20	CTP1006		2.2	#A	2.5		40			100u			35 †							
21	CTP1119		25	#J			60			2.0m	12	.25	80							
22	GFT26		6.0	†A		2.0		10			6.0	500m			300k†					
23#	GFT2006		6.0 Ø		2.0		10	8.0			6.0	.50	25 Ø		300k†					
24#	RT150A		85	♦J	160		60	20	40		2.0Ø	150 Ø	15					A	X78	B
25#	RT150B		85	♦J	160		80	20	50		2.0Ø	150 Ø	15					A	X78	B
26#	XC121	5.0m		ØJ			35	12	16	10uØ	1.0	200m	40					A	R7	
27#	XC161	5.0m					26	6.0	16	7.0uØ	1.0	400m	40					A	R7	
28#	XCXC121	5.0m		ØJ			35	12	16	.01mØ	1.0	.20	40					A	RO7	
29#	XC131	10m		ØJ			35	12	16	.01mØ	1.0	.20	40					A§	MM7	
30#	XC163	15mØ		ØJ			26	6.0	16	7.0uØ	1.0Ø	400m	40					A	X7	
31#	XC171	15mØ		ØJ			26	6.0	16	.01m	1.0Ø	.40	40					A§	MM7	
32	2N671	16mØ	1.0	#J	2.0		40	40	40 Ø	75uØ	1.5Ø	1.0	100 Ø		650k†			AΔ	TO26	
33	2N673	16mØ	1.0	#J	2.0		25	25	25 Ø	75uØ								AΔ	TO26	
34	2N1126	16mØ	1.0	#J	250m		40	40		75u	6.0	10m	40 Ø		400k†Δ			A		
35	2N1127	16mØ	1.0	#J	250m		40	40		75u	1.0	500m	100 Ø		1.5M†			A		
36#	2SB27	20mØ		ØJ	.50		15	10	15	.80mØ	1.5Ø	.20	18	46	7.0k			A	TO3	
37#	2SB28	20mØ		ØJ	.50		15	10	15	.80m	1.5Ø	.20	35	96	7.0k			A	TO3	
38#	2SB29	20mØ		ØJ	.50		15	10	15	.80m	1.5Ø	.20	72	186	7.0k			A	TO3	
39#	2SB142	25mØ		#J	1.0		30	12	30	1.0m	1.5Ø	1.0	12	31	7.0k			A	TO3	
40#	2SB143	25mØ		#J	1.0		30	12	30	1.0m	1.5Ø	1.0	23	59	7.0k			A	TO3	
41#	2SB144	25mØ		#J	1.0		30	12	30	1.0m	1.5Ø	1.0	45	119	7.0k			A	TO3	
42#	2SB140	29mØ		#J	1.5		40	12	40	.60m	1.5Ø	1.0	62	89	7.0k			A	TO3	
43#	2SB141	29mØ		#J	1.5		60	12	60	.60m	1.5Ø	1.0	62	89	7.0k			A	TO3	
44#	2SB147	29mØ		#J	1.5		60	12	60	.60mØ	1.5Ø	.20	28	119	7.0k			A	TO3	
45	2N528	33m	1.0	#J	1.0	500m	40	40		500u	1.0Ø	500m	20	47 Ø	8.0M§	250m	400nØ	AΔ	TO38	
46	JAN2N528	33m	1.0	#S	1.0	500m	40	40	40 #	50u	1.0Ø	500m	20			500m	500nØ	A	TO38☒	
47	2N1940	40m	3.5 Ø	#S	250m		30	1.0	15	5.0uØ	7.5Ø	40m	5.0						MT30	AØ
48	GA53242	41mØ		#J	500m	100m	40	40	40	45u	1.0Ø	200m	45	133	6.8M†		370n	AΔ		
49#	2SA231	44mØ		Ø	400m		40	12		50u	6.0	70m	30 †	110	2.5k†				TO8	
50#	2SA232	44mØ		Ø	400m		30	12		50u	6.0	70m	30 †	175	4.0k†				TO8	
51#	2SB81	44mØ		ØJ	500m		80	12		50uØ	2.0Ø	100m	45 Ø		4.0M†			A	MD10	
52#	2SB82	44mØ		ØJ	500m		100	12		35uØ	2.0Ø	100m	45 Ø		4.0M†			A	MD10	
53	JAN2N1940	45m	3.5 Ø	#J	250m†		30 †	1.0†		100u	7.5Ø	40m	5.0						MT30	
54	2N1609	66m	1.0	#J	1.5 Ø	250m	80	40	60	100u	2.0	100m	30	75	17k	2.0	3.0u	AΔ	TO37	Ø
55	2N1610	66m	1.0	#J	1.5 Ø	250m	80	40	60	100u	2.0	100m	50	125	15k	1.2	3.0u	AΔ	TO37	Ø
56#	2SB80	67mØ		#J	1.0		25	10		.04m	1.5	.50	70 Ø		6.0M†			A	MD10	
57	2N1013	71m		#J	75	.25	60	30		1.0m	2.0	7.5M	23	60			.60u	AΔ		
58	H3A	71m		#J	.60	.25	60	30		1.0m	2.0	5.0m	10	25			1.2u	AΔ		
59	H4A	71m		#J	.75	.25	60	30		1.0m	2.0	7.5m	23	60			.60u	AΔ		
60#	TF77	77m		ØJ	.60		16	5.0	16	.03m	5.0Ø	.05	23 Ø					A		
61#	TF77/30	77m		ØJ	.60		32	10	32	.03m	10Ø	.10	32 Ø					A		
62	2N68	80m		ØJ	1.5		30	15	15	5.0m	6.0	50m	40 Ø		400k†					
63	2N101	80m		ØJ	1.5		30	15	15	5.0m	6.0	50m	40 Ø		400k†				OV4	
64	2N141	80mØ		ØJ	800m		60	30	30	5.0m	12	50m	40 Ø		400k†				MM1	
65	2N143	80mØ		ØJ	800m		60	30	30	5.0m	12	50m	40 Ø		400k†					
66#	2SB62	80m	4.0	ØJ	500m		60	12	60 §	70uØ	1.0	500m	30	125	200k†Δ			A	MD10	AØ
67#	2SB63	80m	4.0	ØJ	500m		32	12	32 §	70uØ	1.0	500m	30	125	200k†Δ			A	MD10	AØ
68#	THP45	83mØ		#J			15					2.0	20	200						
69#	THP46	83mØ		#J			30					2.0	20	200						
70#	THP47	83mØ		#J			60					2.0	20	200						
71	2N1645	86m	1.0	#J	300m			1.0	20	15uØ	10Ø	200m	20	35 Ø	600M§	5.0	37nØ	D	TO38	
72	2N1611	100m	1.0	#J	1.5 Ø	250m	60	20	40	100u	2.0	100m	30	75	17k	2.0	3.0u	AΔ	TO37	Ø
73	2N1612	100m	1.0	#J	1.5 Ø	250m	60	20	40	100u	2.0	100m	50	125	15k	1.2	3.0u	AΔ	TO37	Ø
74	AT202	100m	3.0 Ø	#J	3.0		100			200uØ								D		
75#	NKT301A	100mØ		#	2.0	.20	30	15	30	.05mØ	1.5	1.0	30		1.0M†				TO8	
76#	NKT302A	100mØ		#	2.0	200m	30	15	30	50uØ	1.5	25m	50		1.0M†				TO8	
77	V15/20IP	100mØ		ØJ	2.0		15	7.0	7.0	.05mØ	1.5	.02	20	100	300k†			A		
78#	V30/20IP	100m		ØJ	2.0		30	15	15	.05mØ	1.5	.02	20	100	300k†			A		
79#	V60/20IP	100m		ØJ	2.0		60	30	30	.05mØ	1.5	.02	20	100	300k†			A		
80	2N2535	133m	1.0	#A	3.0	500m	60	20	30	250u	2.0Ø	400m	40	120	8.0kΔ	500m	12u☒	Δ	MT43	
81	2N2536	133m	1.0	#A	3.0	500m	80	20	40	250u	2.0Ø	400m	40	120	8.0kΔ	500m	12u☒	Δ	MT43	
82	2N83	149m		#S	2.0		66	12			1.5Ø	.50	8.0		350k†					
83	2N83A	149m		#S	2.0		66	12			1.5Ø	.50	8.0		400k†					
84	2N84	149m		#S	2.0		50	12			1.5Ø	.50	12		400k†	1.5				
85	2N84A	149m			3.0		50	12			1.5Ø	.50	12		450k†	1.5				
86#	2SB144P	166m		#J	1.0		30	12	30	1.0m	1.5	1.0	45	119	7.0k†			A		
87	AT200	166m	5.0 Ø	#J	10		320			200uØ								D	TO3	
88#	2SB143P	167mØ		#J	1.0		30	12	30	1.0m	1.5	1.0	23	59	7.0k†			A		
89#	2SB274	185m	12 Ø	#J	6.0		80	1.5		1.0mØ	1.5Ø	1.0 Δ	50 Ø					A	MD24	
90#	2SB275	185m	12 Ø	#J	6.0		120	1.5	105	1.0uØ	1.5Ø	4.0	40 Ø		1.0k†			D	MD24	
91#	2SB276	185m	12 Ø	#J	10		120	1.5	105	1.0uØ	1.2Ø	10	35 Ø		1.0k†			D	MD24	
92	2N325	200m		#J	2.0		35		35	.50mØ	1.0	1.0	35 Ø		150k†				MD9	
93	2N1658	200m	15 Ø	#J	1.0 Ø	500m	80	40	50	500u	2.0Ø	200m	30	90	500k§Δ	250m	5.0u	A	MT9	
94	2N1659	200m	15 Ø	#J	1.0 Ø	500m	60	40	40	500u	2.0Ø	200m	30	90	500k§Δ	250m	5.0u	A	MT9	
95#	2SB83	200mØ		#	3.0		40	10	32	5.0m	1.5	.70	70 Ø		.40k†				TO3	
96#	2SB84	200mØ		#	3.0		60	10	32	5.0m	1.5	.70	70 Ø		.40k†				TO3	
97#	2SB238	200m	13 Ø	#J	1.0		40		30	100u	1.0Ø	300m	40	80	500k†			A	TO8	
98#	GFT2006/30	200m		ØJ	2.0		30	20	15	1.0m	2.0	.50	25	50	400k†	.80		A		
99#	GFT2006/60	200m		ØJ	2.0		60	20	30	1.0mØ	2.0	.50	25	50	400k†	.80		A		
100#	GFT2006/90	200m		ØJ	2.0		90	20	45	1.0mØ	2.0	.50	25	50	400k†	.80		A		
101#	2SB413	208m	12 Ø	#J	1.5		60	1.0	60 §	100uØ	1.0Ø	5.0	30	150	2.0M§			D	MD10	
102#	2SB414	208m	12 Ø	#J	1.5		32	1.0	32 §	100uØ	1.0Ø	5.0	30	150	2.0M§			D	MD10	
103	355	222mØ		ØJ	1.5	.10	35	35		1.0m		1.0						A		
104#	2SB355	250m	15 Ø	#J	1.0	1.0 Ø	25	12	25 Ø	100uØ	1.5Ø	500m	30 Ø	120 Ø				A	MD10	
105#	2SB356	250m	15 Ø	#J	1.0	1.0 Ø	80	12	80 Ø	50uØ	1.5Ø	500m	25 Ø	120 Ø				A	MD10	
106#	2SB357	250m	15 Ø	#J	1.0	1.0 Ø	100	12	100 Ø	50uØ	1.5Ø	500m	20 Ø	120 Ø				A	MD10	
107#	GFT4308/40	250mØ		ØJ	4.0	1.0	40	15	40	.50m	2.0	.50	30	70	10k†	.40	20u	A	MD12	
108#	GFT4308/60	250mØ		ØJ	4.0	1.0	60	15	60	.50m	2.0	.50	30	70	10k†	.40	20u	A	MD12	
109#	GFT4308/80	250mØ		ØJ	4.0	1.0	80	15	80	.50m	2.0	.50	30	70	10k†	.40	20u	A	MD12	
110#	GFT4608/40	250mØ		ØJ	4.0	1.0	40	15	40	.50m	2.0	.50	60	100	12k†	.40	20u	A	MD12	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	GFT4608/60	250mØ		ØJ	4.0	1.0	60	15	60	.50m	2.0	.50	60	100	12kt	.40	20u	A	MD12	
2#	GFT4608/80	250mØ		ØJ	4.0	1.0	80	15	80	.50m	2.0	.50	60	100	12kt	.40	20u	A	MD12	
3#	SFT113	250m		ØJ	3.0	.50	30	10	15	1.0m	2.5Ø	2.0	40 Ø		300kt	.23		A		
4#	SFT114	250m		ØJ	3.0	.50	60	10	30	1.0m	2.5Ø	2.0	40 Ø		300kt	.23		A		
5#	TF80	250m		ØJ	2.5		16			.10mØ	6.0Ø	.30	45 Ø					A		
6	2N1042-2†	263m	1.0 #	J	3.0	1.0	40	20	30	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	MT28	AØ
7	2N1042-2Ø	263m	1.0 #	J	3.0	1.0	40	20	30	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	R122	
8	2N1043-2†	263m	1.0 #	J	3.0	1.0	60	20	40	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	MT28	AØ
9	2N1043-2Ø	263m	1.0 #	J	3.0	1.0	60	20	40	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	R122	
10	2N1044-2†	263m	1.0 #	J	3.0	1.0	80	20	50	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	MT28	AØ
11	2N1044-2Ø	263m	1.0 #	J	3.0	1.0	80	20	50	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	R122	
12	2N1045-2†	263m	1.0 #	J	3.0	1.0	100	20	60	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	MT28	AØ
13	2N1045-2Ø	263m	1.0 #	J	3.0	1.0	100	20	60	.65m	1.0Ø	3.0	20	60	7.0k	.25		AΔ	R122	
14#	GFT3008/20	263mØ		ØJ	3.0		20	10	15	.50m	2.0Ø	.50	25	50	350kt	.40	20u	A	MD12	
15#	GFT3008/40	263mØ		ØJ	3.0		40	10	30	.50m	2.0Ø	.50	25	50	350kt	.40	20u	A	MD12	
16#	GFT3008/60	263mØ		ØJ	3.0		60	10	40	.50m	2.0Ø	.50	25	50	350kt	.40	20u	A	MD12	
17#	GFT3408/20	263mØ		ØJ	3.0		20	10	15	500u	2.0Ø	500m	40	80	400kt	400m	20u	A	MD12	
18#	GFT3408/40	263mØ		ØJ	3.0		40	10	30	.50m	2.0Ø	.50	40	80	400kt	.40	20u	A	MD12	
19#	GFT3408/60	263mØ		ØJ	3.0		60	10	40	.50m	2.0Ø	.50	40	80	400kt	.40	20u	A	MD12	
20#	GFT3408320	263mØ		ØJ	3.0		20	10	15	.50m	2.0Ø	.50	40	80	400kt	.40	20u	A	MD12	
21#	GTL3	266m		ØJ	3.0		20	10	15	5.0m	2.0	500m	25	50	250			A	MD12	
22#	GFT30	270m		ØJ	3.0		30	20	15	1.0m	2.0	.64	20		300kt	.50		A		
23#	GFT3008/80	270mØ		ØJ	3.0		80	10	60	.50m	2.0Ø	.50	25	50	350kt	.40	20u	A		
24#	GFT3408/80	270mØ		ØJ	3.0		80	10	60	.50m	2.0Ø	.50	40	80	400kt	.40	20u	A		
25	LT5201	286m		#J	1.0		60	30	60		6.0Ø	.25	10						TO13	
26	LT5209	286m		#J	1.0		30	15	15	10m	1.0Ø	.50	10						TO13	
27	XD5081	286m		#J			35			.50m	2.0	1.5			.48kt	1.0				
28	XD5082	286m		#J			35			.50m	2.0	1.5			.48kt	1.0				
29	2N157	333mØ		#J	3.0	.50	60	30	60	1.0m	2.0Ø	.50	20		100kt	.75		A	TO3	
30	2N157A	333mØ		#J	3.0	.50	90	30	90	1.0m	2.0Ø	.50	20		100kt	.75		A	TO3	
31	2N352	333m		#J	2.0			20	40	5.0mØ	1.5Ø	1.0	30	140		.80		A		
32	2N1245	333m		#J	4.0	.50	30	15	25	5.0mØ	2.0Ø	.50	50		125kt			A	TO3	
33	2N1246	333m		#J	4.0	.50	30	15	25	5.0mØ	2.0Ø	.50	150		125kt			A	TO3	
34	2N1504	333mØ	23 Ø	#J	3.0	500m	80	30	60	1.0m	2.0Ø	500m	21		4.0k	750m		A	MT12	
35#	2T3011	333m			3.0		40	12	40	2.0m	1.5Ø	1.0	70	103	7.0kt					
36#	2T3021	333mØ		#J	3.0		60	12	60	2.0m	1.5Ø	1.0	49	103	7.0kt			A		
37#	2T3031	333mØ		#J	2.0		30	12	30	3.0m	1.5Ø	1.0	20	47	7.0kt			A		
38#	2T3032	333mØ		#J	2.0		30	12	30	3.0m	1.5Ø	1.0	32	75	7.0kt			A		
39#	2T3033	333mØ		#J	2.0		30	12	30	3.0m	1.5Ø	1.0	51	121	7.0kt			A		
40	AT201	333m	10 Ø	#J	3.0		200			200uØ								D		
41	B1914	333m	20	♦J	5.0	.50			50 Ø		2.0Ø	.60	65			.87		ADΔ	TO3	
42	CK256	333mØ	20 Ø	#J	3.0	500m	30	15	30	1.0m	2.0Ø	500m	25	32 Ø	4.0k	750m		A	MT12	
43	CK258	333mØ	20 Ø	#J	3.0	500m	60	30	60	1.0m	2.0Ø	500m	21		4.0k	750m		A	MT12	
44	CK311	333mØ	20 Ø	#J	3.0	500m	80	30	80 Ø	1.0mØ	2.0Ø	500m	21	40 Ø	4.0k	750m		A	MM3	
45	CK312	333mØ	20 Ø	#J	3.0	500m	100	30	100 Ø	1.0mØ	2.0Ø	500m	21	40 Ø	4.0k	750m		A	MM3	
46	CK313	333mØ	20 Ø	#J	3.0	500m	120	30	120 Ø	1.0mØ	2.0Ø	500m	20	36 Ø	4.0k	750m		A	MM3	
47	CK314	333mØ	20 Ø	#J	3.0	500m	150	30	150 Ø	1.0mØ	2.0Ø	500m	20	36 Ø	4.0k	750m		A	MM3	
48	CK315	333mØ	20 Ø	#J	3.0	500m	200	30		5.0m	2.0Ø	500m	21		4.0k	750m		A	MM3	
49	CK411	333mØ	20 Ø	#J	3.0	500m	80	30	80 Ø	1.0mØ	2.0Ø	500m	21	40 Ø	4.0k	750m		A	MT12	
50	CK412	333mØ	20 Ø	#J	3.0	500m	100	30	100 Ø	1.0mØ	2.0Ø	500m	21	40 Ø	4.0k	750m		A	MT12	
51	CK413	333mØ		#J	3.0	.50	120	30	120 Ø	1.0mØ	2.0Ø	.50	21	36 Ø	4.0k	.75		A	MT12	
52	CK414	333mØ		#J	3.0	.50	150	30	150 Ø	1.0mØ	2.0Ø	.50	21	36 Ø	4.0k	.75		A	MT12	
53	CK415	333mØ		#J	3.0	.50	200	30		5.0m	2.0Ø	.50	21		4.0k	.75		A	MT12	
54#	GTL1	333m		#J	3.0		30			30m								A		
55	LT51	333m		#J	3.0	.50	60	30	60	1.0m	2.0Ø	.50	20		100kt	.75				
56	LT55	333m		#J	3.0	.50	60	15	60	1.0m	2.0Ø	.50	20		100kt	1.0				
57	LT5022	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	20		100kt	1.0			TO3	CØ
58	LT5025	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	40		100kt	1.0			TO3	CØ
59	LT5028	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	60		100kt	1.0			TO3	CØ
60	LT5031	333m		#J	3.0	.50	60	15	60	1.5m	2.0Ø	.50	40		100kt	1.0			TO3	CØ
61	LT5034	333m		#J	3.0	.50	60	15	60	1.5m	2.0Ø	.50	60		100kt	1.0			TO3	CØ
62	LT5038	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	40		100kt	1.0			TO10	FØ
63	LT5039	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	40		100kt	1.0			TO3	CØ
64	LT5042	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	60		100kt	1.0			TO3	CØ
65	LT5045	333m		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	20		100kt	1.0			TO3	CØ
66	LT5048	333mØ		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	40		100kt	1.0			TO3	CØ
67	LT5051	333m		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	60		100kt	1.0			TO3	CØ
68	LT5515	333m		#J	3.0		60	15	60	1.5m	2.0Ø	.50	20		100kt	1.0				
69	TI366	333m			3.0		60		45	.10mØ	1.0Ø	1.0	50			.10		A	TO3	
70	TI367	333m			3.0		60		40	.20mØ	1.0	.50	30			.15		A	TO3	
71	TI368	333m			3.0		45		25	.10mØ	1.0	1.0	50			.10		A	TO3	
72	TI369	333m			3.0		45		23	.20mØ	1.0	.50	30			.15		A	TO3	
73	TI370	333m			3.0		30		15	.20mØ	1.0	.50	30			.15		A	TO3	
74	TS176	333m		#S	2.0		30			1.0mØ	12Ø	.50				.75				
75	2N353	400m		#J	2.0			20	40	5.0m	1.5Ø	1.0	40	150		.80		A		
76#	2SB25	400m		ØJ	1.5		60	12		2.0m	1.5	1.0	34	110	250kt			A	TO3	
77#	2SB26	400m		ØJ	1.5		25	12		16mØ	1.5	1.0	34	110	250kt			A	TO3	
78#	2SB26A	400m	20		3.0		45	12	45 §	16mØ	1.5Ø	1.0	34	115				A	TO3	
79#	2SB122	400m		ØJ	1.5		80	40		2.0m	1.5	1.0	34	110	250kt	.15		A	TO3	
80#	GFT4012	400m			4.0		40	35		.15mØ	2.0Ø	.25	50 Ø			.50				
81#	GFT4012/30	400mØ		ØJ	4.0		30	20	15	1.0m	2.0Ø	1.0	20	70	300kt	.80	30u	A		
82#	GFT4012/60	400mØ		ØJ	4.0		60	20	30	1.0m	2.0Ø	1.0	20	70	300kt	.80	30u	A		
83#	GFT4412/30	400mØ		ØJ	4.0		30	20	15	1.0m	2.0Ø	1.0	40	80	350kt	.80	30u	A		
84#	GFT4412/60	400mØ		ØJ	4.0		60	20	30	1.0m	2.0Ø	1.0	40		350kt	.80	30u	A		
85#	NKT415	400mØ	20	ØJ	3.0		30				1.5	1.0	30	90	250kt				TO3	
86#	NKT416	400mØ	20	ØJ	3.0		60				1.5	1.0	30	90					TO3	
87#	TK400A	400m		#	10	2.0	30	12	15	.10mØ	1.5Ø	10	7.5		250kt			A	TO3	
88#	TK401A	400m		#	10	2.0	80	12	40	.10mØ	1.5Ø	10	9.5		250kt			A	TO3	
89#	TK402A	400m		#	10	2.0	80	12	40	.10mØ	1.5Ø	10	20		250kt			A	TO3	
90#	TK403A	400m		#	7.5	2.0	100	12	40	.10mØ	1.5Ø	7.5	7.5		250kt			A	TO3	
91	X110	400m		#J	5.0				40	1.5mØ		4.0								
92	2N57	434m	20 Ø	♦C	800m		60		30				14							
93	H5B2N3	454mØ		#J	3.5 Ø	500m	110	28	60	5.0m	2.0Ø	2.0	20	50	200k§Δ	300m	300n	A	TO10	
94	2N1261A	455m		#J	3.5 Ø	.50	80	28	45	2.0m	2.0Ø	2.0	20	50	200kt	.30		A		
95	2N1262A	455m		#J	3.5 Ø	.50	80	28	45	2.0m	2.0Ø	2.0	30	75	200kt	.30		A		
96	2N1263A	455m		#J	3.5 Ø	.50	80	28	45	2.0m	2.0Ø	2.0	45	113	200kt	.30		A		
97	B177	455mØ		#J	3.0				30			.50	150 Ø						TO3	
98	B178	455mØ		#J	3.0				30			.50	40 Ø						TO3	
99	B179	455mØ		#J	3.0				40			.50	25 Ø						TO3	
100	H5	455m		#J	3.5	.50	80	28		2.0mØ	2.0Ø	2.0	21	51		.30		A		
101	H6	455m		#J	3.5	.50	80	28		2.0mØ	2.0Ø	2.0	31	75		.30		A		
102	H7	455m		#J	3.5	.50	80	28		2.0mØ	2.0Ø	2.0	46	113		.30		A		
103	H45	455m		#J	3.5	.50	80	28		2.0mØ	2.0Ø	2.0	14	34	240kt	.30	55u	A		
104	2N66	500m		ØJ	.80	.80	60	60	40	1.0m	4.5	.10	25		200kt	2.0		A		
105	2N234	500m	25 Ø	#J	3.0	150m	30		25 §	1.0mØ			25		8.0k					
106	2N235	500m		#J	3.0	.15			40		5.0Ø	1.0	35 Ø			.80				
107	2N236	500m		#J	3.0	.15			40	.33m		.75	30	40						
108	2N285	500m		#J	3.0	.15			40	.50m		.50	125 Ø			.80				
109	2N386	500m§Ø		#J	3.0		60		60	.50mØ	1.5	2.5	20		700kt			AΔ	TO27	
110	2N387	500m§Ø		#J	3.0		80		80	5.0m	1.5	2.5	20		600kt			AΔ	TO27	

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	2N421	500m		#J	5.0	.50	65		45	1.5mØ	2.0Ø	4.0	40	50 Ø	400kt	.50	15u	Δ		
2	2N1433	500m		#J	3.5	.50	80	28	50	2.0m	2.0Ø	2.0	20	50	200kt	.75		A	TO10	
3	2N1434	500m		#J	3.5	.50	80	28	50	2.0m	2.0Ø	2.0	45	115	200kt	.50		A	TO10	
4	2N1435	500m		#J	3.5	.50	80	28	50	2.0m	2.0Ø	2.0	30	75	200kt	.30		A	TO10	
5#	2SB64	500m	25 Ø	ØJ	6.0		100	1.0	100 §	330uØ	1.5Ø	1.0	34	160	1.0Mt			D	TO3	
6#	2SB69	500m	25 Ø	ØJ	6.0		60	1.0	60 §	330uØ	1.5Ø	1.0	34	160	1.0Mt			D	TO3	
7#	2SB123	500m		ØJ	5.0		40	12		2.0m	1.5	5.0	50 Ø		250kt	.09		A	TO3	
8#	2SB149	500m		ØJ	8.0		40	30		10m	1.5	5.0	60 Ø		250kt	50m		A	TO3	
9#	2SB231	500mØ		ØJ	6.0	1.0	120	1.0	120	5.0m	1.5	5.0	25	200	1.0Mt	.06	1.2u	D	TO3	
10#	147T1	500m		#J	3.0		60	30	40	1.0m	2.0	2.0	20	150	200kt	130m			TO3	
11	A1392	500m	10	#J	10		155	4.0	150	60mt	1.0Ø	10 Δ	16					AD	TO3	
12	B113	500m		#J	5.0		80					4.0								
13	B114	500m		#J	3.0				40			.75								
14	B121	500m		#J	3.0				30			.50								
15	B1017	500mØ		#J	3.0				20				25 Ø							
16	B10064	500m	10	#J	4.0	1.0			3.0	.50m	2.0Ø	1.0	15			.12		DΔ	TO3	
17	B10069	500m	10	#J	4.0	1.0			3.0	.50m	2.0Ø	1.0	15			.12		DΔ	TO41	
18#	CTP1104	500m		#J	3.0		40	10	30	2.0m	2.0Ø	2.0	10		4.0kΔ			A	TO3	
19#	GET571	500m		#J	12	2.0	16	6.0	16	2.0m	.50	12	8.0	25	350kt	.40		A	MD2	
20#	GET572	500m		#J	12	8.0	32	12	32	2.0m	.50	12	8.0	25	350kt	.40		A	MD2	
21#	GET573	500m		#J	12	2.0	64	12	40	2.0m	.50	12	8.0	25	350kt	.40		A	MD2	
22#	GET574	500mØ		#J	12	2.0	32	12	32	2.0m	2.0	1.0	40 Ø		350kt	.40		A	MD2	
23#	GET581	500mØ		#J	6.0		80	40	60		1.0	6.0	15	30				A	TO3	
24#	GET582	500mØ		#J	6.0		80	40	32		1.0	6.0	20	65				A	TO3	
25#	GET583	500mØ		#J	6.0		60	20	32		1.0	6.0	20	45				A	TO3	
26#	GET584	500mØ		#J	6.0		60	20	32		1.0	6.0	35	80				A	TO3	
27#	GET585	500mØ		#J	4.0		40	10	40		1.0	4.0	12 Ø					A	TO13	
28#	GET586	500mØ		#J	3.0		32	10			1.0	3.0	15	50				A	TO13	
29	LT5054	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	30		100kt	1.0			TO3	CØ
30	LT5057	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	60		100kt	1.0			TO3	CØ
31	LT5060	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	100		100kt	1.0			TO3	CØ
32	LT5063	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	30		100kt	1.0			TO3	CØ
33	LT5066	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	60		100kt	1.0			TO3	CØ
34	LT5069	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	100		100kt	1.0			TO3	CØ
35	LT5072	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	30		100kt	1.0			TO3	CØ
36	LT5075	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	60		100kt	1.0			TO3	CØ
37	LT5078	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	100		100kt	1.0			TO3	CØ
38	LT5081	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	30		100kt	1.0			TO3	CØ
39	LT5084	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	60		100kt	1.0			TO3	CØ
40	LT5087	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	100		100kt	1.0			TO3	CØ
41	LT5157	500m		#J	4.5		100	15	90	3.0m	2.0Ø	.75	30		100kt	1.0				
42	LT5158	500m		#J	4.5		100	15	90	3.0m	2.0Ø	.75	30		100kt	1.0				
43	LT5159	500m		#J	4.5		100	15	90	3.0m	2.0Ø	.75	30		100kt	1.0				
44#	SFT150	500mØ		#J	3.0	.50	80	40	40	1.0m	2.5Ø	2.0			300kt	.17		A		
45#	TF90/30	500m		#J		15	32	10	32		.50Ø	5.0	50 Ø							
46#	TF90/60	500m		ØJ	15		64	20	64		.50Ø	5.0								
47#	V15/10DP	500m		ØJ	3.0		15	5.0	5.0	.10mØ	1.5	.20	10	20	200kt			A	TO3	
48#	V15/10P	500mØ		ØJ	3.0		15	5.0	5.0	.10mØ	1.5	.02	10	20	200kt			A		
49#	V15/20DP	500m		ØJ	3.0		15	5.0	5.0	.10mØ	1.5	.20	20	30	200kt			A	TO3	
50#	V15/20P	500mØ		ØJ	3.0		15	5.0	5.0	.10mØ	1.5	.20	20	30	200kt			A		
51#	V15/30DP	500m		ØJ	3.0		15	5.0	5.0	.10mØ	1.5	.20	30	30	200kt			A	TO3	
52#	V15/30P	500mØ		ØJ	3.0		30	5.0	5.0	.10mØ	1.5	.20	30		200kt			A		
53#	V30/10DP	500m		ØJ	3.0		30	10	10	.10mØ	1.5	.20	10	20	200kt			A	TO3	
54#	V30/10P	500mØ		ØJ	3.0		30	10	10	.10mØ	1.5	.20	10	20	200kt			A		
55#	V30/20DP	500m		ØJ	3.0		30	10	10	.10mØ	1.5	.20	20	30	200kt			A	TO3	
56#	V30/20P	500mØ		ØJ	3.0		30	10	10	.10mØ	1.5	.20	20	30	300kt			A		
57#	V30/30DP	500m		ØJ	3.0		30	10	10	.10mØ	1.5	.20	20		200kt			A	TO3	
58#	V30/30P	500mØ		ØJ	3.0		30	10	10	.10mØ	1.5	.20	30		200kt			A		
59#	V60/10DP	500m		ØJ	3.0		60	20	20	.10mØ	1.5	.20	10	20	200kt			A	TO3	
60#	V60/10P	500mØ		ØJ	3.0		60	20	20	.10mØ	1.5	.20	10	20	200kt			A		
61#	V60/20DP	500m		ØJ	3.0		60	20	20	.10mØ	1.5	.20	20	30	200kt			A	TO3	
62#	V60/20P	500mØ		ØJ	3.0		60	20	20	.10mØ	1.5	.20	20	30	200kt			A		
63#	V60/30DP	500m		ØJ	3.0		60	20	20	.10mØ	1.5	.20	30	38 Ø	200kt			A	TO3	
64#	V60/30P	500mØ		ØJ	3.0		60	20	20	.10mØ	1.5	.20	30	38 Ø	200kt			A		
65	X113	500m		#J	4.0		70					4.0								
66	X133	500m		#J	4.0				60			4.0	20 Ø							
67#	2SB119	588mØ		ØJ	3.0	.50	32	10	16	.20mØ	1.0Ø	3.0	6.0		200kt			A		
68#	2SB119A	588mØ		ØJ	3.0	.50	60	10	30	.20mØ	1.0Ø	3.0	6.0		200kt			A		
69	2N1014	666mØ		#C	5.0	2.0	100	60	65	500uØ	1.5Ø	1.0			6.5kt		90u	A	TO3	
70	2N1182	666m	50 Ø	#J	5.0		60	12	60	500u	12Ø	500m	35	85	5.0kΔ	450m		A	TO3	
71#	2S41	666m	8.0	#S	1.2	1.2 Ø	40	12		2.0mØ			62 Ø					A		
72#	2SB129A	666m		#J	6.0		120	60	60	220uØ	1.0Ø	6.0	30	80				A	TO3	
73#	2SB312	666m	43 Ø	#J	8.0		140	1.0		220uØ	1.0Ø	8.0	14	100		110m		D	TO3	
74#	2SB313	666m	43 Ø	#J	10		180	1.0		220uØ	1.0Ø	8.0	14	100		110m		D	TO3	
75#	2SB471A	666m	30 Ø	#J	10	3.0	60	10	45 §	500uØ	2.0Ø	1.0	50	100	300kt			A	MD6	
76#	2SB471B	666m	30 Ø	#J	10	3.0	60	10	45 §	500uØ	2.0Ø	1.0	80	165	300kt			A	MD6	
77#	2SB472A	666m	30 Ø	#J	10	3.0	80	10	50 §	500uØ	2.0Ø	1.0	50	100	300kt			A	MD6	
78#	2SB472B	666m	30 Ø	#J	10	3.0	80	10	50 §	500uØ	2.0Ø	1.0	80	165	300kt			A	MD6	
79#	146T1	666m		#J	3.0		40	20	30	1.0m	2.0	2.0	20	150	200kt	130m			TO3	
80#	ADY25	666m	40 Ø	#J	7.5	2.0	100	12	60	110uØ	0.0	1.0	150 Ø		250kt			A	TO3	
81	B1913	666m	5.0	♦J	3.0	300m			50 Ø		2.0Ø	600m	65			870m		ADΔ	TO37	
82	B10142	666m	30 Ø	♦J	10				325 Ø	1.0mØ	2.0Ø	6.0	20			80m	1.0u#	DΔ	TO3Ø	
83	B10142A	666m	30 Ø	♦J	10				290 Ø	1.0mØ	2.0Ø	6.0	20			80m	1.0u#	DΔ	TO3Ø	
84	B10142B	666m	30 Ø	♦J	10				225 Ø	1.0mØ	2.0Ø	6.0	20			80m	1.0u#	DΔ	TO3Ø	
85	B10143	666m	40 Ø	♦J	15				290 Ø	1.0mØ	2.0Ø	9.0	25			80m	1.2u#	DΔ	TO3Ø	
86	B10143A	666m	40 Ø	♦J	15				225 Ø	1.0mØ	2.0Ø	9.0	25			80m	1.2u#	DΔ	TO3Ø	
87	B10143B	666m	40 Ø	♦J	15				165 Ø	1.0mØ	2.0Ø	9.0	25			80m	1.2u#	DΔ	TO3Ø	
88	CTP1111	666m	45 Ø	#J	3.0	2.0	80	45	60 §	5.0m	2.0Ø	2.0	20 †	7.0	1.0k			AΔ	TO3	
89#	NKT450	666m	43 Ø	#J	3.0	500m	36	10	36	100uØ	0.0Ø	1.0	30						MD17d	CØ
90#	SFT211	666m	45 Ø	#C	6.0	1.0	80	40	80 §	2.0m	2.0Ø	2.0	30	100	8.0k	260m		A	TO3	
91#	XC155	666mØ		#S	5.0	2.0	80	60	50	500uØ	1.5Ø	1.0			650kt		90u	AΔ		
92#	XC156	666mØ		#S	5.0	2.0	100	60	65	500uØ	1.5Ø	1.0			6.5kt		90u	A		
93	2N463	667m	50	#J	5.0	1.0	60	50		.30mØ	2.0Ø	2.0	20	60	5.0kΔ	.08	4.6u	A	TO32	
94	2N1453	667mØ			5.0	1.0	30	15	25	2.0m	2.0Ø	1.0	40	90		.35		A	TO13	
95	2N1454	667mØ		#	5.0	1.0	30	15	25	2.0m	2.0Ø	1.0	70	150		.35		A	TO13	
96	2N1455	667mØ		#	5.0	1.0	60	15	50	2.0m	2.0Ø	1.0	40	90		.35		A	TO13	
97	2N1456	667mØ		#	5.0	1.0	60	15	50	2.0m	2.0Ø	1.0	70	150		.35		A	TO13	
98	2N1457	667mØ		#	5.0	1.0	80	15	65	2.5m	2.0Ø	1.0	40	90		.35		A	TO13	
99	2N1458	667mØ		#	5.0	1.0	80	15	65	2.5m	2.0Ø	1.0	70	150		.35		A	TO13	
100	2N1461	667mØ		#	5.0	1.0	30	15	25	2.0m	2.0Ø	1.0	40	90		.35		A	TO10	
101	2N1462	667mØ		#	5.0	1.0	30	15	25	2.0m	2.0Ø	1.0	70	150		.35		A	TO10	
102	2N1463	667mØ		#	5.0	1.0	60	15	50	2.0m	2.0Ø	1.0	40	90		.35		A	TO10	
103	2N1464	667mØ		#	5.0	1.0	60	15	50	2.0m	2.0Ø	1.0	70	150		.35		A	TO10	
104#	2SB232	667m		#J	6.0		130	.50		.22mØ	1.0Ø	.20	20					D	TO3	
105#	2SB233	667m		#J	6.0		130	.50		.22mØ	1.0Ø	.20	100					D	TO3	
106#	2SB234	667m		#J	1.5		180	13		.22mØ	1.0Ø	6.0	15					D	TO3	
107	B134	667m		#J	15				40	2.0mØ	3.0Ø	10	15			.20				
108	B134A	667m		#J	15				70	5.0mØ	3.0Ø	10	15			.20				
109	B134B	667m		#J	15				80	5.0mØ	3.0Ø	10	15			.20				
110	B10144	667m	50	♦J	20				165 Ø	1.0m	2.0Ø	15	25			.03	1.5u#	ADΔ	TO3	

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	B10144A	667m	50	♦J	20				130 Ø	1.0m	2.0Ø	15	25			.03	1.5u#	ADΔ	TO3	
2	B10144B	667m	50	♦J	20				100 Ø	1.0m	2.0Ø	15	25			.03	1.5u#	ADΔ	TO3	
3	CTP1112	667m		#J	3.0		80		75			2.0	20		300kt			A		
4	CTP1117	667m		#J	3.0		40		40			1.0			300kt			A		
5	CTP1127	667m		#J			80		60			2.0			300kt			A		
6	CTP1133	667m		#J			40	6.0				.50						A		
7	CTP1135	667m	40	#J			40	20				.50 Ø	40			.50		A		
8	CTP1137	667m		#J			40		40			.50						A		
9	CTP1265	667m			8.0	.60	60		50	20m	2.0Ø	5.0	30	75				AΔ	TO3	
10	CTP1266	667m			8.0	.30	60		50	20m	2.0Ø	5.0	60	150				AΔ	TO3	
11	CTP1296	667m			8.0	.60	80		65	20m	2.0Ø	5.0	30	75				AΔ	TO3	
12	CTP1297	667m			8.0	.30	80		65	20m	2.0Ø	5.0	60	150				AΔ	TO3	
13	CTP1306	667m			8.0	.60	40		35	20m	2.0Ø	5.0	30	75				AΔ	TO3	
14	CTP1307	667mØ			8.0	.30	40		35	20m	2.0Ø	5.0	60	150				AΔ	TO3	
15	CTP1314	667m			8.0	.60	100		75	20m	2.0Ø	5.0	30	75				AΔ	TO3	
16#	GET7	667m		ØJ	8.0		15			1.5mØ	1.5	5.0			250kt			A		
17#	GET8	667m		ØJ	8.0		30			1.5mØ	1.5	5.0			250kt			A		
18#	GET9	667m		ØJ	8.0		60			1.5mØ	1.5	5.0			250kt			A		
19	LT5090	667m		#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	40		100kt	1.0			TO3	CØ
20	LT5093	667m		#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	80		100kt	1.0			TO3	CØ
21	LT5096	667m		#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	160		100kt	1.0			TO3	CØ
22	LT5099	667m		#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	40		100kt	1.0			TO3	CØ
23	LT5102	667m		#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	80		100kt	1.0			TO3	CØ
24	LT5105	667m		#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	160		100kt	1.0			TO3	CØ
25	LT5108	667m		#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	40		100kt	1.0			TO3	CØ
26	LT5111	667m		#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	80		100kt	1.0			TO3	CØ
27	LT5114	667m		#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	160		100kt	1.0			TO3	CØ
28	LT5117	667m		#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	40		100kt	1.0			TO3	CØ
29	LT5120	667m		#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	80		100kt	1.0			TO3	CØ
30	LT5123	667m		#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	160		100kt	1.0			TO3	CØ
31	LT5160	667m		#J	6.0		100	15	90	4.0m	2.0Ø	1.0	40		100kt	1.0				
32	LT5161	667m		#J	6.0		100	15	90	4.0m	2.0Ø	1.0	40		100kt	1.0				
33	LT5162	667m		#J	6.0		100	15	90	4.0m	2.0Ø	1.0	40		100kt	1.0				
34#	NKT452S1	667m		#J	3.0	.50	60	10	60 Ø	.10mØ	1.5	1.0	30	100					TO3	
35	X134	667m		#J	12				40			10								
36	X137	667m		#J	12				60			10								
37#	2SB296	714m	30 Ø	ØJ	10		160	3.0	160 Ø	330uØ	1.5Ø	10	25	200	1.5Mt	150m		DΔ	MD6	
38#	2SB300	735m	35 Ø	ØJ	10		100	1.0	100 §	330uØ	1.5Ø	5.0	30	200				D	TO3	
39#	2SB301	735m	35 Ø	ØJ	10		60	1.0	60 §	330uØ	1.5Ø	5.0	30	200				D	TO3	
40#	2SB228	757mØ			5.0	2.0	80	50	35	5.0m	1.5Ø	4.0	20	54		160m		A	TO3	
41#	2SB229	757mØ			5.0	2.0	100	50	40	5.0m	1.5Ø	4.0	20	54		160m		A	TO3	
42#	2SB230	757mØ			5.0	2.0	120	50	50	5.0m	1.5Ø	4.0	20	54		160m		A	TO3	
43#	2SB85	769mØ		#J	5.0	2.0	40	20	25	3.0m	1.5Ø	4.0	14					A		
44#	2SB86	769mØ		#J	5.0	2.0	60	20	35	3.0m	1.5Ø	4.0	14					A		
45#	2SB87	769mØ		#J	5.0	2.0	80	60	50	3.0m	1.5Ø	4.0	20					A		
46	2N290	833m	55 Ø	#J	12		70	60		1.0m	2.0	1.2	72 Ø		400k	50m		Δ	TO6	
47	2N391	833m		#J	5.0	1.0	50	20	40	8.0m	2.0	3.0	30	75			10u	A		
48#	2SB124	833m		ØJ	15		60	25		10m	1.5	15	70 Ø		300kt	.02		A	MS1	
49#	2SB125	833m		ØJ	15		36	25		10m	1.5	15	70 Ø		300kt	.02		A	MS1	
50#	2SB148	833m		ØJ	15		80	20		10m	1.5	15	70 Ø		300kt	.02		A	MS1	
51#	2SB246	833m	54 Ø	#J	5.0		40		25	500u	1.5Ø	2.0	40	80	350kt			A	TO3	
52#	2SB358	833m	50 Ø	#J	6.0	6.0 Ø	80	1.5	80 Ø	5.0m	1.5Ø	4.0	10	100 Ø				D	TO3	
53#	2SB359	833m	50 Ø	#J	10	10 Ø	120	1.5	120 Ø	5.0m	1.5Ø	4.0	10	100 Ø				D	TO3	
54#	2SB360	833m	50 Ø	#J	10	10 Ø	80	1.5	180 Ø	5.0m	1.5Ø	4.0	10	100 Ø				D	TO3	
55	B1151	833mØ		#	15		30	25	25	2.0mØ	2.0	4.0	20		400kt	.25			TO3	
56	B1151A	833mØ		#	15		50	25	40	2.0mØ	2.0	4.0	20		400kt	.25			TO3	
57	B1151B	833mØ		#	15		80	25	70	2.0mØ	2.0	4.0	20		400kt	.25			TO3	
58	B1152	833mØ		#	15		30	25	25	2.0mØ	2.0	8.0	20		400kt	.13			TO3	
59	B1152A	833mØ		#	15		50	25	40	2.0mØ	2.0	8.0	20		400kt	.13			TO3	
60	B1152B	833mØ		#	15		80	25	70	2.0mØ	2.0	8.0	20		400kt	.13			TO3	
61	B10060	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	25			.06		DΔ	TO3	
62	B10061	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	15			.06		DΔ	TO3	
63	B10062	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	25			.06		DΔ	TO3	
64	B10063	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	15			.06		DΔ	TO3	
65	B10065	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	25			.06		DΔ	TO41	
66	B10066	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	15			.06		DΔ	TO41	
67	B10067	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	25			.06		DΔ	TO41	
68	B10068	833m	60	♦J	14	2.0			80 Ø		2.0Ø	12	15			.06		DΔ	TO41	
69#	GFT8024	833mØ		ØJ	8.0		30	15	15		2.0	8.0	20			.15		A		
70	MP2137	833m	70 Ø	♦J			30	15	20	2.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
71	MP2137A	833m	70 Ø	♦J			30	15	20	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
72	MP2138	833m	70 Ø	♦J			45	25	30	2.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
73	MP2138A	833m	70 Ø	♦J			45	25	30	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
74	MP2139	833m	70 Ø	♦J			60	30	45	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
75	MP2139A	833m	70 Ø	♦J			60	30	45	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
76	MP2140	833m	70 Ø	♦J			75	40	60	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
77	MP2140A	833m	70 Ø	♦J			75	40	60	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
78	MP2141	833m	70 Ø	♦J			90	45	65	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
79	MP2141A	833m	70 Ø	♦J			90	45	65	5.0mt	2.0Ø	500m	30	60	20k	250m		A	TO41	CØ
80	MP2142	833m	70 Ø	♦J			30	15	20	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
81	MP2142A	833m	70 Ø	♦J			30	15	20	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
82	MP2143	833m	70 Ø	♦J			45	25	30	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
83	MP2143A	833m	70 Ø	♦J			45	25	30	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
84	MP2144	833m	70 Ø	♦J			60	30	45	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
85	MP2144A	833m	70 Ø	♦J			60	30	45	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
86	MP2145	833m	70 Ø	♦J			75	40	60	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
87	MP2145A	833m	70 Ø	♦J			75	40	60	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
88	MP2146	833m	70 Ø	♦J			90	45	65	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
89	MP2146A	833m	70 Ø	♦J			90	45	65	5.0mt	2.0Ø	500m	50	100	20k	250m		A	TO41	CØ
90	2N115	1.0		ØJ	3.0	.50	32	10		.10mØ	14Ø	.30		90	200kt	.27		AΔ		
91	JAN2N174	1.0	70 Ø	#J			80	60	80 Ø	15m	2.0Ø	1.2	40	80	100kΔ	60m			TO6	
92	2N179	1.0		#S	1.0				40	3.0mØ	12Ø	.50 Ø	10			1.0		A		
93	2N1315	1.0		#J	3.5		32	10	32	.10mØ	6.0	3.5		64	300kt			A		
94	2N2069	1.0 Ø	75 Ø	#J	12		40	20	30 Ø	15m	2.0Ø	5.0	30	200					TO3	
95	2N2070	1.0 Ø	75 Ø	#J	12		80	30	60 Ø	15m	2.0Ø	5.0	30	200					TO3	
96	2N2071	1.0 Ø	75 Ø	#J	12		40	20	30 Ø	15m	2.0Ø	5.0	30	200				AΔ	TO41	
97	2N2072	1.0 Ø	75 Ø	#J	12		80	30	60 Ø	15m	2.0Ø	5.0	30	200				AΔ	TO41	
98	JAN2N2210	1.0	70 Ø	#S		200m	100	60	80	4.0m	2.0Ø	5.0	25	50	5.0kΔ	50m			MT63a	BØ
99#	2SB258	1.0	60 Ø	ØJ	15		120	1.0		3.5mØ	1.5Ø	5.0	38	280	1.5Mt			AD	TO36	
100#	2SB259	1.0	60 Ø	ØJ	15		80	1.0		3.5mØ	1.5Ø	5.0	38	280	1.5Mt			AD	TO36	
101#	2SB260	1.0	60 Ø	ØJ	15		50	1.0		3.5mØ	1.5Ø	5.0	38	280	1.5Mt			AD	TO36	
102#	ADY18	1.0 Ø	45 Ø	ØJ	15	3.0	60	25	15	2.0m	2.0Ø	3.0	10	15 Ø	100kt			A	MT15	
103	B1110	1.0	60	#J	3.0				60	2.0m						.20		Δ	TO3	
104	CTP1505	1.0		#J	13		60		45		2.0Ø	5.0	15	45		.13				
105	CTP1506	1.0		#J	13		50		35		2.0Ø	5.0	35	70		.13				
106	CTP1507	1.0		#J	13		50		35		2.0Ø	5.0	15	45		.13				
107	CTP1509	1.0		#J	13		40		30		2.0Ø	5.0	15	45		.13				
108	CTP1511	1.0		#J	13		100		75		2.0Ø	5.0	60	120						
109	CTP1512	1.0		#J	13		80		60		2.0Ø	5.0	60	120						
110	CTP1513	1.0		#J	13		60		40		2.0Ø	5.0	60	120						

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DESCRIPTION DWG. No.	LEAD CODE
1	CTP1514	1.0		#J	13		40		30		2.0Ø	5.0	60	120						
2#	CTP1545	1.0	1.7 *	#J	25		80	30	40	15m	2.0Ø	25	25 †	125 †	4.0k	40m			TO3	
3#	CTP1553	1.0	1.7 *	#J	25		100	30	50	20m	2.0Ø	25	25 †	125 †	4.0k	40m			TO3	
4	H200E	1.0		#J	10		60	30	30	2.0m	2.0Ø	5.0	20		400k†	.10		AΔ		
5	MN21	1.0		#J	3.0		80			2.0m	4.0Ø	1.0	40	80	280k†	.50		A		
6	MN28	1.0		#J	3.0		30			5.0m	2.0Ø	.50	30	100		2.0		A		
7	MN29	1.0		#J	3.0		40			5.0mØ	2.0Ø	.50	30	100		2.0		A		
8	MN32	1.0		#J	3.0		30			3.0m	12	.50 Ø	30	70		.80		A		
9#	OD650	1.0 Ø	45 Ø	ØJ	15	3.0	60	20	25	2.0m	2.0Ø	15	10	25 Ø	100k†			A	MT15	
10#	OD650B	1.0 Ø	45 Ø	ØJ	5.0	1.0	60	20	25	2.0m	2.0Ø	5.0	15	25 Ø	100k†			A	MT15	
11#	OD651	1.0 Ø	45 Ø	ØJ	15	3.0	60	25	40	2.0m	2.0Ø	15	10	15 Ø	100k†			A	MT15	
12#	OD651A	1.0 Ø	45 Ø	ØJ	15	3.0	60	25	30	2.0m	2.0Ø	15	10	25 Ø	100k†			A	MT15	
13#	V15/15NP	1.0 Ø		ØJ	6.0		15	4.0	5.0	.10mØ	1.5	2.0	15	30	150k†			A		
14#	V15/30NP	1.0 Ø		ØJ	6.0		15	4.0	5.0	.10mØ	1.5	2.0	30	60	150k†			A		
15#	V30/15NP	1.0 Ø		ØJ	6.0		30	8.0	10	.10mØ	1.5	2.0	15	30	150k†			A		
16#	V30/30NP	1.0 Ø		ØJ	6.0		30	8.0	10	.10mØ	1.5	2.0	30	60	150k†			A		
17#	XC141	1.0		#S	2.0		40	12	40	3.0mØ	1.5	1.0		70				A	TO3	
18#	XC142	1.0			2.0		60	12	40	3.0mØ	1.5	1.0		70				A	TO3	
19#	2G223	1.1 Ø		#J	15	5.0	40	30		2.0mØ	1.5Ø	15	10	12 Ø	250k†	50m	11u	A	MD4	
20#	2G224	1.1 Ø		#J	15	5.0	60			2.0mØ	1.5Ø	15	10	12 Ø	250k†	50m	11u	A	MD4	
21#	2G225	1.1 Ø		#J	15	5.0	80			2.0mØ	1.5Ø	15	10	12 Ø	250k†	50m	11u	A	MD4	
22#	2G226	1.1 Ø		#J	20	5.0	40			2.0mØ	1.5Ø	20	10	12 Ø	300k†	50m	10u	A	MD4	
23#	2G227	1.1 Ø		#J	20	5.0	60			2.0mØ	1.5Ø	20	10	12 Ø	300k†	50m	10u	A	MD4	
24#	2G228	1.1 Ø		#J	20	5.0	80			2.0mØ	1.5Ø	20	10	12 Ø	300k†	50m	10u	A	MD4	
25#	2G229	1.1 Ø		#J	25	5.0	40	30		2.0m	1.5Ø	25	10	12 Ø	350k†	.05	10u	A	MD4	
26#	2G230	1.1 Ø		#J	25	5.0	60	30		2.0mØ	1.5Ø	25	10	12 Ø	300k†	.05	10u	A	MD4	
27#	2G231	1.1 Ø		#J	25	5.0	80	30		2.0mØ	1.5Ø	25	10	12 Ø	300k†	.05	10u	A	MD4	
28	2N1029	1.2	90 Ø	#J	15	1.5	50	25	30 Ø	15m	2.0Ø	10	20	60		100m	15u	AΔ	MD16	
29	2N1030	1.2	90 Ø	#J	15	1.5	50	25	30 Ø	15m	2.0Ø	10	50	100		100m	15u	AΔ	MD16	
30	2N1030A	1.2	90 Ø	#J	15	1.5	60	25	40 Ø	15m	2.0Ø	10	50	100		100m	15u	AΔ	MD16	
31	2N1030B	1.2	90 Ø	#J	15	1.5	90	25	70 Ø	15m	2.0Ø	10	50	100		100m	15u	AΔ	MD16	
32	2N2211	1.2	90 Ø	#	5.0	3.0	80	40	60 Ø	20m	4.0Ø	1.0	60	140	5.0k				TO3	
33	2N2446†	1.2	90 Ø	♦S	7.0	5.0	60	20	50	2.0m	2.0Ø	5.0	15	45	3.0k§Δ		30uØ		TO3	
34	2N3132	1.2	90 Ø	#C	5.0	5.0	100	40	70 Ø	5.0m#	2.0Ø	2.0	40	200	3.0kΔ	300m	20uØØ	Δ	TO3Ø	
35	CRT1544	1.2	90 Ø	#J	25	5.0	60	30	40 Ø	15m	2.0Ø	25	25	125	5.0k	40m		AΔ	TO41	A
36	CRT1545	1.2	90 Ø	#J	25	5.0	80	30	60 Ø	15m	2.0Ø	25	25	125	5.0k	40m		AΔ	TO41	A
37	CRT1552	1.2	90 Ø	#J	25	5.0	40	30	30 Ø	10m	2.0Ø	25	25	75	5.0k	40m		AΔ	TO41	A
38	CRT1553	1.2	90 Ø	#J	25	5.0	100	30	75 Ø	10m	2.0Ø	25	25	75	5.0k	40m		AΔ	TO41	A
39	DTG1000	1.2		♦J	15	3.0			100		2.0Ø	8.0	20	50 Ø				A	TO41	
40	DTG1110B†	1.2			15	3.0	250		80		2.0	4.0	25	150	350k§	160m	6.0u	D	TO3	
41	DTG1210A†	1.2			15	3.0	250		40		2.0	1.0	35		350k§	160m	6.0u	D	TO3	
42#	NKT501	1.2	90 Ø	#J	25	4.0	60	12	60 Ø	300uØ	1.5	25	12		650k†			A	TO3	
43#	NKT502	1.2	90 Ø	#J	25	4.0	30	12	30 Ø	300uØ	1.5	25	12		650k†			A	TO3	
44#	NKT503	1.2	90 Ø	#J	25	4.0	60	12	60 Ø	300uØ	1.5	10	12		650k†			A	TO3	
45#	NKT504	1.2	90 Ø	#J	25	4.0	30	12	30 Ø	300uØ	1.5	10	12		650k†			A	TO3	
46	TI366A	1.2	25 Ø		3.0		60		45	.10mØ	1.0Ø	1.0	50			.10		A	TO3	
47	TI367A	1.2	25 Ø		3.0		60		40	.20mØ	1.0Ø	.50	30			.15		A	TO3	
48	TI368A	1.2	25 Ø		3.0		45		25	.10mØ	1.0Ø	1.0	50			.10		A	TO3	
49	TI369A	1.2	25 Ø		3.0		45		23	.20mØ	1.0Ø	.50	30			.15		A	TO3	
50	TI370A	1.2	25 Ø		3.0		30		45	.20mØ	1.0Ø	.50	30			.15		A	TO3	
51	TS610	1.2 Ø	106 Ø	♦J	5.0		25	20	20 Ø	5.0m	2.0Ø	2.0	15		4.0k†		25u	A	TO3	
52	USAF506ESO10M	1.2 §	20 Ø	#J	15	4.0	80	60	60	200uØ	2.0Ø	5.0	25	50	5.0kΔ	100m		A	TO36Ø	
53	2N301B	1.3	90	#J			40		32 Ø										TO3	
54	2N301G	1.3	90	#J			40		32 Ø										TO3	
55	2N301W	1.3	90	#J			40		32 Ø										TO3	
56	2N1030C	1.3	90 Ø#	J	15	1.5	100	25	80 Ø	15m	2.0Ø	10	50	100		.10	15u	AΔ	MD16	
57	2N1358M	1.3		♦J	15	4.0	80	40	40	4.0m	2.0Ø	5.0	25	50	5.0k	.06	15u		TO36	
58	2N1419	1.3 Ø							70	15m	2.0Ø	25	40	100		.35	20u		TO3	
59#	2SB477	1.3	80 Ø	#J	30	3.0	30	15	15	5.0m	2.0Ø	15	20	130		80m		A	TO36	
60#	2SB478	1.3	80 Ø	#J	30	3.0	60	30	30	5.0m	2.0Ø	15	20	130		80m		A	TO36	
61#	2SB479	1.3	80 Ø	#J	30	3.0	80	40	40	5.0m	2.0Ø	15	20	130		80m		A	TO36	
62#	2SB480	1.3	80 Ø	#J	30	3.0	100	50	50	5.0m	2.0Ø	15	20	130		80m		A	TO36	
63	B1368B	1.3 Ø		♦J	25				100	10mØ	2.0Ø	10	35	140				DAΔ	TO41	
64	B1368C	1.3 Ø		♦J	25				100	10mØ	2.0	10	35	140			2u#Ø	DAΔ	TO41	
65#	CRT1592	1.3		#J	35		80		60	4.0m	4.0Ø	35	12					AΔ	TO3	
66	CTP1530	1.3		#J	13	4.0	100		80			5.0	25	50	10k†	.06				
67	CYT1549	1.3		#J	15		40		20	3.0mØ	2.0Ø	10	10	30				AΔ	TO41	
68	CYT1550	1.3		#J	15		60		30	3.0mØ	2.0Ø	10	10	30				AΔ	TO41	
69	CYT1551	1.3		#J	15		80		40	3.0mØ	2.0Ø	10	10	30				AΔ	TO41	
70	CYT1552	1.3		#J	15		100		50	3.0mØ	2.0Ø	10	10	30				AΔ	TO41	
71	CYT1553	1.3		#J	15		40		20	3.0mØ	2.0Ø	10	30	60				AΔ	TO41	
72	CYT1554	1.3		#J	15		60		30	3.0mØ	2.0Ø	10	30	60				AΔ	TO41	
73	CYT1555	1.3		#J	15		80		40	3.0mØ	2.0Ø	10	30	60				AΔ	TO41	
74	CYT1556	1.3		#J	15		100		50	3.0mØ	2.0Ø	10	30	60				AΔ	TO41	
75	CYT1557	1.3		#J	15		40		20	3.0mØ	2.0Ø	10	50	100				AΔ	TO41	
76	CYT1558	1.3		#J	15		60		30	3.0mØ	2.0Ø	10	50	100				AΔ	TO41	
77	CYT1559	1.3		#J	15		80		40	3.0mØ	2.0Ø	10	50	100				AΔ	TO41	
78	CYT1560	1.3		#J	15		100		60	3.0mØ	2.0Ø	10	50	100				AΔ	TO41	
79	DTG1011	1.3		♦J	15	3.0			200 #	15m#	1.0Ø	10	40 Ø		420k§	.71	4.0u	A	TO41	
80	DTG1040	1.3		♦J	15	3.0			60 Ø	2.0m	2.0Ø	1.0	45 †	200	420k§			A	TO41	
81	TS748	1.3		§J	15	4.0	80	60		8.0m	2.0	5.0	25	50			10u	A		
82	H10	1.4		#J	15	2.5	60	28		7.0m	2.0Ø	10	10			.05		A		
83#	ADY22	1.5	40 Ø	#J	10	2.0	30	12	15	110uØ	0.0	1.0	110 Ø		250k†	50m		A	TO3	
84#	ADY23	1.5	40 Ø	#J	10	2.0	80	12	40	110uØ	0.0	1.0	150 Ø		250k†			A	TO3	
85#	ADY24	1.5	40 Ø	#J	10	2.0	80	12	40	110uØ	0.0	1.0	150 Ø		250k†			A	TO3	
86	MHT1902	1.6	140 Ø	♦J	65	10	80	30	60	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	MT23	
87	MHT1903	1.6	140 Ø	♦J	65	10	60	30	45	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	MT23	
88	MHT1904	1.6	140 Ø	♦J	65	10	40	20	30	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	MT23	
89	MHT2002	1.6	140 Ø	♦J	65	10	80	30	60	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	MT22	
90	MHT2003	1.6	140 Ø	♦J	65	10	60	30	45	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	MT22	
91	MHT2004	1.6	140 Ø	♦J	65	10	40	20	30	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	MT22	
92	2N1907A	2.0 §	60 Ø	#C	20	3.0	100	2.0	40	10m♦	1.5Ø	10	30	170	20M§Δ	200m			TO3	CØ
93	2N1908A	2.0 §	60 Ø	#C	20	3.0	130	2.0	50	10m♦	1.5Ø	10	30	170	20M§Δ	200m			TO3	CØ
94	2N2155	2.0	170	J	30		90	45	75	4.0m	2.0Ø	5.0	50	100	2.7k†			A	TO36	
95	2N2155A	2.0	170	J	30		90	45	90 Ø	4.0m	2.0Ø	25	15		2.7k†			A	TO36	
96	2N2159	2.0	170	J	30		90	45	75	4.0m	2.0Ø	5.0	80	160	2.7k†			A	TO36	
97	2N2159A	2.0	170	J	30		90	45	90 Ø	4.0m	2.0Ø	25	15		2.7k†			A	TO36	
98	2N2379†	2.0	150 Ø	#C	15	4.0	100	80	80 Ø	8.0m	2.0Ø	5.0	25	37	4.0k	1.2			TO36	
99	2N2793	2.0	170 Ø	♦A	60	10	75	40	60		2.0Ø	15	50	100	2.0kΔ				TO36	
100	MHT1802	2.0	170 Ø	♦J	65	10	80	30	60	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	TO36	
101	MHT1803	2.0	170 Ø	♦J	65	10	60	30	45	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	TO36	
102	MHT1804	2.0	170 Ø	♦J	65	10	40	20	30	5.0m	2.0Ø	65	15		250k§	7.0m	40u	A	TO36	
103	MP503	2.0	170 Ø	♦J	60		90	45	75	4.0m	2.0	15	30	60	3.6k	10m		A	TO36	
104	MP503A	2.0	170 Ø	♦J	60		90	45	75	4.0m	2.0	15	30	60	3.6k	10m		A	TO36	
105	MP507	2.0	170 Ø	♦J	60		90	45	75	4.0m	2.0	15	50	100	3.6k	10m		A	TO36	
106	MP507A	2.0	170 Ø	♦J	60		90	45	75	4.0m	2.0	15	50	100	3.6k	10m		A	TO36	
107	ST106	2.0		#J	15	4.0	60	28	50	7.0m	2.0Ø	10	9.0	22	6.0k		15u	A	TO36	
108	ST107	2.0		#J	15	4.0	80	28	50	7.0m	2.0Ø	10	9.0	22	6.0k		15u	A	TO36	
109	ST108	2.0		#J	15	4.0	60	28	50	7.0m	2.0Ø	10	19	42	5.0k		12u	A	TO36	

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX T	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CODE
1	ST109	2.0		#J	15	4.0	80	28	50	7.0m	2.0Ø	10	19	42	5.0k		12u	A	TO36	
2	ST110	2.0		#J	15	4.0	60	28	45	7.0m	2.0Ø	10	38	84	3.0k		10u	A	TO36	
3	ST111	2.0		#J	15	4.0	80	28	45	7.0m	2.0Ø	10	38	84	3.0k		10u	A	TO36	
4	ST112	2.0		#J	15	4.0	60	28	35	20m	2.0Ø	10	25		3.0k		10u	A	TO36	
5	TIG05	2.0	150 Ø	#S	50	5.0	50	30	35	300uØ	2.0Ø	30	20	80	200kŞ	23m		A	TO3	
6	TIG06	2.0	150 Ø	#S	50	5.0	75	30	45	200uØ	2.0Ø	30	20	80	200kŞ	13m		A	TO3	
7	TIG07	2.0	150 Ø	#S	50	5.0	100	30	55	200uØ	2.0Ø	30	20	80	200kŞ	13m		A	TO3	
8	TIG08	2.0	150 Ø	#S	50	5.0	50	30	35	300uØ	2.0Ø	30	20	80	200kŞ	23m		A	TO41	
9	TIG09	2.0	150 Ø	#S	50	5.0	75	30	45	200uØ	2.0Ø	30	20	80	200kŞ	13m		A	TO41	
10	TIG10	2.0	150 Ø	#S	50	5.0	100	30	55	200uØ	2.0Ø	30	20	80	200kŞ	13m		A	TO41	
11	TS609	2.0 Ø	170 Ø	♦J	15	4.0	40	20	40 Ø	8.0m	2.0Ø	5.0	20		10kŦ		15u	A	TO36	

9. GERMANIUM NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX TEMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DESCRIPTION DWG. No.	LEAD CODE
1#	2SD191	2.9mØ		ØJ	.15		30	12	25	14nØ	1.0Ø	.05	20	130				A	TO9	
2#	2SD192	2.9mØ		ØJ	.15		30	12	25	14nØ	1.0Ø	.05	40	130				A	TO9	
3#	2SD194	5.0mØ		ØJ	.40		32	12	32	14nØ	1.0Ø	.15	40	150				A	TO9	
4	2N95	80m		ØJ	1.5		30	15	15	5.0m	6.0	50m	40 Ø		400kt				X4	
5	2N102	80m		ØJ	800m		30	15	15	5.0m	6.0	50m	40 Ø		400kt				OV4	
6	2N142	80mØ		ØJ	800m		60	30	30	5.0m	12	50m	40 Ø		400kt				MM1	
7	2N144	80mØ		ØJ	800m		60	30	30	5.0m	12	50m	40 Ø		400kt					
8	2N468	200mØ	12	#J	3.0	500m	60	15	45	2.0m	2.0Ø	1.0	15	80	150kt	1.2		A		
9	LT5164	200m		#J	3.0	.50	80	15	60	3.0m	2.0Ø	1.0	15	80	150kt	1.2		A		
10	LT5165	200m		#J	3.0	.50	35	15	30	1.0m	2.0Ø	1.0	15	80	150kt	1.2		A		
11	LT5202	286m		#J	1.0		60	30	60		6.0Ø	.25	10						TO13	
12	LT5210	286m		#J	1.0		30	15	15	10m	1.0Ø	.50	10						TO13	

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AX EM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DESCRIPTION DWG. No.	LEAD CODE
1	HA7730		1.0	♦			40	20		5.0u	10	5.0mΔ	22 Ø	†	1.0M†			A	X3	
2	HA7731		1.0	♦			80	40		2.0u	10	5.0mΔ	22 Ø	†	1.0M†			A	X3	
3	HA7732		1.0	♦			40	20		5.0u	10	5.0mΔ	60 Ø	†	1.0M†			A	X3	
4	HA7733		1.0	♦			80	40		2.0u	10	5.0mΔ	60 Ø	†	1.0M†			A	X3	
5	SE9562	200n#	20 Ø	§J	2.0			5.5	80	100u§	5.0Ø	1.0	30	90 #	50M§Δ			DPE	TO66	CØ
6	SE9563	200n#	20 Ø	§J	2.0			5.5	80	100u§	5.0Ø	1.0	70	300 #	60M§Δ			DPE	TO66	CØ
7	2N1238	7.1m	1.0	§J			15	15	15	100nØ	2.0Ø	10m	14 Ø		1.2M†			A	X3	
8	2N1239	7.1m	1.0	§J			15	15	15	100nØ	2.0Ø	10m	30 Ø		1.2M†			A	X3	
9	2N1240	7.1m	1.0	§J			35	35	35	100nØ	2.0Ø	10m	14 Ø		1.2M†			A	X3	
10	2N1241	7.1m	1.0	§J			35	35	35	100nØ	2.0Ø	10m	30 Ø		1.2M†			A	X3	
11	2N1242	7.1m	1.0	§J			60	60	60	100nØ	2.0Ø	10m	14 Ø		1.0M†			A	X3	
12	2N1242A	7.1mØ	1.0				90	90		100n	5.0	1.0mΔ	20 Ø	†	1.0M†			A	X3	
13	2N1243	7.1m	1.0	§J			60	60	60	100nØ	2.0Ø	10m	30 Ø		1.0M†			A	X3	
14	2N1244	7.1m	1.0	§J			110	110	110	100nØ	2.0Ø	10m	14 Ø		800k†			A	X3	
15	HA7515	7.1mØ	1.0	§J			150	150		100n	5.0	1.0mΔ	20	†	800k†			A	X3	
16	HA7520	7.1mØ	1.0	§J	100m		35	35		100n	5.0	1.0mΔ	12 †	†	1.2M†				X3	
17	HA7521	7.1mØ	1.0	§J	100m		60	60		100n	5.0	1.0mΔ	12	†	1.2M†			A	X3	
18	HA7522	7.1mØ	1.0	§J			15	15		100n	5.0Ø	1.0mΔ	20 †	†	1.2M†			F		
19	HA7523	7.1mØ	1.0	§J			35	35		100n	5.0Ø	1.0mΔ	20 †	†	1.2M†			F		
20	HA7524	7.1mØ	1.0	§J			60	60		100n	5.0Ø	1.0mØ	20 †	†	1.0M†			F		
21	HA7525	7.1mØ	1.0	§J			110	110		100n	5.0Ø	1.0mØ	20 †	†	800k†			F		
22	HA7526	7.1mØ	1.0	§J			15	15		100n	5.0Ø	1.0mΔ	42 †	†	1.2M†			F		
23	HA7527	7.1mØ	1.0	§J			35	35		100n	5.0Ø	1.0mΔ	42 †	†	1.2M†			F		
24	HA7528	7.1mØ	1.0	§J			60	60		100n	5.0Ø	1.0mØ	42 †	†	1.0M†			F		
25	HA7529	7.1mØ	1.0	§J			90			100n			14 †					A	X3	
26	HA7723	7.1mØ	1.0	§J	50m		50	10		1.0u	6.0Ø	1.0mΔ	25 Ø		100k†			A	X3	
27	HA7725	7.1mØ	1.0	§J	50m		100	60		1.0u	6.0Ø	1.0mΔ	14 Ø		100k†			A	X3	
28	HA7734	7.1mØ	1.0	§J	50m		50	20		1.0u	6.0Ø	1.0mΔ	14 Ø	†	200k†			A	X3	
29	HA7735	7.1mØ	1.0	§J	50m		50	20		1.0u	6.0Ø	1.0mΔ	25 Ø	†	300k†			A	X3	
30	HA7736	7.1mØ	1.0	§J	50m		50	20		1.0u	6.0Ø	1.0mΔ	50 Ø	†	400k†			A	X3	
31	HA7737	7.1mØ	1.0	§J	50m		50	20		1.0u	6.0Ø	1.0mΔ	18 Ø	†	300k†			A	X3	
32	2N3408	27mØ	4.0	§S	500m		40	3.0	25	400nØ	15Ø	40m	10	100	200M§Δ				Ø MT30	
33	SE9560	200m#	20 Ø	§J	2.0			5.5	60	100u§	5.0Ø	1.0	30	90 #	50M§Δ			DPE	TO66	CØ
34	SE9561	200m#	20 Ø	§J	2.0			5.5	60	100u§	5.0Ø	1.0	70	300 #	60M§Δ			DPE	TO66	CØ
35	ST9001	200m	20		2.0		60	5.0	50	100u	10	500m	20	80	25M	3.0		ME	MT11	
36	SE9570	250m#	25 Ø	§J	2.0			5.5	60	100u§	5.0Ø	1.0	30	90 #	50M§Δ			DPE	TO3	CØ
37	SE9571	250m#	25 Ø	§J	2.0			5.5	60	100u§	5.0Ø	1.0	70	300 #	60M§Δ			DPE	TO3	CØ
38	SE9572	250m#	25 Ø	§J	2.0			5.5	80	10u§	5.0Ø	1.0	30	90 #	50M§Δ			DPE	TO3	CØ
39	SE9573	250m#	25 Ø	§J	2.0			5.5	80	10u§	5.0Ø	1.0	70	300 #	60M§Δ			DPE	TO3	CØ
40	FT400A	370m§	30 Ø	§J			80	5.0	80	100u§	5.0Ø	2.0	100	300	120M§			DPE	TO59	
41	FT400B	370m§	30 Ø	§J			80	5.0	80	100u§	5.0Ø	2.0	40	120	120M§			DPE	TO59	
42	STC5109/I	400mØ	85 Ø	§C	3.0		40	10	40		3.0Ø	1.0	20	60		300m		DΔ	MS8	
43	STC5110/I	400mØ	85 Ø	§C	3.0		60	10	60		3.0Ø	1.0	20	60		300m		DΔ	MS8	
44	STC5112/I	400mØ	85 Ø	§C	2.0		40	10	40		3.0Ø	500m	20	60		800m		DΔ	MS8	
45	STC5113/I	400mØ	85 Ø	§C	2.0		60	10	60		3.0Ø	500m	20	60		800m		DΔ	MS8	
46	STC5114/I	400mØ	85 Ø	§C	2.0		80	10	80		3.0Ø	500m	20	60		800m		DΔ	MS8	
47	STC5519/I	400mØ	85 Ø	§C	3.0		40	10	40		3.0Ø	1.0	20	60		300m		DΔ	MT10a	
48	STC5520/I	400mØ	85 Ø	§C	3.0		60	10	60		3.0Ø	1.0	20	60		300m		DΔ	MT10a	
49	STC5521/I	400mØ	85 Ø	§C	3.0		80	10	80		3.0Ø	1.0	20	60		300m		DΔ	MT10a	
50	STC5522/I	400mØ	85 Ø	§C	2.0		40	10	40		3.0Ø	500m	20	60		800m		DΔ	MT10a	
51	STC5523/I	400mØ	85 Ø	§C	2.0		60	10	60		3.0Ø	500m	20	60		800m		DΔ	MT10a	
52	STC5524/I	400mØ	85 Ø	§C	2.0		80	10	80		3.0Ø	500m	20	60		800m		DΔ	MT10a	
53	2P389	454m	85 Ø	§J	3.0			10	60	10m	15Ø	1.0	12	60	2.0k§	5.0		DΔ	MS3	
54	2P424	454m	85 Ø	§J	3.0			10	80	10m	15Ø	1.0	12	60	2.0k§	5.0		DΔ	MS3	
55	TIXP07	666m§	3.0	§C	7.5	1.0	100	8.0	80	1.0u§	5.0Ø	2.0	20 #	90	10M§Δ	250m		PE	TO53	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CONFIG.
1	2N1839A		2.8 Ø		.15	15m	45	4.5	30 §	1.5uØ		.10	12	50	90M§	10			TO5	
2#	2SC15		1.0	§J	50m		30			1.0u	5.0	10m	60 Ø	†	200M†			ME	TO9	
3#	2SC140		1.7	§J	1.0		60			12u	10	50m	30 Ø	†	200M†			ME	TO9	
4#	28T2C		2.5		100m		60	1.0		5.0u	10	5.0m	14 Ø	†	20M†					
5#	29T2C		2.5		100m		60	1.0		5.0u	10	5.0m	14 Ø	†	20M†					
6	957		1.0	§	50m		60			6.0u			30 Ø							
7	958		1.0	§	50m		60			6.0u			90 Ø							
8#	FT012		20 Ø	§S	2.0		60	6.0	40	250u	15Ø	50m	2.0	3.0 Ø	40M§Δ	6.0			TO36	Ø
9	PT3691		20 Ø		.50		70	4.0	40				40	120						
10	PT5690		70 Ø		5.0		60	4.0	40				25	100						
11	RT1420M		3.0 Ø	§J			60	5.0	30 §	1.0uØ	10Ø	150 Ø	140 Ø		250M				TO46	
12	TA6200		1.0				60	5.0		10uØ	5.0Ø	500m	80 Ø		60M§			PL		
13	XT515		2.8	§J	75m		120			1.0m	50	30m	5.0 Ø	†					D	
14	XT516		2.8	§J	75m		120			1.0m	50	30m	5.0 Ø	†					D	
15	XT517		2.8	§J	75m		120			1.0m	50	30m	5.0 Ø	†					D	
16	XT518		2.8	§J	75m		120			1.0m	50	30m	13 Ø	†					D	
17	XT519		2.8	§J	75m		120												D	
18	XT520		2.8	§J	75m		120												D	
19#	ZT2631		8.8 Ø	§J	1.5		80	4.0	60	100nØ					200M§				TO39	Ø
20	AMF201B	625u	85 Ø	§C	13			.50	80 Ø		15Ø	10	10		1.0M†	400m		ME	MD19	
21	AMF201C	625u	85 Ø	§C	13			.50	100 Ø		15Ø	10	10		1.0M†	400m		ME	MD19	
22	AMF201D	625u	85 Ø	§C	13			.50	130 Ø		15Ø	10	10		1.0M†	400m		ME	MD19	
23	AMF201E	625u	85 Ø	§C	13			.50	150 Ø		15Ø	10	10		1.0M†	400m		ME	MD19	
24	1768-0415	1.1m	200 Ø	§J	25	10	50	7.0	40 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO63	
25	1768-0420	1.1m	200 Ø	§J	25	10	50	7.0	40 Ø	20m#	4.0Ø	20	20 #		40M§Δ			EM	TO63	
26	1768-0425	1.1m	200 Ø	§J	25	10	50	7.0	40 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO63	
27	1768-0615	1.1m	200 Ø	§J	25	10	70	7.0	60 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO63	
28	1768-0625	1.1m	200 Ø	§J	25	10	70	7.0	60 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO63	
29	1768-0815	1.1m	200 Ø	§J	25	10	90	7.0	80 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO63	
30	1768-0825	1.1m	200 Ø	§J	25	10	90	7.0	80 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO63	
31	1768-1015	1.1m	200 Ø	§J	25	10	110	7.0	100 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO63	
32	1768-1025	1.1m	200 Ø	§J	25	10	110	7.0	100 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO63	
33	1768-1215	1.1m	200 Ø	§J	25	10	130	7.0	120 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO63	
34	1768-1225	1.1m	200 Ø	§J	25	10	130	7.0	120 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO63	
35	1768-1415	1.1m	200 Ø	§J	25	10	150	7.0	140 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO63	
36	1768-1425	1.1m	200 Ø	§J	25	10	150	7.0	140 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO63	
37	1776-0450	1.1m	200 Ø	§J	50	25	50	7.0	40 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO63	
38	1776-0650	1.1m	200 Ø	§J	50	25	70	7.0	60 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO63	
39	1776-0850	1.1m	200 Ø	§J	50	25	90	7.0	80 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO63	
40	1776-1050	1.1m	200 Ø	§J	50	25	110	7.0	100 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO63	
41	1776-1250	1.1m	200 Ø	§J	50	25	130	7.0	120 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO63	
42	1776-1450	1.1m	200 Ø	§J	50	25	150	7.0	140 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO63	
43	1771-0440	1.7m	300 Ø	§J	50	25	50	7.0	40 Ø	20m#	5.0Ø	40	10 #		25M§Δ			EM	TO114	
44	1771-0450	1.7m	300 Ø	§J	50	25	50	7.0	40 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO114	
45	1771-0460	1.7m	300 Ø	§J	50	25	50	7.0	40 Ø	20m#	5.0Ø	60	10 #		25M§Δ			EM	TO114	
46	1771-0640	1.7m	300 Ø	§J	50	25	70	7.0	60 Ø	20m#	5.0Ø	40	10 #		25M§Δ			EM	TO114	
47	1771-0650	1.7m	300 Ø	§J	50	25	70	7.0	60 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO114	
48	1771-0660	1.7m	300 Ø	§J	50	25	70	7.0	60 Ø	20m#	5.0Ø	60	10 #		25M§Δ			EM	TO114	
49	1771-0840	1.7m	300 Ø	§J	50	25	90	7.0	80 Ø	20m#	5.0Ø	40	10 #		25M§Δ			EM	TO114	
50	1771-0850	1.7m	300 Ø	§J	50	25	90	7.0	80 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO114	
51	1771-0860	1.7m	300 Ø	§J	50	25	90	7.0	80 Ø	20m#	5.0Ø	60	10 #		25M§Δ			EM	TO114	
52	1771-1040	1.7m	300 Ø	§J	50	25	110	7.0	100 Ø	20m#	5.0Ø	40	10 #		25M§Δ			EM	TO114	
53	1771-1050	1.7m	300 Ø	§J	50	25	110	7.0	100 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO114	
54	1771-1060	1.7m	300 Ø	§J	50	25	110	7.0	100 Ø	20m#	5.0Ø	60	10 #		25M§Δ			EM	TO114	
55	1771-1240	1.7m	300 Ø	§J	50	25	130	7.0	120 Ø	20m#	5.0Ø	40	10 #		25M§Δ			EM	TO114	
56	1771-1250	1.7m	300 Ø	§J	50	25	130	7.0	120 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO114	
57	1771-1260	1.7m	300 Ø	§J	50	25	130	7.0	120 Ø	20m#	5.0Ø	60	10 #		25M§Δ			EM	TO114	
58	1771-1440	1.7m	300 Ø	§J	50	25	150	7.0	140 Ø	20m#	5.0Ø	40	10 #		25M§Δ			EM	TO114	
59	1771-1450	1.7m	300 Ø	§J	50	25	150	7.0	140 Ø	20m#	5.0Ø	50	10 #		25M§Δ			EM	TO114	
60	1771-1460	1.7m	300 Ø	§J	50	25	150	7.0	140 Ø	20m#	5.0Ø	60	10 #		25M§Δ			EM	TO114	
61	1771-1640	1.7m	300 Ø	§J	50	25	170	7.0	160 Ø	20m#	5.0Ø	40	10 #		25M§Δ			EM	TO114	
62	2N3435	5.0m	1.0	§S	250m		80	4.0	60	50nØ	20Ø	10m	50	200	140M§Δ				TO5	Ø
63	2N4438	5.0m	1.0	§J	200m	50m	300	8.0	300	1.0uØ	10Ø	50m	40	120	30M§Δ	10			TO39	AØ
64	2N4439	5.0m	1.0	§J	200m	50m	300	8.0	300	1.0uØ	10Ø	50m	100	240	30M§Δ	10			TO39	AØ
65#	XC703	5.0m		§C	1.5	1.0	60	12	40	.01mØ	4.0Ø	.20	15	75	1.5M†	7.0	1.0u	DΔ	TO5	
66	11CF1	6.0mØ	1.2	§J	1.0		60	5.0	250mØ	10uØ	10Ø	150mØ	100	300 #	130 §	1.7	70n	PEΔ	MD14	
67	11CF2	6.0mØ	1.2	§J	1.0		60	5.0	350mØ	10uØ	10Ø	150mØ	100	300 #	130 §	1.7	70n	PEΔ	MT20	
68	11CF3	6.0mØ	1.2	§J	1.0		80	8.0	250mØ	10uØ	10Ø	150mØ	40	120 #	130 §	1.7	70n	PEΔ	MT20	
69	TRS501LC	6.0m	1.0	§J	400m		500	5.0	500	15uØ	10Ø	20m	30	65 Ø				D	TO5	
70	TRS601LC	6.0m	1.0	§J	400m		600	5.0	600	20uØ	10Ø	20m	30	65 Ø				D	TO5	
71	11CF4	6.6mØ	1.2	§J	1.0		80	8.0	350mØ	10uØ	10Ø	150 Ø	40	120 #	130 §	1.7	70n	PEΔ	MT20	
72	11CF5	6.6mØ	1.2	§J	1.0		60	5.0	250mØ	10uØ	10Ø	150 Ø	20	60 #	130 §	1.7	70n	PEΔ	MT20	
73	11CF6	6.6mØ	1.2	§J	1.0		60	5.0	350mØ	10uØ	10Ø	150 Ø	20	60 #	130 §	1.7	70n	PEΔ	MT20	
74	11CF7	6.6mØ	1.2	§J	1.0		45	5.0	250mØ	100uØ	10Ø	150 Ø	20 #		130 §	1.7	70n	PEΔ	MT20	
75	11CF8	6.6mØ	1.2	§J	1.0		45	5.0	350mØ	100uØ	10Ø	150 Ø	20 #		130 §	1.7	70n	PEΔ	MT20	
76	11CB1	6.7mØ	15	§J	1.0		60	5.0	.25 Ø	.01mØ	10Ø	150 Ø	100 #	300	.13k§	2.3	.07u	PEΔ	MD14	
77	11CB2	6.7mØ	15	§J	1.0		60	5.0	.35 Ø	.01mØ	10Ø	150 Ø	100 #	300	.13k§	2.3	.07u	PEΔ	MD14	
78	11CB3	6.7mØ	15	§J	1.0		80	8.0	.25 Ø	.01mØ	10Ø	150 Ø	40 #	120	.13k§	2.3	.07u	PEΔ	MD14	
79	11CB4	6.7mØ	15	§J	1.0		80	8.0	.35 Ø	.01mØ	10Ø	150 Ø	40 #	120	.13k§	2.3	.07u	PEΔ	MD14	
80	11CB5	6.7mØ	15	§J	1.0		60	5.0	.25 Ø	.01mØ	10Ø	150 Ø	20 #	60	.13k§	2.3	.07u	PEΔ	MD14	
81	11CB6	6.7mØ	15	§J	1.0		60	5.0	.35 Ø	.01mØ	10Ø	150 Ø	20 #	60	.13k§	2.3	.07u	PEΔ	MD14	
82	11CB7	6.7mØ	15	§J	1.0		45	5.0	.25 Ø	.10mØ	10Ø	150 Ø	20 #		.13k§	2.3	.07u	PEΔ	MD14	
83	11CB8	6.7mØ	15	§J	1.0		45	5.0	.35 Ø	.10mØ	10Ø	150 Ø	20 #		.13k§	2.3	.07u	PEΔ	MD14	
84	7C13	8.0mØ	1.0	§J			120	10	60		10Ø	200	75	200	20M†				R45	
85	7E13	8.0mØ	1.0	§J			120	10	60		10Ø	200	75	200	20M†				MT19	
86	7F13	8.0mØ	1.0	§J			120	10	60		10Ø	200	75	200	20M†				MT20	
87	D7D13	8.0m	1.0	§J			120	10	60		10Ø	200	75	200	20M†				R46	
88#	XC713	10m		§C	3.0	1.5	60	12	40	.01mØ	4.0Ø	.75	15	75	1.2M†	2.7	1.0u	D	TO8	
89#	ZT50	10mØ		§			20	6.0	20		6.0	100	20		120M§	2.7		PLE	TO8	
90#	2SC147	11mØ	1.7	§J	1.0		30			100u	10	50	24 Ø		120k§			ME	TO9	
91	ST6510	11mØ		§			20		20 §		10Ø	.15	20						TO5	
92	ST6511	11mØ		§			40		20 §		10Ø	.15	20	60					TO5	
93	ST6512	11mØ		§			40		20 §		10Ø	.15	40	120					TO5	
94	ST7200	11m	45 Ø§	§A	5.0	5.0	80	4.0	80	20mØ	15Ø	1.0	12 #		8.0M†	6.0		ME	TO61	
95	7G13	12mØ	1.5	§J			120	10	60		10Ø	200	75	200	20M†				MT20	
96	TRS3015LC	13m	2.0	§J	400m		300	5.0	300	10uØ	10Ø	20m	40	65 Ø				D	MD14	
97	TRS3016LC	13m	2.0	§J	400m		300	5.0	300	10uØ	10Ø	20m	40	65 Ø				D	TO66	
98	TRS4015LC	13m	2.0	§J	400m		400	5.0	400	10uØ	10Ø	20m	30	65 Ø				D	MD14	
99	TRS4016LC	13m	2.0	§J	400m		400	5.0	400	10uØ	10Ø	20m	30	65 Ø				D	TO66	
100	TRS5015LC	13m	2.0	§J	400m		500	5.0	500	15uØ	10Ø	20m	30	65 Ø				D	MD14	
101	TRS5016LC	13m	2.0	§J	400m		500	5.0	500	15uØ	10Ø	20m	30	65 Ø				D	TO66	
102	TRS6015LC	13m	2.0	§J	400m		600	5.0	600	20uØ	10Ø	20m	30	65 Ø				D	MD14	
103	TRS6016LC	13m	2.0	§J	400m		600	5.0	600	20uØ	10Ø	20m	30	65 Ø				D	TO66	
104#	2SC117†	14m	2.0	§J	600m		75	5.0	50	5.0uØ	15Ø	30m	10 Ø	†	60M§			D	TO8	Ø
105#	2SC118	14m	2.0	§J	600m		80	5.0		5.0uØ	15Ø	30m	10 Ø	†	70M§			PL	TO8	ØØ
106#	2SC119	14m	2.0	§J	600m		75	5.0		5.0uØ	15Ø	30m	10 Ø	†	70M§			PE	TO8	Ø
107	7B13	15mØ	2.0	§J			120	10	60		10Ø	200	75	200	20M†				MD14	
108	RT5001	16m	3.0 Ø	§J			60	5.0		1.0uØ	10Ø	300m	40 Ø	#				ME	TO5	
109	RT5002	16m	3.0 Ø	§J			60	5.0		1.0uØ	10Ø	300m	80 Ø	#				PL	TO5	
110	RT5003	16m	3.0 Ø	§J			100	5.0		1.0u	10Ø	300m	40 Ø	#				ME	TO5	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1	RT5004	16m	3.0 Ø	§J			100	5.0		1.0u	10Ø	300m	80 Ø	#				ME	TO5	
2	11C1F1	17m$	1.2	§J	1.0		60	5.0	40	10nØ	10Ø	150m	100	300	50k§Δ	2.3	70n	PE	MT20	
3	11C3F1	17m$	1.2	§J	1.0		80	8.0	50	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MT20	
4	11C5F1	17m$	1.2	§J	1.0		60	5.0	40	10nØ	10Ø	150m	20	60	50k§Δ	2.3	70n	PE	MT20	
5	11C10F1	17m$	1.2	§J	1.0		120	7.0	80	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MT20	
6	11C11F1	17m$	1.2	§J	1.0		60	5.0	40	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MT20	
7	D11C7F1	17m$	1.2	§J	1.0		45	5.0	25	10nØ	10Ø	150m	20		50k§Δ	2.3	70n	PE	MT20	
8	D11C1F1	18m	1.1	§A				5.0	40	15u	10Ø	150m	100	300	130k§	1.7		PE	MT62	
9	D11C3F1	18m	1.1	§A				8.0	50	25u	10Ø	150m	40	120	130k§	1.7		PE	MT62	
10	D11C5F1	18m	1.1	§A				5.0	40	25u	10Ø	150m	20		130k§	1.7		PE	MT62	
11	D11C10F1	18m	1.1	§A				7.0	80 §	15u	10Ø	150m	40	120	130k§	1.7		PE	MT62	
12	D11C11F1	18m	1.1	§A				5.0	40 §	15u	10Ø	150m	40	120	130k§	1.7		PE	MT62	
13	2N4133	20m	3.0 Ø	§J	600m	100m	90	5.0	80	10uØ	5.0Ø	200m	10	80 #	200M§Δ				TO5	AØ
14	3TE260	20m	3.0 Ø	§J	600m		80	4.0	80	10uØ	5.0Ø	500m	10	60 #				DPE	TO5	
15	MHT4401	22m	4.0 Ø	§J	500m		60	5.0	60	1.0uØ	4.0Ø	150m	20	120 #	80M	2.0		EΔ	TO5	
16	MHT4402	22m	4.0 Ø	§J	500m		120	5.0	100	2.0uØ	4.0Ø	150m	20	120 #	80M	4.0		EΔ	TO5	
17	MHT4411	22m	4.0 Ø	§J	500m		60	5.0	40	1.0uØ	4.0Ø	150m	20	60	80M	2.0		E	TO5	
18	MHT4412	22m	4.0 Ø	§J	500m		60	5.0	40	1.0uØ	4.0Ø	150m	40	120	80M	2.0		E	TO5	
19	MHT4413	22m	4.0 Ø	§J	500m		60	5.0	40	1.0uØ	4.0Ø	150m	100		80M	2.0		E	TO5	
20	MHT4414	22m	4.0 Ø	§J	500m		80	5.0	60	1.0uØ	4.0Ø	150m	20	60	80M	3.0		E	TO5	
21	MHT4415	22m	4.0 Ø	§J	500m		80	5.0	60	1.0uØ	4.0Ø	150m	40	120	80M	3.0		E	TO5	
22	MHT4416	22m	4.0 Ø	§J	500m		80	5.0	60	1.0uØ	4.0Ø	150m	100		80M	3.0		E	TO5	
23	MHT4417	22m	4.0 Ø	§J	500m		120	5.0	80	2.0uØ	4.0Ø	150m	20	60	80M	4.0		E	TO5	
24	MHT4418	22m	4.0 Ø	§J	500m		120	5.0	80	2.0uØ	4.0Ø	150m	40	120	80M	4.0		E	TO5	
25	MHT4419	22m	4.0 Ø	§J	500m		120	5.0	80	2.0uØ	4.0Ø	150m	100		80M	4.0		E	TO5	
26	3TE160	23m	3.0	§J	600m		90	5.0	80	10uØ	5.0Ø	500m	10	80	200M§	1.0		PE	TO5	
27	2N3152	25m$	2.5 Ø	§S	100m		120	4.0	120	50u†Ø	20Ø	30m	40		200k§Δ				MT30	
28	TRS1004LP	26m	1.0	§J	400m	50m	100	3.0	100 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
29	TRS1204LP	26m	1.0	§J	400m	50m	120	3.0	120 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
30	TRS1404LP	26m	1.0	§J	400m	50m	140	3.0	140 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
31	TRS1604LP	26m	1.0	§J	400m	50m	160	3.0	160 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
32	TRS1804LP	26m	1.0	§J	400m	50m	180	3.0	180 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
33	TRS2004LP	26m	1.0	§J	400m	50m	200	3.0	200 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
34	TRS2254LP	26m	1.0	§J	400m	50m	225	3.0	225 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
35	TRS2504LP	26m	1.0	§J	400m	50m	250	3.0	250 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
36	TRS2754LP	26m	1.0	§J	400m	50m	275	3.0	275 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
37	TRS3014LP	26m	1.0	§J	400m	50m	300	3.0	300 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
38	TRS3504LP	26m	1.0	§J	400m	50m	350	3.0	350	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
39	TRS3754LP	26m	1.0	§J	400m	50m	375	3.0	375	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
40	TRS4014LP	26m	1.0	§J	400m	50m	400	3.0	400	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
41	TRS4254LP	26m	1.0	§J	400m	50m	425	3.0	425	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
42	TRS4504LP	26m	1.0	§J	400m	50m	450	3.0	450	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
43	TRS4754LP	26m	1.0	§J	400m	50m	475	3.0	475	10uØ	4.0Ø	25m	30 Ø		50k§	80			TO5	
44	2N3309A	28m	5.0 Ø	§C	500m	100m	60	4.0	60 Ø	500nØ	2.0Ø	75m	5.0	100	300M§				TO39	Ø
45	2N3374	28m	5.0 Ø	§J	500m	200m	80	4.0	80	50nØ	28Ø	170m	10 #		230M§Δ	2.0			TO5	AØ
46	2N3664	28m	5.0 Ø	§C	500m	100m	60	4.0	60 Ø	50n§	2.0Ø	50m	8.0	80	300M§Δ	3.0			MT30	N
47	11C1B1	28m$	1.5	§J	1.0		60	5.0	40	10nØ	10Ø	150m	100	300	50k§Δ	2.3	70n	PE	MD14	
48	11C3B1	28m$	1.5	§J	1.0		80	8.0	50	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MD14	
49	11C5B1	28m$	1.5	§J	1.0		60	5.0	40	10nØ	10Ø	150m	20	60	50k§Δ	2.3	70n	PE	MD14	
50	11C10B1	28m$	1.5	§J	1.0		120	7.0	80	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MD14	
51	11C11B1	28m$	1.5	§J	1.0		60	5.0	40	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MD14	
52	A213	28m	1.2	§J	150m		40	2.0	30		5.0	150m	25 #		1.0G§			PE	MT59	R
53	D11C1B1	28m	1.5	§A				5.0	40	15u	10Ø	150m	100	300	130k§	1.7		PE	MD14	
54	D11C3B1	28m	1.5	§A				8.0	50	25u	10Ø	150m	40	120	130k§	1.7		PE	MD14	
55	D11C5B1	28m	1.5	§A				5.0	40	25u	10Ø	150m	20		130k§	1.7		PE	MD14	
56	D11C7B1	28m$	1.5	§J	1.0		45	5.0	25	10nØ	10Ø	150m	20		50k§Δ	2.3	70n	PE	MD14	
57	D11C10B1	28m	1.5	§A				7.0	80 §	15u	10Ø	150m	40	120	130k§	1.7		PE	MD14	
58	D11C11B1	28m	1.5	§A				5.0	40 §	15u	10Ø	150m	40	120	130k§	1.7		PE	MD14	
59	D11C201B20	28m	1.0	§A				5.0	40	15u	10Ø	150m	100	300	130k§	1.7		PE	MD30	
60	D11C203B20	28m	1.0	§A				8.0	50	25u	10Ø	150m	40	120	130k§	1.7		PE	MD30	
61	D11C205B20	28m	1.0	§A				5.0	40	25u	10Ø	150m	20	60	130k§	1.7		PE	MD30	
62	D11C207B20	28m$	1.0	§J	1.0		45	5.0	25	10nØ	10Ø	150m	20		50k§Δ	2.3	70n	PE	MD20	
63	D11C210B20	28m$	1.0	§A				7.0	80 §	15u	10Ø	150m	40	120	130k§	1.6		PE	MD30	
64	D11C211B20	28m$	1.0	§A				5.0	40 §	15u	10Ø	150m	40	120	130k§	1.6		PE	MD30	
65	NS949†	28m	1.0	§A	1.0		60	5.0	45 *	100nØ	2.0Ø	150m	40	150 #	200M§Δ	2.3	60nØ	E	TO46	A
66	NS950†	28m	1.0	§A	1.0		75	5.0	60 *	100nØ	2.0Ø	150m	40	150 #	200M§Δ	2.3	60nØ	E	TO46	A
67	PT3501	28m	5.0 Ø	§J	750m		40	3.0	25	100uØ	15Ø	500mØ	15	100 #				PL	TO39	
68	2N2149	29mØ					100		10		10	.03	40	120	.08k†			D		
69	2N3053/4053	29m	5.0 Ø	§S	700m		60	5.0	50 §	250n	10Ø	150m	50	250	100M§Δ			PLD	TO5	
70	11C201B20	29m$	1.0	§J	1.0		60	5.0	40	10nØ	10Ø	150m	100	300	50k§Δ	2.3	70n	PE	MD20	
71	11C203B20	29m$	1.0	§J	1.0		80	8.0	50	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MD20	
72	11C205B20	29m$	1.0	§J	1.0		60	5.0	40	10nØ	10Ø	150m	20	60	50k§Δ	2.3	70n	PE	MD20	
73	11C210B20	29m$	1.0	§J	1.0		120	7.0	80	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MD20	
74	11C211B20	29m$	1.0	§J	1.0		60	5.0	40	10nØ	10Ø	150m	40	120	50k§Δ	2.3	70n	PE	MD20	
75#	2SC514	32m	4.0 Ø	§J	100m		300	3.0	300	100u	10Ø	50mΔ	60 †		20M§			ME	MD25	
76	2N625	33mØ		§J	.80		40	20	30	.10m	2.0	.05	30				.50u	D		
77	7A35	40m	1.0	§J			60	15	40 §	10uØ	10Ø	200	50	200	15M†			ME	TO5	
78	40423	40m#	3.8 Ø	§A	150m	150m	300	2.0		100u	10Ø	50m	50	250	25M§				MD31	AØ
79	40425	40m#	3.8 Ø	§A	150m	150m	300	2.0	300 #	100u	10Ø	50m	30	150	25M§				MD31	AØ
80	40427	40m#	3.8 Ø	§A	150m	150m	300	2.0		100u	10Ø	50m	20	100	25M§				MD31	AØ
81	A200	40m	7.0	§J	500m		36	4.0	18	100uΔ					550M§			PE	TO39	Ø
82	D7F1	40m	1.0	§J			80	10	60	50u	10Ø	200m	12	36 #	20M†	8.5		DM	MT20	
83	D7F2	40m	1.0	§J			80	10	60	50u	10Ø	200m	30	90 #	20M†	8.5		DM	MT20	
84	D7F3	40m	1.0	§J			120	10	100	50u	10Ø	200m	12	36 #	20M†	8.5		DM	MT20	
85	D7F4	40m	1.0	§J			120	10	100	50u	10Ø	200m	30	90 #	20M†	8.5		DM	MT20	
86	ST5060	40mØ		#			50	1.0	40		10Ø	5.0m	9.0	36					TO11	
87	ST5061	40mØ		#			80		70		10Ø	5.0m	9.0	36 †					TO11	
88#	XB401	40m	7.0		1.0	400m	65	4.0	40		5.0	250m	10	100	400M§	1.0		PE	TO39	
89	2N3717	43m	7.5 Ø	§C	1.0	200m	60	4.0	60 Ø	10u§	2.0Ø	500m	2.0	100 #	250M				TO39	Ø
90#	3TE450	43m	7.5 Ø	§J	500m	200m	80	4.0	80	100uØ	5.0Ø	500m	10 #	80 #	350M§Δ	1.0		PE	MT62	
91	NS9400	43m	7.5 Ø	§S	1.0		60	4.0	60 Ø	1.0uØ	10Ø	25mØ	30	60 Ø	330M§	1.2		PE	TO5	AØ
92	2N2473	45m	7.0 Ø	§C	1.0	500m	120	10	100	50u	10Ø	200m	30	90	10M§Δ	8.5			R46	
93	4JD7A35	45m	1.0	§J			60	15	40 §	10uØ	10Ø	200m	50	200 #	15M			DMΔ	R133b	Ø
94#	2SD122	48mØ	7.0		3.0	1.5	60	12	40	.01mØ	4.0	.75	15	100	600k†		2.6u	ME	TO8	
95#	2SD123	48mØ	7.0		3.0	1.5	100	12	55	.01mØ	4.0	.75	15	100	600k†		2.6u	ME	TO8	
96	2N2033/S	50m	8.5 Ø	§J	3.0		80	10	60		4.0Ø	500m	20	60	1.0M§	800m	1.0uØ	D	MT13	
97	2N2034/S	50m	8.5 Ø	§J	3.0		80	10	60		4.0Ø	1.0	20	60	1.0M§Δ	300m	1.0uØ	D	MT13	
98	2N2485	50m	8.7 Ø	§A	2.0	1.0	120	2.0	120	1.0m	10Ø	500m	10		800M			ME	TO5	
99	2N2486	50m	8.7 Ø	§A	2.0	1.0	140	2.0	140	1.0m	10Ø	500m	10		800M			ME	TO5	
100	2N2649	50m	8.7 Ø	§A	2.0	1.0	65	1.0	65	1.0m	10Ø	500m	10		800M			ME	TO5	
101	2N2650	50m	8.7 Ø	§A	2.0	1.0	140	2.0	140	1.0m	10Ø	500m	10		800M			ME	TO5	
102	2N3928†	50m	5.0 Ø	§J	3.0	500m	80	4.0	40	1.0m#	5.0Ø	1.0	40	150 #	200M§Δ	3.3	30n		R114	Ø
103	3TE250	50m	7.5 Ø	§J	600m		80	4.0	80	10uØ	5.0Ø	500m	10	60 #				DPE	TO37	
104	B3458	50m	7.5 Ø		5.0		100	6.0	60	.02mØ	10Ø	5.0	30		200M§Δ	.33		PE	TO5	
105	NS9500	50m	8.7				65	3.0	65										TO5	
106	SN118	50m	8.7 Ø	§A	2.0	1.0	60	3.0	60	100uØ	10	500m	7.0		800M			ME	TO5	
107	SN500	50m	8.7 Ø				65	3.0	65										MT31	
108	ST4402	50m	5.0 Ø§	§J			150	5.0	150	100nØ	10Ø	600m	40						MD28a	
109	TN71†	50m$	500m	§J	5.0		60	5.0	30	100u	5.0	1.0	20	60	40k§	500m		PE	TO5	
110	TN72†	50m$	500m	§J	5.0		60	5.0	30	100u	5.0	1.0	40	120	50k§	500m		PE	TO5	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX TEMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIGURATION
1	V600	50m	8.8 Ø	§J	1.5		80	4.0	60	100nØ					2.0M§	670m		PE	TO5	A
2	V601	50m	8.8 Ø	§J	1.5		80	4.0	60	10uØ					2.0M§	670m		PE	TO5	A
3	V602	50m	8.8 Ø	§J	1.5		50	4.0	40	10uØ					2.0M§	670m		PE	TO5	A
4	TA2084	55m†	5.0 Ø	§A	1.0	50m	140	1.0	140									ME	TO5	
5	2N3718	57m	10 Ø	§J	1.0	20	60	4.0	60 Ø	10u§	2.0Ø	500m	2.0	100 #	250M				MT30	
6#	2SC699	57m	10 Ø	§J	1.0		50	4.0	50 §	50uØ	12Ø	100m	15	30 Ø	100M§			PL	MD32	
7	MHT4501	57m	10 Ø	§J	600m		60	5.0	40 §	1.0uØ	4.0Ø	150m	20	120 #	80M	2.0		EΔ	MT9	
8	MHT4502	57m	10 Ø	§J	600m		120	5.0	70 §	2.0uØ	4.0Ø	150m	20	120 #	80M	4.0		EΔ	MT9	
9	MHT4511	57m	10 Ø	§J	600m		60	5.0	40	1.0uØ	4.0Ø	150m	20	60	80M	2.0		E	MT9	
10	MHT4512	57m	10 Ø	§J	600m		60	5.0	40	1.0uØ	4.0Ø	150m	40	120	80M	2.0		E	MT9	
11	MHT4513	57m	10 Ø	§J	600m		60	5.0	40	1.0uØ	4.0Ø	150m	100		80M	2.0		E	MT9	
12	MHT4514	57m	10 Ø	§J	600m		80	5.0	60	1.0uØ	4.0Ø	150m	20	60	80M	3.0		E	MT9	
13	MHT4515	57m	10 Ø	§J	600m		80	5.0	60	1.0uØ	4.0Ø	150m	40	120	80M	3.0		E	MT9	
14	MHT4516	57m	10 Ø	§J	600m		80	5.0	60	1.0uØ	4.0Ø	150m	100		80M	3.0		E	MT9	
15	MHT4517	57m	10 Ø	§J	600m		120	5.0	80	2.0uØ	4.0Ø	150m	20	60	80M	4.0		E	MT9	
16	MHT4518	57m	10 Ø	§J	600m		120	5.0	80	2.0uØ	4.0Ø	150m	40	120	80M	4.0		E	MT9	
17	MHT4519	57m	10 Ø	§J	600m		120	5.0	80	2.0uØ	4.0Ø	150m	100		80M	4.0		E	MT9	
18	3TE150	58m	7.5	§J	600m		90	5.0	80	10uØ	5.0Ø	500m	10	80	200M§	1.0		PE	TO37	
19	2N2472	66m	10 Ø	§C	1.0	500m	120	10	100	50u	10Ø	200m	30	90	10M§Δ	8.5			MD14	
20	2N2655	66m	15 Ø	§S	500m	250m	100	8.0	100	100u	8.0Ø	200m	30	90 #	4.0M	10			TO5	
21	2N2849-1†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	100	300 #	30k§Δ	400m	125nØ	PE	TO5	Ø
22	2N2849-2†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	100	300 #	30k§Δ	400m	125nØ	PE	MT26	Ø
23	2N2849-3†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	100	300 #	30k§Δ	400m	125nØ	PE	MT32	Ø
24	2N2850-2†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	40	120 #	30k§Δ	250m	125nØ	PE	MT26	Ø
25	2N2850-3†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	40	120 #	30k§Δ	250m	125nØ	PE	MT32	Ø
26	2N2851-2†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	40	120 #	30k§Δ	400m	125nØ	PE	MT26	Ø
27	2N2851-3†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	40	120 #	30k§Δ	400m	125nØ	PE	MT32	Ø
28	2N2852-2†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	20	60 #	30k§Δ	400m	125nØ	PE	MT26	Ø
29	2N2852-3†	66m§	850m	§S	3.0		100	5.0	80		1.0Ø	1.0	20	60 #	30k§Δ	400m	125nØ	PE	MT32	Ø
30	2N2853-2†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	40 #		30k§Δ	300m	125nØ	PE	MT26	Ø
31	2N2853-3†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	40 #		30k§Δ	300m	125nØ	PE	MT32	Ø
32	2N2854-1†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	100	300 #	30k§Δ	400m	125nØ	PE	TO5	
33	2N2854-2†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	100	300 #	30k§Δ	400m	125nØ	PE	MT26	Ø
34	2N2854-3†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	100	300 #	30k§Δ	400m	125nØ	PE	MT32	Ø
35	2N2855-2†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	40	120 #	30k§Δ	400m	125nØ	PE	MT26	Ø
36	2N2855-3†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	40	120 #	30k§Δ	400m	125nØ	PE	MT32	Ø
37	2N2856-2†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	20	60 #	30k§Δ	400m	125nØ	PE	MT26	Ø
38	2N2856-3†	66m§	850m	§S	3.0		60	5.0	40		1.0Ø	1.0	20	60 #	30k§Δ	400m	125nØ	PE	MT32	Ø
39	2N3595	66m	1.5	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	30	90 #	15M§Δ				MT20a	Ø
40	2N3596	66m	1.5	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	75	150 #	15M§Δ				MT20a	Ø
41	40255	66m#	10 Ø	§J	1.0	500m	450	7.0	350	500u#	10Ø	20m	40	160	20M§Δ	10		DΔ	MD25	Ø
42	40256	66m#	10 Ø	§J	1.0	500m	300	7.0	250	500u#	10Ø	20m	40	160	20M§Δ	10		DΔ	MD25	Ø
43	A515	66mØ§	6.0	§J	150m	30m	220	5.0			20Ø	50m	20	35 Ø	65M§				TO39	
44	B3629	66m	10 Ø§	§C	5.0		80	8.0	60	100uØ		1.0 Ø	40	120	20M§Δ	500m		PE	MT27	
45	B3630	66m	10 Ø§	§C	5.0		100	8.0	80	100uØ		1.0 Ø	40	120	20M§Δ	500m		PE	MT27	
46#	BLY57	66m	11	§J	1.0		36	4.0	18		5.0Ø	500m	5.0	150	250M§			PE	TO60	A
47	BR100A§	66m	5.0 Ø	§J	5.0	1.0	60	3.0	40	1.0mØ	5.0Ø	3.0	40	200 #	300M§				R50	AØ
48	BR101A§	66m	5.0 Ø	§J	5.0	1.0	90	3.0	75	1.0mØ	5.0Ø	3.0	30	150 #	300M§				R50	AØ
49	D7B1	66m	2.0	§J			80	10	60	50u	10Ø	200m	12	36 #	20M†	8.5		DM	MD14	
50	D7B2	66m	2.0	§J			80	10	60	50u	10Ø	200m	30	90 #	20M†	8.5		DM	MD14	
51	D7C1	66m	2.0	§J			80	10	60	50u	10Ø	200m	12	36 #	20M†	8.5		DM	R45	
52	D7C2	66m	2.0	§J			80	10	60	50u	10Ø	200m	30	90 #	20M†	8.5		DM	R45	
53	D7C3	66m	2.0	§J			120	10	100	50u	10Ø	200m	12	36 #	20M†	8.5		DM	R45	
54	D7D1	66m	2.0	§J			80	10	60	50u	10Ø	200m	12	36 #	20M†	8.5		DM	R46	
55	D7D2	66m	2.0	§J			80	10	60	50u	10Ø	200m	30	90 #	20M†	8.5		DM	R46	
56	D7D3	66m	1.0	§J			120	10	100	50u	10Ø	200m	12	36 #	20M†	8.5		DM	R46	
57	D7E1	66m	1.0	§J			80	10	60	50u	10Ø	200m	12	36 #	20M†	8.5		DM	MT19	
58	D7E2	66m	1.0	§J			80	10	60	50u	10Ø	200m	30	90 #	20M†	8.5		DM	MT19	
59	D7E3	66m	1.0	§J			120	10	100	50u	10Ø	200m	12	36 #	20M†	8.5		DM	MT19	
60	D7G1	66m	1.5	§J			80	10	60	50u	10Ø	200m	12	36	20M†	8.5		ME	MT20a	
61	D7G2	66m	1.5	§J			80	10	60	50u	10Ø	200m	30	90	20M†	8.5		ME	MT20a	
62	D7G3	66m	1.5	§J			120	10	100	50u	10Ø	200m	12	36	20M†	8.5		ME	MT20a	
63	MM2264	66m	1.1	§J	1.5				25	500nØ	1.0Ø	150m	70		50M§Δ			EA	TO5	AØ
64	TN51†	66m	5.0 Ø	§J	5.0		60	5.0	30	100u	5.0	1.0	20	60	40k§	500m		PE	MT26	
65	TN52†	66m	5.0 Ø	§J	5.0		60	5.0	30	100u	5.0	1.0	40	120	50k§	500m		PE	MT26	
66	TRS1005LP	66m	2.0	§J	400m	50m	100	3.0	100 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
67	TRS1205LP	66m	2.0	§J	400m	50m	120	3.0	120 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
68	TRS1405LP	66m	2.0	§J	400m	50m	140	3.0	140 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
69	TRS1605LP	66m	2.0	§J	400m	50m	160	3.0	160 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
70	TRS1805LP	66m	2.0	§J	400m	50m	180	3.0	180 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
71	TRS2005LP	66m	2.0	§J	400m	50m	200	3.0	200 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
72	TRS2255LP	66m	2.0	§J	400m	50m	225	3.0	225 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
73	TRS2505LP	66m	2.0	§J	400m	50m	250	3.0	250 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
74	TRS2755LP	66m	2.0	§J	400m	50m	275	3.0	275 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
75	TRS3015LP	66m	2.0	§J	400m	50m	300	3.0	300 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
76	TRS3255LP	66m	2.0	§J	400m	50m	325	3.0	325 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
77	TRS3505LP	66m	2.0	§J	400m	50m	350	3.0	350 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
78	TRS3755LP	66m	2.0	§J	400m	50m	375	3.0	375 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
79	TRS4015LP	66m	2.0	§J	400m	50m	400	3.0	400 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
80	TRS4255LP	66m	2.0	§J	400m	50m	425	3.0	425 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
81	TRS4505LP	66m	2.0	§J	400m	50m	450	3.0	450 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
82	TRS4755LP	66m	2.0	§J	400m	50m	475	3.0	475 §	10uØ	4.0Ø	25m	30 Ø		50k§	80			MD14	
83	NS9608§	68m	12 Ø	§A			50	3.0	45	15uØ	5.0Ø	500m	50	150	500M§			PE	TO60	
84#	BLY16	74m	11 Ø	§J	1.5		64	3.0	64	10uØ	10	1.0	10		250M§			PE	MD23a	
85#	BDY15	77m	12 Ø	§J	2.5		36	5.0		100nØ	2.0Ø	500m	50 *	600 *	100k§			PE	MD6b	Ø
86#	BDY16	77m	12 Ø	§J	2.5		64	5.0		100nØ	2.0Ø	500m	50 *	300 *	100k§			PE	MD6b	Ø
87#	BLY86	80m	10 Ø†	§J	400m		300	8.0	300		10Ø	100m	35	100 Ø	60M§			PL	TO66	A
88	NS9420	83m	15 Ø	§S	1.0		60	4.0	60 Ø	1.0 Ø	10Ø	25mØ	30	60 Ø	330M§	1.2		PE	MT31	A
89	2N2306	86m	13 Ø	§A	2.0	500m	75	5.0	50	1.0m	2.5Ø	1.0	10	75				Δ	T08	
90	2N4262	86m	1.5 Ø	§S	200m		25	4.5	10	100n#	1.0Ø	300m	75		600M§Δ	15			TO102	
91	2N4263	86m	1.5 Ø	§S	200m		25	4.5	10	100n#	1.0Ø	300m	75		800M§Δ	15			TO102	
92	2N1072	100m	13 Ø	§J	2.0 Ø			6.0	75 Ø	100nØ	5.0Ø	750m	20	38 Ø	70M§	2.7	80nØ	DΔ	T083	
93	2N1841	100m	13 Ø	§J	2.0 Ø			6.0	50		10Ø	500mΔ	30	100 †	78M§	1.0		E	TO38	
94#	2N2234	100m	10 Ø	§A	500m	100m	40	6.0	20	1.0m	2.0Ø	100m	15	35 Ø	90m		18n	PEØ	TO3	
95#	2N2235	100m	10 Ø	§A	500m	100m	40	6.0	20	1.0m	2.0Ø	100m	40	65 Ø	140m		19n	PEØ	TO3	
96	40422	100m§	8.0 Ø	§A	150m	150m	300	2.0		100u	10Ø	50m	50	250	25M§				TO66	AØ
97	40424	100m§	8.0 Ø	§A	150m	150m	300	2.0	300 #	100u	10Ø	50m	30	150	25M§				TO66	AØ
98	40426	100m§	8.0 Ø	§A	150m	150m	300	2.0		100u	10Ø	50m	20	100	25M§				TO66	AØ
99	40546	100m	8.0 Ø	§J	150m	150m		2.0	250 #	100u	10Ø	50m	50	150	25M§			D	TO66	CØ
100	40547	100m	8.0 Ø	§J	150m	150m		2.0	250 #	100u	10Ø	50m	20	250	25M§			D	TO66	CØ
101#	BLY10†	100m	3.0	§A	500m	150m	40	6.0	20	1.0uØ	1.6Ø	100m	8.0		100M§	16	120nØ	PLØ	TO3	Ø
102#	BLY11†	100m	3.0	§A	500m	150m	40	6.0	20	1.0uØ	2.5Ø	100m	40 Ø		150M§	12	120n	PLØ	TO3	Ø
103#	BLY15	100m	15 Ø	§J	2.5	500m	90	3.0	64	100uØ	10Ø	500m	20						TO3	
104	MSP65A	100mØ	4.0	§A	2.0	500m	650	5.0	650 §	15u	10Ø	100m	25		30M	15		DM	MD14	
105	MSP75A	100mØ	4.0	§S	2.0	500m	750	5.0	750 §	15u	10Ø	100m	25		30m	15		DM	MD14	
106	V610	100mØ	18 Ø	§J	2.5		80	4.0	60	100nØ					200MØ			PE	MT31	
107	V611	100mØ	18 Ø	§J	2.5		80	4.0	60	10uØ					200MØ			PE	MT31	
108	V612	100mØ	18 Ø	§J	2.5		80	4.0	40	10uØ					200MØ			PE	MT31	
109	X30A	100m		$	.20	.03	40	1.0			20	.10	6.0		3.0M†	200		G		
110	X31A	100m		$	.16	.03	80	1.0			60	.10	6.0		3.0M†	200		G		

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X	T E M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	X32	100m				.14	.03	25	1.0			60	.10	3.0		3.0M†	200		G			
2	X32A	100m		$		.14	.03	25	1.0			60	.10	6.0		3.0M†	200		G			
3	DPT2600	114m	20	§J				100	5.0	80 §		40Ø	.30	10								
4#	MTM360	114m	20 Ø	§J		1.2		70	4.0		100uØ	12Ø	100m	20	40 Ø				PE	MT59b	R	
5	PT2622	114m	1.0	§J		1.0	400m	100	4.0	100 §	100m§	40Ø	300m	20	100 #					MT40		
6	PT2690	114m	1.0	§J		1.0		70	4.0	40	100u§	12Ø	100m	20	65 #					MT40		
7	PT3690	114m	20 Ø	§J		1.2	500m	70	4.0	40	100u§	12Ø	100m	20	65 #	400M	1.0		PL			
8	2N2340	125m	3.0	§J		1.0	200m	50	4.0	40	500u	6.0	750m	10	40	900k	4.7	150n	AΔ	TO37		
9	2N2341	125m	3.0	§J		1.0	200m	50	4.0	40	500u	6.0	750m	40	100	550k	4.7	300n	AΔ	TO37		
10	2N2342	125m	3.0	§J		1.0	200m	100	4.0	60	500u	6.0	750m	10	40	900k	3.3	150n	AΔ	TO37		
11	2N2343	125m	3.0	§J		1.0	200m	100	4.0	60	500u	6.0	750m	40	100	550k	3.3	300n	AD	TO37		
12	SN166	125m	20 Ø					60	3.0	60										MT24		
13	SN167	125m	20 Ø					65	1.0	65						130MØ				MT24		
14	SN171	125m	20 Ø					140	2.0	140						200MØ				MT24		
15	SN172	125m	20 Ø					120	2.0	120						100MØ				MT24		
16	SN173	125m	20 Ø					140	2.0	140						130MØ				MT24		
17	SN230	125m	18 Ø	§A		4.0	2.0	65	1.0	65	100uØ	10	1.0	10	50 Ø	800M			ME	TO8		
18	SN231	125m	18 Ø	§A		4.0	2.0	140	1.0	140	100uØ	10	1.0	10	50 Ø	800M			ME	TO8		
19	SN232	125m	18 Ø	§A		4.0	2.0	65	1.0	65	100uØ	10	1.0	10	50 Ø	800M			ME	TO8		
20	SN234	125m	18 Ø	§A		4.0	2.0	140	1.0	140	100uØ	10	1.0	10	50 Ø	800M			ME	TO8		
21	X30	125m				.20	.03	40	1.0			20	.10	3.0		3.0M†	200		G			
22	X31	125m				.16	.03	80	1.0			60	.10	3.0		3.0M†	200		G			
23	40342	131m	23 Ø	§J		3.0		65	4.0	40		5.0Ø	300m	10			2.0		PE	TO60		
24	40343	131m	23 Ø	§J		3.0		65	4.0	40		5.0Ø	300m	10			2.0		PE	TO60		
25	TIP14†	133m	2.0	$C		4.0	2.0	80	7.0	60	50u§	5.0Ø	200m	30	150	40M§Δ		150nØ	PE	X43		
26#	XB404	133m	23			3.0	1.0	65	4.0	40		5.0Ø	250m	10	150	300M§Δ	2.0		PE	TO60		
27#	XB413	133m	23			3.0	1.0	45	4.0	25	10m	1.0	3.0	5.0		400M§Δ				MT59		
28	A572	140m	21			2.0	1.0	70	6.0	45		6.0	500m	35						TO3		
29#	2SD124	141mØ	21			6.0	3.0	60	10	40	.02mØ	4.0	1.5	10	75	500k†		1.3u	ME	TO3		
30#	2SD125	141mØ	21			6.0	3.0	100	10	55	.02mØ	4.0	1.5	10	75	500k†		1.3u	ME	TO3		
31	970	141mØ		$S		.14		120			.10m					100k†	200		G			
32	JAN2N2525	142m	3.0 #	§A		1.0		100	5.0	100 Ø	4.0uØ	45Ø	350m	10	40 #	455M§Δ	800m		PL	MT16a		
33	NS9609§	142m	25 Ø	§A				50	3.0	45	150uØ	5.0Ø	500m	40	120	500M§	1.2		PE	TO61		
34	PT2634	142m	25 Ø	§J		1.2	400m	100	4.0	80		28Ø	350m	15 #		420M§Δ	1.2					
35	V800	142m	25 Ø	§S				140	1.0	140	750u	10Ø	1.0	10		100M§Δ			PL			
36#	3TE440	143m	25 Ø	§J		1.5		80	4.0	80	100uØ	5.0Ø	500m	10 #	60 #	350M§Δ	800m		PL	MT62		
37	MA4990	143m		§A		1.2	.40	70	5.0	60	.10mØ	28Ø	.35	15	80		.40		PE	MT39		
38	NS9540	143m	20					65	3.0	65										TO60		
39#	BUY16†	149m§	15 Ø	§J		10		150	6.0	80	10u§	2.0Ø	2.0	40	120 #	100M§	120m	500nØØ	DPE	TO59		AØ
40#	BUY17†	149m§	15 Ø	§J		10		120	6.0	60	10u§	2.0Ø	2.0	100	300 #	100M§	120m	500nØØ	DPE	TO59		AØ
41	FT34A†	151m§	15 §	§J		10		150	6.0	80	10u§	2.0Ø	2.0 Ø	40	120 #	80M§Δ	120m	500nØØ	DPE	TO59		
42	FT34B†	151m§	15 §	§J		10		120	6.0	60	10u§	2.0Ø	2.0 Ø	100	300 #	80M§Δ	120m	500nØØ	DPE	TO59		
43	TIP24	153m	2.0	$C		2.0	500m	70	9.0	70 §	250u§†	5.0Ø	1.5	19	136 *	10M§Δ	1.0		PE	X43		
44	2N1978	169m§	17 §	§J				60	5.0	40 §	10u§	5.0Ø	500m	20		60M§	1.5		PL	MT8		
45#	BLY29†	171m	30 Ø	§J		3.0		100	5.0	80	100n#	2.0Ø	1.0	30	90 #	46M§		300nØØ	DPE	TO59		
46#	BLY30†	171m	30 Ø	§J		3.0		100	5.0	80	100n#	2.0Ø	1.0	50	150 #	50M§		300nØØ	DPE	TO59		
47	TN301†	172m	30 Ø	§A		3.0		100	5.0	80		1.0Ø	50m	50 Ø		40M§	250m	50n	PE	MT47		
48	TN302†	172m	30 Ø	§A		3.0		100	5.0	80		1.0Ø	50m	15	25 Ø	40M§	400m	60n	PE	MT47		
49	TN303†	172m	30 Ø	§A		3.0		60	5.0	40		1.0Ø	50m	25	50 Ø	40M§	250m	50n	PE	MT47		
50	TN304†	172m	30 Ø	§A		3.0		60	5.0	40		1.0Ø	50m	15	25 Ø	20M§	250m	60n	PE	MT47		
51	2N3929†	200m	20 Ø	§J		3.0	500m	80	4.0	40	1.0m#	4.0Ø	1.0	40	150 #	200M§Δ	3.3	30n		TO59		Ø
52	2N5017	200m#	30 Ø	§S		4.5	1.5	65	4.0	30		4.0Ø	500m	10	200	500M§Δ				MT67	L	
53#	3TE240	200m	25	§J		3.0		80	4.0	80	10uØ	5.0Ø	1.5	10	60	200M§	300m		PE	TO3		
54	20C1	200m	15 Ø	§J		4.0	1.0	175	15	120	5.0m	5.0Ø	4.0	30	90	10M§	750m		DM	TO5		
55	1711-0402	200m	35 Ø	§J		5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO59		Ø
56	1711-0405	200m	35 Ø	§J		5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO59		Ø
57	1711-0602	200m	35 Ø	§J		5.0	2.0	70	7.0	60 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO59		Ø
58	1711-0605	200m	35 Ø	§J		5.0	2.0	70	7.0	60 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO59		Ø
59	1711-0802	200m	35 Ø	§J		5.0	2.0	90	7.0	80 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO59		Ø
60	1711-0805	200m	35 Ø	§J		5.0	2.0	90	7.0	80 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO59		Ø
61	1711-1002	200m	35 Ø	§J		5.0	2.0	110	7.0	100 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO59		Ø
62	1711-1005	200m	35 Ø	§J		5.0	2.0	110	7.0	100 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO59		Ø
63	1711-1202	200m	35 Ø	§J		5.0	2.0	130	7.0	120 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO59		Ø
64	1711-1205	200m	35 Ø	§J		5.0	2.0	130	7.0	120 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO59		Ø
65	1711-1402	200m	35 Ø	§J		5.0	2.0	150	7.0	140 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO59		Ø
66	1711-1405	200m	35 Ø	§J		5.0	2.0	150	7.0	140 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO59		Ø
67	1711-1602	200m	35 Ø	§J		5.0	2.0	170	7.0	160 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO59		Ø
68	1711-1605	200m	35 Ø	§J		5.0	2.0	170	7.0	160 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO59		Ø
69	1711-1802	200m	35 Ø	§J		5.0	2.0	190	7.0	180 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO59		
70	1717-0402	200m	35 Ø	§J		5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO62		Ø
71	1717-0405	200m	35 Ø	§J		5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO62		Ø
72	1717-0602	200m	35 Ø	§J		5.0	2.0	70	7.0	60 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO62		Ø
73	1717-0605	200m	35 Ø	§J		5.0	2.0	70	7.0	60 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO62		Ø
74	1717-0802	200m	35 Ø	§J		5.0	2.0	90	7.0	80 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO62		Ø
75	1717-0805	200m	35 Ø	§J		5.0	2.0	90	7.0	80 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO62		Ø
76	1717-1002	200m	35 Ø	§J		5.0	2.0	110	7.0	100 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO62		Ø
77	1717-1005	200m	35 Ø	§J		5.0	2.0	110	7.0	100 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO62		Ø
78	1717-1202	200m	35 Ø	§J		5.0	2.0	130	7.0	120 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO62		Ø
79	1717-1205	200m	35 Ø	§J		5.0	2.0	130	7.0	120 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO62		Ø
80	1717-1402	200m	35 Ø	§J		5.0	2.0	150	7.0	140 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO62		Ø
81	1717-1405	200m	35 Ø	§J		5.0	2.0	150	7.0	140 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO62		Ø
82	1717-1602	200m	35 Ø	§J		5.0	2.0	170	7.0	160 Ø	4.0m#	4.0Ø	2.0	15 #		60M§Δ			EM	TO62		Ø
83	1717-1605	200m	35 Ø	§J		5.0	2.0	170	7.0	160 Ø	4.0m#	4.0Ø	5.0	15 #		60M§Δ			EM	TO62		Ø
84	1717-1802	200m	35 Ø	§J		5.0	2.0	190	7.0	180 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO62		
85#	C434†	200m§	15 Ø	§J				100	6.0	50	10uØ	2.0Ø	2.0	30 #	100 Ø	100M§		250nØ	DPE	TO3		CØ
86#	CP400	200m§	15 Ø	§J				40	5.0	40	10uØ	5.0Ø	2.0	25 #	75 Ø	45M§			DPE	TO3		CØ
87#	CP401	200m§	15 Ø	§J				60	5.0	60	10uØ	5.0Ø	2.0	25 #	75 Ø	45M§			DPE	TO3		CØ
88#	CP402	200m§	15 Ø	§J				100	5.0	100	10uØ	5.0Ø	2.0	25 #	75 Ø	45M§			DPE	TO3		CØ
89#	CP404	200m§	15 Ø	§J				80	5.0	60	10uØ	5.0Ø	1.0	30	120 #	40M§			DPE	TO3		CØ
90#	CP405	200m§	15 Ø	§J				80	5.0	60	10uØ	5.0Ø	2.0	50	150 #	50M§			DPE	TO3		CØ
91#	CP406†	200m§	15 Ø	§J		10		60	5.0	60	10uØ	10Ø	2.0	40 #	120 Ø	100M§		500nØØ	DPE	TO3		CØ
92#	CP407†	200m§	15 Ø	§J		5.0		60	5.0	60	10uØ	10Ø	500m	30 #	140 Ø	100M§		500nØØ	DPE	TO3		CØ
93#	CP408†	200m§	15 Ø	§J		2.0		40	5.0	40	10uØ	10Ø	500m	30 #	150 Ø	100M§		500nØØ	DPE	TO3		CØ
94	SE3040	200m§	15 Ø	§J		5.0	2.0	80	6.0	40	1.0u§	2.0Ø	2.0	40	120 #	120M§		300nØ	DPE	TO66		CØ
95	SE3041	200m§	15 Ø	§J		5.0	2.0	120	6.0	60	1.0u§	2.0Ø	2.0	40	120 #	120M§		300nØ	DPE	TO66		CØ
96	SE9060	200m		§J		2.0			6.0	80 Ø	10u§♦	5.0Ø	1.0	30	90 #	50MΔ			DPL	MD10e		Ø
97	SE9061	200m		§J		2.0			6.0	80 Ø	10u§♦	5.0Ø	1.0	70	300 #	60MΔ			DPL	MD10e		Ø
98	SE9062	200m		§J		2.0			6.0	100 Ø	10u§♦	5.0Ø	1.0	30	90 #	50MΔ			DPL	MD10e		Ø
99	SE9063	200m		§J		2.0			6.0	100 Ø	10u§♦	5.0Ø	1.0	70	300 #	60MΔ			DPL	MD10e		Ø
100	2N1047C	227m	40	§J		8.0 Ø#	1.0 #	80	10	80	1.0uØ	10Ø	500m	12	36	12M§	2.0		ME	MT5		
101	2N1048C	227m	40	§J		8.0 Ø#	1.0 #	120	10	120	1.0uØ	10Ø	500m	12	36	12M§	2.0		ME	MT5		
102	2N1049C	227m	40 Ø	§J		8.0 Ø#	1.0 #	80	10	80	1.0uØ	10Ø	500m	30	90	12M§	2.0		ME	MT5		
103	2N1050C	227m	40 Ø	§J		8.0 Ø#	1.0 #	120	10	120	1.0uØ	10Ø	500m	30	90	12M§	2.0		ME	MT5		
104	STC1311	227mØ		§J		1.5		80		60		4.0Ø	.50	12 †	36		5.0			MT5		
105	STC1312	227mØ		§J		1.5		120		60		4.0Ø	.50	12 †	36		5.0			MT5		
106	STC1313	227mØ		§J		1.5		80		60		4.0Ø	.50	30 †	90		5.0			MT5		
107	STC1314	227mØ		§J		1.5		120		60		4.0Ø	.50	30 †	90		5.0			MT5		
108	STC1331	227mØ		§J		1.5		80		60		4.0Ø	.50	75 †	150		5.0			MT5		
109	STC1332	227mØ		§J		1.5		120		60		4.0Ø	.50	75 †	150		5.0			MT5		
110	ST402	250m§	25 Ø	§A				60	5.0	60	20m	12Ø	2.0	15	40 Ø		4.0	250n	D	MS2		

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CONFIG
1	ST403	250m$	25 Ø	$A			45	5.0	45	20m	12Ø	2.0	15	40 Ø		3.0	250n	D	MS2	
2#	BLY25	300m$	30 Ø	$J	5.0		120	8.0	80	50uΔ	5.0Ø	2.0	100	300	70M$Δ	300m		DPE	TO59	
3#	BLY26	300m$	30 Ø	$J	5.0		100	8.0	60	50uΔ	5.0Ø	2.0	40 #		70M$Δ	300m		DPE	TO59	
4#	CP430	300m#	30 Ø	$J	5.0		100	8.0	60	10u$	5.0Ø	2.0	40	120 #	140M$			DPE	TO3	CØ
5#	CP431	300m#	30 Ø	$J	5.0		100	8.0	60	10u$	5.0Ø	2.0	100	300 #	150M$			DPE	TO3	CØ
6#	CP432	300m#	30 Ø	$J	5.0		120	8.0	80	10u$	5.0Ø	2.0	40	120 #	140M$			DPE	TO3	CØ
7#	CP433	300m#	30 Ø	$J	5.0		120	8.0	80	10u$	5.0Ø	2.0	100	300 #	150M$			DPE	TO3	CØ
8	A522	303mØ	45	$J	5.0	1.0	60	6.0	35	50uØ	0.0	1.5	30	100	80M$			PE	TO3	
9	A523	303mØ	45	$J	5.0	1.0	90	6.0	60	50uØ	0.0	1.5	30	100	80M$			PE	TO3	
10#	3TE230	322m	48 Ø	$J	4.0	1.5	80	4.0	80	10uØ	5.0Ø	1.5	10 #	60				DPE	TO3	DØ
11	2N1470	333mØ	55 Ø	$J	1.0		60	3.0	60 Ø	5.0m	5.0Ø	1.0	15		1.0M†Δ	3.0		PD	TO3	
12	2N1657	333m		$J	2.0		60	3.0		5.0m	5.0Ø	1.0	15		1.0M†			D	MS3	
13	3TX003	333m	53 Ø	#J	5.0		100	5.0	80 Ø	10m	5.0Ø	5.0	10		150k	400m		PEΔ	TO3	CØ
14	3TX004	333m	53 Ø	#J	5.0		60	3.0	50 Ø	10m	5.0Ø	5.0	10		150k	400m		PEΔ	TO3	CØ
15	B3556	333m	20 Ø$	§C	5.0		90	8.0	60	100nØ		1.0	40	120	20M§Δ	250m		PE	TO59	
16	B3557	333m	20 Ø$	§C	5.0		120	8.0	80	100nØ		1.0	40	120	20M§Δ	250m		PE	TO59	
17	B3558	333m	20 Ø$	§C	5.0		150	8.0	100	100nØ		1.0	40	120	20M§Δ	250m		PE	TO59	
18	B3559	333m	30 Ø$	§C	5.0		60	7.0	40	100nØ		1.0	20	60	30M§Δ	250m		PE	TO59	
19	B3560	333m	30 Ø$	§C	5.0		80	8.0	60	100nØ		1.0	20	60	30M§Δ	250m		PE	TO59	
20	B3561	333m	30 Ø$	§C	5.0		100	8.0	80	100nØ		1.0	20	60	30M§Δ	250m		PE	TO59	
21	B3562	333m	30 Ø$	§C	5.0		60	7.0	40	100nØ		1.0	40	120	40M§Δ	250m		PE	TO59	
22	B3563	333m	30 Ø$	§C	5.0		80	8.0	60	100nØ		1.0 Ø	40	120	40M§Δ	250m		PE	TO59	
23	B3564	333m	30 Ø$	§C	5.0		100	8.0	80	100nØ		1.0 Ø	40	120	40M§Δ	250m		PE	TO59	
24	B3565	333m	30 Ø$	§C	5.0		60	7.0	40	100nØ		1.0 Ø	100	300	50M§Δ	250m		PE	TO59	
25	B3566	333m	30 Ø$	§C	5.0		80	8.0	60	100nØ		1.0 Ø	100	300	50M§Δ	250m		PE	TO59	
26	B3567	333m	30 Ø$	§C	5.0		100	8.0	80	100nØ		1.0 Ø	100	300	50M§Δ	250m		PE	TO59	
27	B3631	333m	30 Ø$	§C	5.0		80	8.0	60	100uØ		1.0 Ø	20	60	30M§Δ	250m		PE	TO59	
28	B3632	333m	30 Ø$	§C	5.0		80	8.0	60	100uØ		1.0 Ø	40	120	50M§Δ	250m		PE	TO59	
29	B3633	333m	30 Ø$	§C	5.0		100	8.0	80	100uØ		1.0 Ø	20	60	30M§Δ	250m		PE	TO59	
30	B3634	333m	30 Ø$	§C	5.0		100	8.0	80	100uØ		1.0 Ø	40	120	50M§Δ	250m		PE	TO59	
31	BR100C§	333m	35 Ø	§J	10	2.0	60	3.0	40	1.0mØ	5.0Ø	3.0	40	200 #	300M§				TO59	A
32	BR100F§	333m	35 Ø	§J	10	2.0	60	3.0	40	1.0mØ	5.0Ø	3.0	40	200 #	300M§				MT50a	A
33	BR101C§	333m	35 Ø	§J	10	2.0	90	3.0	75	1.0mØ	5.0Ø	3.0	30	150 #	300M§				TO59	A
34	BR101F§	333m	35 Ø	§J	10	2.0	90	3.0	75	1.0mØ	5.0Ø	3.0	30	150 #	300M§				MT50a	A
35	BR200B§	333m	50 Ø	§J	20	8.0	60	3.0	40	1.0mØ	5.0Ø	10	40	150 #	200M§				MT50a	AØ
36	BR201B§	333m	50 Ø	§J	20	8.0	90	3.0	75	1.0mØ	5.0Ø	10	40	150 #	200M§				MT50a	AØ
37	NS9210†	333m	50	§	5.0	.50	200	5.0	200	.01m	15Ø	2.0	20 #		100M§	1.5	.08u§	PE	TO61	
38	NS9211†	333m	50	§	5.0	.50	250	5.0	250	.01m	15Ø	2.0	20 #		100M§	1.5	.08u§	PE	TO61	
39	STC1001	333mØ					100		40		4.0Ø	1.5			1.0M†			D		
40	2N1210/I	400m		§	5.0		60	8.0	60	20m	12Ø	2.0	15	75	2.5M†	1.0	.90u		MS3	
41	2N1211/I	400m		§	5.0		80	8.0	70	10m	12Ø	2.0	15	75	2.5M†	1.0	11u		MS3	
42	2N1616/I	400m		§	5.0		60	8.0		10m	12Ø	2.0	15	75	2.5M†	1.0	.90u		MT10	
43	2N1617/I	400m		§	5.0		80	8.0	70	10m	12Ø	2.0	15	75	2.5M†	1.0	.90u		MT10	
44	2N1618/I	400m		§	5.0		100	8.0	80	10m	12Ø	2.0	15	75	2.5M†	1.0	900n		MT10	
45	2N1619	400mØ									1.0	2.0	35 Ø		15k		1.2u	D		
46	2N1620/I	400m		§	5.0		100	8.0	80	10m	12Ø	2.0	15	75	2.5M†	1.0	.90u		MS3	
47	3TE130	400m	60	$J	5.0		90	4.0	80	10uØ	5.0Ø	5.0	20	80	180M§	200m		PE	TO3	
48	3TE220	400m	60 Ø	§J	5.0	2.0	80	4.0	80	10uØ	5.0Ø	4.5	10	60 #				DPE	TO3	
49	3TX002	400m	70 Ø	#J	5.0		100	5.0	80 Ø	10m	5.0Ø	5.0	30		150k	200m		PEΔ	TO3	CØ
50	4JD20A7	400m	2.0	$J	2.0	1.0	50	8.0	30	10u#	5.0Ø	1.0	20	60	10M$Δ	1.2			MT47	
51	4JD20A8	400m	2.0	$J	2.0	1.0	50	8.0	30	10u#	5.0Ø	1.0	40	120	10M$Δ	1.2			MT47	
52	20A10	400m	30 Ø	$J	2.0	1.0	125	8.0	80	1.0m	5.0Ø	1.0	90	180	10M$	1.0		DM	TO59	
53	20A11	400m	30 Ø	$J	2.0	1.0	100	8.0	60	1.0m	5.0Ø	1.0	90	180	10M$	1.0		DM	TO59	
54	20A12	400m	30 Ø	$J	5.0	1.0	175	15	120	5.0m	5.0Ø	5.0	30	90	10M$	1.0		DM	TO59	
55	BR100E§	400m	35 Ø	§J	10	2.0	60	3.0	40	1.0mØ	5.0Ø	3.0	40	200 #	300M§				MT50a	AØ
56	BR101E§	400m	35 Ø	§J	10	2.0	90	3.0	75	1.0mØ	5.0Ø	3.0	30	150 #	300M§				MT50a	AØ
57	BR200A§	400m	50 Ø	§J	20	8.0	60	3.0	40	1.0mØ	5.0Ø	10	40	150 #	200M§	200m			MT50a	AØ
58	BR201A§	400m	50 Ø	§J	20	8.0	90	3.0	75	1.0mØ	5.0Ø	10	40	150 #	200M§	200m			MT50a	AØ
59#	DT4110	400m	30 Ø	$S	1.5	300m	45	8.0	30	1.0m	6.0Ø	1.5	15	45	500k§Δ	1.5		D	TO3	
60#	DT4111	400m	30 Ø	$S	1.5	300m	80	8.0	60	1.0m	6.0Ø	1.5	15	45	500k§Δ	1.5		D	TO3	
61#	DT4112	400m	30 Ø	$S	1.5	300m	120	8.0	100	1.0m	6.0Ø	1.5	15	45	500k§Δ	1.5		D	TO3	
62#	DT4120	400m	30 Ø	$S	1.5	300m	45	8.0	30	1.0m	6.0Ø	1.5	30	90	500k§Δ	1.5		D	TO3	
63#	DT4121	400m	30 Ø	$S	1.5	300m	80	8.0	60	1.0m	6.0Ø	1.5	30	90	500k§Δ	1.5		D	TO3	
64	STC1035	400m		§J	7.5		30		30		4.0Ø	2.0	10 †			.75			TO3	
65	STC1035A	400m		§J	7.5		60		60		4.0Ø	2.0	10 †			.75			TO3	
66	STC1036	400m		§J	7.5		30		30		4.0Ø	5.0	10 †			.50			TO3	
67	STC1036A	400m		§J	7.5		60		60		4.0Ø	5.0	10 †			.50			TO3	
68#	XC723	400mØ		§C	6.0	3.0	60	10	40	.02mØ	4.0Ø	1.5	10	50	1.0M†	2.0	1.0u	D	TO3	
69	JAN2N1511	429m	75 Ø	§J	6.0	3.0	60	10	40	25uØ	4.0Ø	1.5	15	45	500k†Δ	2.0		Δ	TO67	Ø
70	JAN2N1512	429m	75 Ø	§J	6.0	3.0	100	10	55	25uØ	4.0Ø	1.5	15	45	500k†Δ	2.0		Δ	TO67	Ø
71	JAN2N1513	429m	75 Ø	§J	6.0	3.0	60	10	40	25uØ	4.0Ø	1.5	25	75	500k†Δ	670m		Δ	TO67	Ø
72	JAN2N1514	429m	75 Ø	§J	6.0	3.0	100	10	55	25uØ	4.0Ø	1.5	25	75	500k†Δ	670m		Δ	TO67	Ø
73	AMF104	429m	75 Ø	$J	4.0		30	.50	30 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
74	AMF105	429m	75 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
75	AMF106	429m	75 Ø	$J	4.0		100	.50	100 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
76	AMF115	429m	75 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	5.0		MEΔ	TO3	
77	AMF116	429m	75 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	1.5		MEΔ	TO3	
78	AMF117	429m	75 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
79	AMF117A	429m	75 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
80	AMF118	429m	75 Ø	#J	4.0		45	.50	45 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
81	AMF118A	429m	75 Ø	#J	4.0		45	.50	45		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
82	AMF119	429m	75 Ø	#J	4.0		35	.50	30		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
83	AMF119A	429m	75 Ø	#J	4.0		35	.50	35 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
84	AMF120	429m	75 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
85	AMF120A	429m	75 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
86	F104	429m	75 Ø	$J	4.0		30	.50	30 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
87	F105	429m	75 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
88	F106	429m	75 Ø	$J	4.0		100	.50	100 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
89	F115	429m	75 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	5.0		MEΔ	TO3	
90	F116	429m	75 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	1.5		MEΔ	TO3	
91	F117	429m	75 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
92	F117A	429m	75 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
93	F118	429m	75 Ø	#J	4.0		45	.50	45 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
94	F118A	429m	75 Ø	#J	4.0		45	.50	45 Ø		15Ø	1.0	10	50	10k	800m		MEΔ	TO3	
95	F119	429m	75 Ø	#J	4.0		35	.50	35 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
96	F119A	429m	75 Ø	#J	4.0		35	.50	35 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
97	F120	429m	75 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	TO3	
98	F120A	429m	75 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	TO3	
99#	ZT1511	429m	75 Ø♦	§C	6.0	3.0	60	10	60 #	25uØ	4.0Ø	1.5	15	45		2.0	1.0u	D	TO36	Ø
100#	ZT1512	429m	75 Ø♦	§C	6.0	3.0	100	10	100 #	25uØ	4.0Ø	1.5	15	45		2.0	1.0u	D	TO36	Ø
101#	ZT1513	429m	75 Ø♦	§C	6.0	3.0	60	10	60 #	25uØ	4.0Ø	1.5	25	75		670m	1.0u	D	TO36	Ø
102#	ZT1514	429m	75 Ø♦	§C	6.0	3.0	100	10	100 #	25uØ	4.0Ø	1.5	25	75		670m	1.0u	D	TO36	Ø
103#	ZT1703	429m	75 Ø♦	§C	5.0	2.5	60	6.0	40	200uØ	4.0Ø	800m	15	60	1.0M†	4.0	1.2uØ	D	TO36	Ø
104	2N1250/I	450m		§	5.0		60	10	60	10m	12Ø	2.0	15	60	2.5M†	25	900n		MS3	
105	2N2908	454m	45 Ø	§C	5.0	2.0	80	10	80 §		15Ø	1.0	12	20	1.0M	10			TO53	
106	2N1208/I	455m		§	5.0		60	10	60		12Ø	2.0	15	60	2.5M†	2.5	.90u		MT10	
107	2N1209/I	455m		§	5.0		45	5.0			12Ø	2.0	20	80	2.5M†	2.5	.90u		MT10	
108	2N1212/I	455m		§	5.0		60	10	60	10m	15Ø	1.0	12	36	2.5M†	5.0	11u		MT10	
109	2N2032/I	455m		§	3.0		45	5.0		2.0m	12Ø	2.0	20		2.5M†	2.5	.90u		MS3	
110#	2S013	476m	60	$J	2.0	.50	60	10	60		10	1.0	10	50	5M	10		D	MS3	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	AMF101	476m	85 Ø	$J	4.0		30	.50	30 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
2	AMF102	476m	85 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
3	AMF103	476m	85 Ø	$J	4.0		100	.50	100 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
4	AMF107	476m	85 Ø	$J	4.0		30	.50	30 Ø		15Ø	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
5	AMF108	476m	85 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
6	AMF109	476m	85 Ø	$J	4.0		100	.50	100 Ø		15Ø	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
7	AMF110	476m	85 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.5M†	1.5		MEΔ	MT10	
8	AMF111	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.5M†	5.0		MEΔ	MT10	
9	AMF112	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	5.0		MEΔ	MS3	
10	AMF113	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	1.5		MEΔ	MS3	
11	AMF114	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.5M†	1.5		MEΔ	MT10	
12	AMF121	476m	85 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
13	AMF121A	476m	85 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
14	AMF122	476m	85 Ø	#J	4.0		45	.50	45 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
15	AMF122A	476m	85 Ø	#J	4.0		45	.50	45 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
16	AMF123	476m	85 Ø	#J	4.0		35	.50	35 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
17	AMF123A	476m	85 Ø	#J	4.0		35	.50	35 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
18	AMF124	476m	85 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
19	AMF124A	476m	85 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
20	F101	476m	85 Ø	$J	4.0		30	.50	30 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
21	F102	476m	85 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
22	F103	476m	85 Ø	$J	4.0		100	.50	100 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
23	F107	476m	85 Ø	$J	4.0		30	.50	30 Ø		15Ø	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
24	F108	476m	85 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
25	F109	476m	85 Ø	$J	4.0		100	.50	100 Ø		15Ø	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
26	F110	476m	85 Ø	$J	4.0		60	.50	60 Ø		15Ø	1.0	10	50	1.5M†	1.5		MEΔ	MT10	
27	F111	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.5M†	5.0		MEΔ	MT10	
28	F112	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	5.0		MEΔ	MS3	
29	F113	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.0M†	1.5		MEΔ	MS3	
30	F114	476m	85 Ø	$J	7.5		60	.50	60 Ø		15Ø	2.0	10	50	1.5M†	1.5		MEΔ	MT10	
31	F121	476m	85 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
32	F121A	476m	85 Ø	#J	4.0		55	.50	55 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
33	F122	476m	85 Ø	#J	4.0		45	.50	45 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
34	F122A	476m	85 Ø	#J	4.0		45	.50	45 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
35	F123	476m	85 Ø	#J	4.0		35	.50	35 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
36	F123A	476m	85 Ø	#J	4.0		35	.50	35 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
37	F124	476m	85 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
38	F124A	476m	85 Ø	#J	4.0		25	.50	25 Ø		15Ø	1.0	10	50	1.0M†	800m		MEΔ	MS3	
39	ST440	476m	60 Ø	$S	2.0		60	5.0	60	20m	15Ø	1.0	10	25 #	4.0M		1.8u		MS2	
40	ST450	476m	60 Ø	§	2.0		60	5.0	60	20m	15Ø	1.0	10 #	25 Ø	4.0M		1.8u	DΔ	MT10	
41	ST7120	476mØ		§	3.0		45	8.0	35	10m	12	2.0	20	80		5.0		D	MS3	
42	ST7130	476mØ		§	3.0		45	8.0	35	10m	12	2.0	20	80		5.0		D	MT10	
43	STC1101	476m		§	6.0	3.0	60	10	40		4.0Ø	1.5	10	50	1.0M†	2.0		D		
44	STC1102	476m		§	6.0	3.0	100	10	55		4.0Ø	1.5	10	50	1.0M†	2.0		D		
45	STC1103	476m		§	6.0	3.0	60	10	40		4.0Ø	1.5	25	75	1.0M†	.67		D		
46	STC1104	476m		§	6.0	3.0	100	10	55		4.0Ø	1.5	25	75	1.0M†	.67		D		
47	STC1105	476m		$J	7.5		30		30		4.0Ø	2.0	10 †			.75			MS3	
48	STC1105A	476m		$J	7.5		60		60		4.0Ø	2.0	10 †			.75			MS3	
49	STC1106	476m		$J	7.5		30		30		4.0Ø	5.0	10 †			.50			MS3	
50	STC1106A	476m		$J	7.5		60		60		4.0Ø	5.0	10 †			.50			MS3	
51	TT500	476mØ		$J	2.0		60	10	60	10m	15Ø	1.0 Ø	45	135	25M§Δ			D	MT10	
52	TT501	476mØ		$J	2.0		80	10	80	10m	15Ø	1.0 Ø	45	135	25M§Δ			D	MT10	
53	TT502	476mØ		$J	2.0		100	10	100	10m	15Ø	1.0 Ø	45	135	25M§Δ			D	MT10	
54#	2SC492	478m	50 Ø	$J	5.0		110	5.0	110	10mØ	5.0Ø	1.0 Δ	60 †		20M§			ME	TO3	
55	2N389/I	480m		§	3.0		60	10	60		15Ø	1.0	12	60	2.5M†	5.0	900n		MS3	
56	2N389A/I	480m		§	3.0		60	10	60		4.0Ø	1.0	12	60	2.5M†	750m	900n		MS3	
57	2N424/I	480m		§	3.0		80	10	80		15Ø	1.0	12	60	2.5M†	1.0	900n		MS3	
58	2N424A/I	480m		§	3.0		80	10	80		4.0Ø	1.0	12	60	2.5M†	750m	900n		MS3	
59	2N1616A/I	480m		§	7.5		60	10	60	10m	4.0Ø	5.0	10		2.5M†	500m	900n		MT10	
60	2N1617A/I	480m		§	7.5		80	10	70	10m	4.0Ø	5.0	10		2.5M†	500m	900n		MT10	
61	2N1618A/I	480m		§	7.5		100	10	80	10m	4.0Ø	5.0	10		2.5M†	500m	900n		MT10	
62	2N1722/I	480m		§	7.5		120	10	80	10m	15Ø	2.0	20	90	2.5M†	500m	900n		MS3	
63	2N1724/I	480m		§	7.5		120	10	80		15Ø	2.0	20	90	2.5M†	500m	900n		MT10	
64#	2SC101	480mØ		$J	2.0			5.5		3.0mØ	10	500m	16 †					ME	MD10	
65	2N1660†	485mØ	85 Ø	$J	2.0		60	10	60 §		15Ø	1.0 Ø	45	135	25M§Δ	4.0	110nØ	PDΔ	MS3	
66	2N1661†	485mØ	85 Ø	$J	2.0		80	10	80 §		15Ø	1.0 Ø	45	135	25M§Δ	4.0	110nØ	PDΔ	MS3	
67	2N1662†	485mØ	85 Ø	$J	2.0		100	10	100 §		15Ø	1.0 Ø	45	135	25M§Δ	4.0	110nØ	PDΔ	MS3	
68	2N1722A/I	485m	85 Ø	§C	7.5		180		120		5.0Ø	5.0	20			300m			TO61	
69	2N1724A/I	485m	85 Ø	§C	7.5		180		120		5.0Ø	5.0	20			300m			TO61	
70	2N1894	485mØ	85 Ø	$J	2.0		60	10	60		15Ø	1.0 Ø	12	60	25M§Δ	5.0		DΔ	MT16	
71	2N1895	485mØ	85 Ø	$J	2.0		80	10	80		15Ø	1.0 Ø	12	60	25M§Δ	10		DΔ	MT16	
72	2N1896	485mØ	85 Ø	$J	2.0		60	10	60 §		15Ø	1.0 Ø	45	135	25M§Δ	4.0	110nØ	DΔ	MT16	
73	2N1897	485mØ	85 Ø	$J	2.0		80	10	80 §		15Ø	1.0 Ø	45	135	25M§Δ	4.0	110nØ	DΔ	MT16	
74	2N1898	485mØ	85 Ø	$J	2.0		100	10	100 §		15Ø	1.0 Ø	45	135	25M§Δ	4.0	110nØ	DΔ	MT16	
75#	2S720	500mØ		$A	1.0	.50		5.0	120	10m	10Ø	.50	10	30 Ø	3M†			D	MS3	
76#	2SC21	500mØ		$J	2.0		60	5.5	60	1.0mØ	10	1.0	25 Ø				.12u	MEΔ	TO3	
77#	2SC244	500mØ	75 Ø	$J	6.5		60	5.0	60 Ø	50m	10Ø	1.0	15	35 Ø	35M†	500m		ME	TO3	
78#	2SC245	500mØ	75 Ø	$J	6.5		120	5.0	120 Ø	20m	10Ø	1.0	15	35 Ø	35M†	500m		ME	TO3	
79#	2SC246	500mØ	75 Ø	$J	6.5		180	5.0	180 Ø	20m	10Ø	1.0	15	35 Ø	35M†	500m		ME	TO3	
80#	180T2	500m	85	$J	6.0	3.0	60	10	60		4.0Ø	2.0	15 #	180 *	10M§			ME	TO3	
81#	181T2	500m	85	$J	6.0	3.0	100	10	90		4.0Ø	2.0	15 #	180 *	10M§			ME	TO3	
82#	182T2	500m	85	$J	6.0	3.0	200	10	140		4.0Ø	2.0	15 #	180 *	10M§			ME	TO3	
83#	183T2	500m	85	$J	6.0	3.0	300	10	180		4.0Ø	2.0	15 #	180 *	10M§			ME	TO3	
84#	184T2	500m	85	$J	6.0	3.0	400	10	200		4.0Ø	2.0	15 #	180 *	10M§			ME	TO3	
85#	185T2	500m	85	$J	6.0	3.0	500	10	250		4.0Ø	2.0	15 #	180 *	10M§			ME	TO3	
86	1716-0402	500m	50 Ø	$J	5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO61	
87	1716-0405	500m	50 Ø	$J	5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO61	
88	1718-0402	500m	50 Ø	$J	5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO111	
89	1718-0405	500m	50 Ø	$J	5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO111	
90	40464	500mØ	40 Ø	$J	5.0		35	4.0	35	250u	1.0Ø	2.0	30	170	5.0M§	130m		E	TO3	CØ
91	40465	500mØ	40 Ø	$J	5.0		40	4.0	40	100u	1.0Ø	2.0	50	170	5.0M§	130m		E	TO3	CØ
92	40466	500mØ	40 Ø	$J	5.0		50	4.0	50	100u	1.0Ø	2.0	50	170	5.0M§	130m		E	TO3	CØ
93	B3045	500m	20	$J	2.0	.50			15	.05m	5.0Ø	.50	20			1.0		D	TO3	
94	B3046	500m	20	$J	2.0	.50			15	.05m	5.0Ø	.50	20			1.0		D	TO41	
95	B3456	500m	25 Ø		10		100	6.0	60	25uØ	10Ø	5.0	30		200M§Δ	250m		PE	TO61	Ø
96	B3459	500m	25 Ø		10		80	8.0	40	5.0uØ	5.0Ø	1.0	40	150	200M§Δ	200m		PE	TO61	Ø
97	B3459A	500m	25 Ø		10		100	8.0	60	5.0uØ	5.0Ø	1.0	40	150	200M§Δ	200m		PE	TO61	Ø
98	SE9020†	500m	62	$J	7.0	2.0	400	5.0	180	10u§	5.0Ø	1.0	30 #	125 Ø	70M§		1.0u#Ø	DPE	TO3	CØ
99	SEC1077	500m		§			100	9.0	100 §			500m	1.0k			2.0			MS3	
100	SEC1078	500m		§			50	9.0	50 §			2.0	1.0k			2.0			MS3	
101	SEC1079	500m		§			50	9.0	50 §			2.0	1.0k			2.0			MS3	
102	SEC1080	500m		§			100	9.0	100 §			2.0	1.0k			2.0			MS3	
103	ST415	500m	45 Ø	$J			80	10	80	10mØ	15Ø	1.0	12	60	8.0M§Δ	10		D	MT10	
104#	TK200A	500m	10 Ø	$J	500m	600mØ	40	6.0	20	1.0uØ	9.0Ø	20m	8.0 †		50M§Δ			D	TO3	
105#	TK201A	500m	10 Ø	$J	500m	600mØ	40	6.0	20	1.0uØ	9.0Ø	20m	20 †		100M§Δ			D	TO3	
106	USAF514ES050M 500m	2.0		$J	12	5.0	135	7.0	100	1.0uØ	1.0Ø	1.0	35	150 #	50M§Δ	150m	1.0uØ		X15a	
107	USAF525ES085M† 500m	2.0		$J	15	5.0	100	8.0	100		3.0Ø	15	27	65	20M§Δ	13	500n	PE	X20	
108	AMF210 526m	80 Ø		$C	8.0			.50	30 Ø		15Ø	5.0	10		1.5M†	800m		ME	MD19	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DESCRIPTION DWG. No.	LEAD CODE
1	AMF210A	526m	80 Ø	$C	8.0			.50	60 Ø		15Ø	5.0	10		1.5M†	800m		ME	MD19	
2	AMF210B	526m	80 Ø	$C	8.0			.50	100 Ø		15Ø	5.0	10		1.5M†	800m		ME	MD19	
3	AMF210C	526m	80 Ø	$C	8.0			.50	150 Ø		15Ø	5.0	10		1.5M†	800m		ME	MD19	
4	STC389	556mØ							60		4.0Ø	1.5			2.0M†			D		
5	2N3577	564m	85 Ø	§S	2.0	500m	100	10	80	100u#	15Ø	1.0	12	60	10M§Δ	5.2			TO53	Ø
6	2N2403	571mØ	8.0 Ø	§	1.0		60	5.0	60 Ø	50u	2.5Ø	600m	20	60	150M†	2.5	20n	EΔ	TO5	
7	2N2404	571mØ	8.0 Ø	§	1.0		60	5.0	60 Ø	50u	2.5Ø	600m	40	120	150M†	2.5	20n	EΔ	TO5	
8	AMF201	625m	85 Ø	$C	13			.50	30 Ø		15Ø	10	10		1.0M†	400m		ME	MD19	
9	AMF201A	625m	85 Ø	$C	13			.50	60 Ø		15Ø	10	10		1.0M†	400m		ME	MD19	
10	2N451	666m	85 Ø	$J	5.0	500m	65	10	65	20m	10Ø	1.0	10			4.0		D	MT4	
11	2N452	666m	85 Ø	$J	5.0	500m	65	10	65	50m	20Ø	2.0	8.0	12 Ø	400k†	2.5		DΔ	MT4	
12	2N453	666m	85 Ø	$J	2.0	500m	30	10	30	20m	20Ø	1.0	20	30 Ø	400k†	6.0		D	MT4	
13	2N454	666m	85 Ø	$J	2.0	500m	65	10	65	20m	20Ø	1.0	8.0	15 Ø	400k†	10		D	MT4	
14	2N5049†	666m	100 Ø	§J	10	2.0	60	14	50	1.0m#	4.0Ø	10	15	60	10M§Ø	250m	1.0u		TO61	AØ
15	6B10	666m	50 Ø	§J	10	5.0	175	15	120	10m	15Ø	10	30	90	10M§	500m		DM	TO61	
16	1713-0402	666m	115 Ø	§J	5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
17	1713-0405	666m	115 Ø	§J	5.0	2.0	50	7.0	40 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO3	
18	1713-0602	666m	115 Ø	§J	5.0	2.0	70	7.0	60 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
19	1713-0605	666m	115 Ø	§J	5.0	2.0	70	7.0	60 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO3	
20	1713-0802	666m	115 Ø	§J	5.0	2.0	90	7.0	80 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
21	1713-0805	666m	115 Ø	§J	5.0	2.0	90	7.0	80 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO3	
22	1713-1002	666m	115 Ø	§J	5.0	2.0	110	7.0	100 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
23	1713-1005	666m	115 Ø	§J	5.0	2.0	110	7.0	100 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO3	
24	1713-1202	666m	115 Ø	§J	5.0	2.0	130	7.0	120 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
25	1713-1205	666m	115 Ø	§J	5.0	2.0	130	7.0	120 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO3	
26	1713-1402	666m	115 Ø	§J	5.0	2.0	150	7.0	140 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
27	1713-1405	666m	115 Ø	§J	5.0	2.0	150	7.0	140 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO3	
28	1713-1602	666m	115 Ø	§J	5.0	2.0	170	7.0	160 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
29	1713-1605	666m	115 Ø	§J	5.0	2.0	170	7.0	160 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO3	
30	1713-1802	666m	115 Ø	§J	5.0	2.0	190	7.0	180 Ø	4.0m#	4.0Ø	2.0	15 #		40M§Δ			EM	TO3	
31	A1381	666m	100 Ø	§J	10		100	4.0	80 §	10mØ	1.0	10 Δ	4.0		50M§Δ			PL	TO36	
32	B1480051†	666m	100 Ø	§S	15	4.0		7.0	60	10u§	5.0Ø	2.0	40	160 #	60M§Δ	100m	200n		TO61	AØ
33	TIX155	666m$	50 Ø	§J	10	1.0	120	15	80	5.0m	5.0Ø	2.0	1.5k	10k#		500m		PME	TO53	
34#	2SC519	667m	50	$J	5.0		110	5.0	100	10mØ	5.0Ø	1.0	50 Ø		20k§			ME	TO3	
35#	2SC520	667m	50	$J	5.0		70	5.0	80	10mØ	5.0Ø	1.0	50 Ø		20k§			ME	TO3	
36#	2SC521	667m	50	§J	5.0		40	5.0	50	10mØ	5.0Ø	1.0	50 Ø		20k§			ME	TO3	
37	CTP1136	667m		#J			60	20				.50				.50		A		
38#	ST66†	667mØ	80	§J	6.0	3.0	60	10	40	1.0m	4.0	1.5	10	80	25k†	1.0	1.3u	D	TO3	
39#	ST610†	667mØ	80	§J	6.0	3.0	100	10	55	.10m	4.0	1.5	10	80	25k†	1.0	1.3u	D	TO3	
40#	ST615†	667mØ	80	§J	6.0	3.0	150	10	70	.10m	4.0	1.5	10	80	25k†	1.0	1.3u	D	TO3	
41	156-04	684m	120 Ø	§J	8.0	3.0	50	10	40	20m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	TO3	
42	156-06	684m	120 Ø	§J	8.0	3.0	70	10	60	20m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	TO3	
43	156-08	684m	120 Ø	§J	8.0	3.0	90	10	80	20m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	TO3	
44	156-10	684m	120 Ø	§J	8.0	3.0	110	10	100	20m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	TO3	
45	2N2902	729m	40 Ø	§S	750m	500m	120	10	120		10	50m	30	90 #		15			MT5	
46	2N1675	800m	100 Ø	$J	10		5.0		70 §		10Ø	1.0	25	44 Ø	55M†	500m	180nØ	D	TO32	
47#	2SC102	800mØ		$J	7.0			5.0		45mØ	10	500m	10 †					ME	TO36	
48	40444	800m	140 Ø	§J	20	10	120	7.0	60	20mΔ	5.0Ø	2.0	30	150	60M§Δ			E	TO3	Ø
49#	M5A	800m	100		5.0	3.0	50	4.0	30	10mØ	5.0	5.0	10	50	500k	200m	700n			
50#	M5B	800m	100		5.0	3.0	100	4.0	60	10m	5.0	5.0	10	50	500k	200m	700n			
51#	M5C	800m	100		5.0	3.0	200	4.0	140	10m	5.0	5.0	10	50	500k	200m	700n			
52#	M5D	800m	100		5.0	3.0	300	4.0	200	10mØ	5.0	5.0	10	50	500k	200m	700n			
53#	M10A	800m	100		10	3.0	50	4.0	30	10m	5.0	10	10	50	500k	200m	700n			
54#	M10B	800m	100		10	3.0	100	4.0	60	10m	5.0	10	10	50	500k	200m	700n			
55#	M10C	800m	100		10	3.0	200	4.0	140	10m	5.0	10	10	50	500k	200m	700n			
56#	M10D	800m	100		10	3.0	300	4.0	200	10mØ	5.0	10	10	50	500k	200m	700n			
57	SE7030	800m		§J	400m		300	7.0	300	1.0u§♦	10Ø	50m	40	240 #	30MΔ			DPL	MD10e	CØ
58	130-04	833m#	120 Ø	§J	8.0	3.0	50	10	40	10m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	MT1	
59	130-06	833m#	120 Ø	§J	8.0	3.0	70	10	60	10m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	MT1	
60	130-08	833m#	120 Ø	§J	8.0	3.0	90	10	80	10m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	MT1	
61	130-10	833m#	120 Ø	§J	8.0	3.0	110	10	100	10m#	4.0Ø	5.0	15		1.0M§Δ	200m	1.6u	D	MT1	
62	2N2589	847m	85 Ø	§A	7.0	5.0	150	25	150	2.0m	4.0Ø	7.0	17	51					Δ MT18	
63	1726-0405	854m	150 Ø	§J	10	5.0	50	7.0	40 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO61	
64	1726-0410	854m	150 Ø	§J	10	5.0	50	7.0	40 Ø	4.0m#	4.0Ø	10	20 #		40M§Δ			EM	TO61	
65	1726-0605	854m	150 Ø	§J	10	5.0	70	7.0	60 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO61	
66	1726-0610	854m	150 Ø	§J	10	5.0	70	7.0	60 Ø	4.0m#	4.0Ø	10	20 #		40M§Δ			EM	TO61	
67	1726-0805	854m	150 Ø	§J	10	5.0	90	7.0	80 Ø	4.0m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO61	
68	1726-0810	854m	150 Ø	§J	10	5.0	90	7.0	80 Ø	10m#	4.0Ø	10	20 #		40M§Δ			EM	TO61	
69	1726-1005	854m	150 Ø	§J	10	5.0	110	7.0	100 Ø	10m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO61	
70	1726-1010	854m	150 Ø	§J	10	5.0	110	7.0	100 Ø	10m#	4.0Ø	10	20 #		40M§Δ			EM	TO61	
71	1726-1205	854m	150 Ø	§J	10	5.0	130	7.0	120 Ø	10m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO61	
72	1726-1210	854m	150 Ø	§J	10	5.0	130	7.0	120 Ø	10m#	4.0Ø	10	20 #		40M§Δ			EM	TO61	
73	1726-1405	854m	150 Ø	§J	10	5.0	150	7.0	140 Ø	10m#	4.0Ø	5.0	15 #		40M§Δ			EM	TO61	
74	1726-1410	854m	150 Ø	§J	10	5.0	150	7.0	140 Ø	10m#	4.0Ø	10	20 #		40M§Δ			EM	TO61	
75	1726-1605	854m	150 Ø	§J	10	5.0	170	7.0	160 Ø	10m#	4.0Ø	5.0	20 #		30M§Δ			EM	TO61	
76	1726-1610	854m	150 Ø	§J	10	5.0	170	7.0	160 Ø	10m#	4.0Ø	10	20 #		30M§Δ			EM	TO61	
77	1726-1805	854m	150 Ø	§J	10	5.0	190	7.0	180 Ø	10m#	4.0Ø	5.0	20 #		30M§Δ			EM	TO61	
78	1726-1810	854m	150 Ø	§J	10	5.0	190	7.0	180 Ø	10m#	4.0Ø	10	20 #		30M§Δ			EM	TO61	
79	1763-0415	854m	150 Ø	§J	25	10	50	7.0	40 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO3	
80	1763-0420	854m	150 Ø	§J	25	10	50	7.0	40 Ø	20m#	4.0Ø	20	20 #		40M§Δ			EM	TO3	
81	1763-0425	854m	150 Ø	§J	25	10	50	7.0	40 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO3	
82	1763-0615	854m	150 Ø	§J	25	10	70	7.0	60 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO3	
83	1763-0625	854m	150 Ø	§J	25	10	70	7.0	60 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO3	
84	1763-0815	854m	150 Ø	§J	25	10	90	7.0	80 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO3	
85	1763-0825	854m	150 Ø	§J	25	10	90	7.0	80 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO3	
86	1763-1015	854m	150 Ø	§J	25	10	110	7.0	100 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO3	
87	1763-1025	854m	150 Ø	§J	25	10	110	7.0	100 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO3	
88	1763-1215	854m	150 Ø	§J	25	10	130	7.0	120 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO3	
89	1763-1225	854m	150 Ø	§J	25	10	130	7.0	120 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO3	
90	1763-1415	854m	150 Ø	§J	25	10	150	7.0	140 Ø	20m#	4.0Ø	15	20 #		40M§Δ			EM	TO3	
91	1763-1425	854m	150 Ø	§J	30	10	150	7.0	140 Ø	20m#	4.0Ø	25	10 #		40M§Δ			EM	TO3	
92	1763-1615	854m	150 Ø	§J	30	10	170	7.0	160 Ø	20m#	4.0Ø	15	20 #		30M§Δ			EM	TO3	
93	1763-1625	854m	150 Ø	§J	30	10	170	7.0	160 Ø	20m#	4.0Ø	25	20 #		30M§Δ			EM	TO3	
94	1763-1815	854m	150 Ø	§J	30	10	190	7.0	180 Ø	20m#	4.0Ø	15	20 #		30M§Δ			EM	TO3	
95	1768-1615	854m	150 Ø	§J	30	10	170	7.0	160 Ø	20m#	4.0Ø	15	20 #		30M§Δ			EM	TO63	
96	1768-1625	854m	150 Ø	§J	30	10	170	7.0	160 Ø	20m#	4.0Ø	25	20 #		30M§Δ			EM	TO63	
97	1768-1815	854m	150 Ø	§J	30	10	190	7.0	180 Ø	20m#	4.0Ø	15	20 #		30M§Δ			EM	TO63	
98	3TE120	961m	120	§J	12		90	4.0	80	10uØ	7.0Ø	10	10	60	200M§	200m		PE	TO3	
99	2N1903	1.0	125 Ø	§J	10	5.0	140	5.0	100 §	25m	2.0Ø	10	8.0 #		50M§Δ	150m		PL	MT39	
100#	2SC81	1.0	125 Ø	$J	5.0	5.0 Ø	50	10	40 Ø	10m	10Ø	1.0	10 Ø	150 Ø	5.0M†	1.5		ME	MT3	
101#	2SC82	1.0	125 Ø	§J	5.0	5.0 Ø	100	10	80 Ø	10m	10Ø	1.0	10 Ø	150 Ø	5.0M†	1.5		ME	MT3	
102#	2SC83	1.0	125 Ø	§J	5.0	5.0 Ø	150	10	120 Ø	10m	10Ø	1.0	10 Ø	150 Ø	5.0M†	1.5		ME	MT3	
103	PT900	1.0	125	§J	15	5.0	80	4.0	50 §	40mØ	2.0Ø	10	10 Ø		50M†	250m	50n	MEΔ	MT3	
104	PT900-1	1.0		§J	10	5.0	80	5.0	50 §	250m	2.0Ø	10	10 Ø		30M†	.20	.05u	MEΔ	MT16	
105	STC1750	1.0	200 Ø	§J	15	4.5		10	200	2.0m	4.0	7.5	10	50		200m		ME	MT18	
106	USAF524ES080M	1.0 $		$J	20	5.0	160	8.0	100	7.5uØ	3.0Ø	15	27	65 #	20M§Δ	80m	500nØ	PLE	MT48	
107#	XT2A	1.0 §	50 Ø	♦J	5.0		200	5.0	135	10m	5.0	5.0	10	50	75k	100m▼		D	TO36	
108#	XT2B	1.0 §	50 Ø	♦J	5.0		300	5.0	200	10m	5.0	5.0	10	50	75k	100m▼		D	TO36	
109#	XT2C	1.0 §	50 Ø	♦J	5.0		400	5.0	265	10m	5.0	5.0	10	50	75k	100m▼		D	TO36	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1#	XT2D	1.0 §	50 Ø	♦J	5.0		500	5.0	350	10m	5.0	5.0	10	50	75k	100m▼		D	TO36	
2	153-05	1.3	200 Ø	§A	7.5	3.0	75	15	50		4.0Ø	1.5	15			870m	3.0uØ	FΔ	MT24	
3	153-07	1.3	200 Ø	§A	7.5	3.0	95	15	70		4.0Ø	1.5	15			870m	3.0uØ	FΔ	MT24	
4	153-09	1.3	200 Ø	§A	7.5	3.0	115	15	90		4.0Ø	1.5	15			870m	3.0uØ	FΔ	MT24	
5	154-05	1.3	200 Ø	§A	7.5	3.0	75	15	50		4.0Ø	1.5	25			830m	3.0u	FΔ	MT24	
6	154-07	1.3	200 Ø	§A	7.5	3.0	95	15	70		4.0Ø	1.5	25			830m	3.0u	FΔ	MT24	
7	154-09	1.3	200 Ø	§A	7.5	3.0	115	15	90		4.0Ø	1.5	25			830m	3.0u	FΔ	MT24	
8	DTS3704	1.3		§J	2.0	.50	200	5.0	200 Ø		5.0Ø	.50	20	80	115k	1.6			TO41	
9	DTS3704A	1.3		§J	2.0	.50	300	5.0	300 Ø		5.0Ø	.50	20	80	115k	1.6			TO41	
10	DTS3704B	1.3		§J	2.0	.50	400	5.0	335 Ø		5.0Ø	.50	20	80	115k	1.6			TO41	
11	DTS3705	1.3			3.5		200	5.0	200	.50m		1.0	25	75	110k	.80			TO3	
12	DTS3705A	1.3			3.5		300	5.0	300	.50m		1.0	25	75	110k	.80			TO3	
13	DTS3705B	1.3			3.5		400	5.0	400	.50m		1.0	25	75	110k	.80			TO3	
14	2N1016B/M	1.4 *	150 Ø	§J	7.5	5.0	100	25	100	1.0m	4.0Ø	5.0	10	35	30k	500m	6.0uØ	FΔ	MT1	
15	2N1016C/M	1.4 *	150 Ø	§J	7.5	5.0	150	25	150	1.0m	4.0Ø	5.0	10	35	30k	500m	6.0uØ	FΔ	MT1	
16	151-05	1.4 §	100 Ø	§J	6.0	3.0	100	25	50	10m	4.0Ø	1.5	11	46		830m	10uØ	FΔ	MT1	
17	151-07	1.4 §	100 Ø	§J	6.0	3.0	140	25	70	10m	4.0Ø	1.5	11	46		830m	10uØ	FΔ	MT1	
18	151-09	1.4 §	100 Ø	§J	6.0	3.0	180	25	90	10m	4.0Ø	1.5	11	46		830m	10uØ	FΔ	MT1	
19	152-05	1.4 §	100 Ø	§J	6.0	3.0	100	25	50	10m	4.0Ø	1.5	18	75		6.9	10uØ	FΔ	MT1	
20	152-07	1.4 §	100 Ø	§J	6.0	3.0	140	25	70	10m	4.0Ø	1.5	18	75		6.9	10uØ	FΔ	MT1	
21	152-09	1.4 §	100 Ø	§J	6.0	3.0	180	25	90	10m	4.0Ø	1.5	18	75		6.9	10uØ	FΔ	MT1	
22	AMF227	1.4 *	150 Ø	§C	7.5			.50	30 Ø		4.0Ø	2.0	10		20k	750m		ME	MT1	
23	AMF227A	1.4 *	150 Ø	§C	7.5			.50	60 Ø		4.0Ø	2.0	10		20k	750m		ME	MT1	
24	AMF227B	1.4 *	150 Ø	§C	7.5			.50	100 Ø		4.0Ø	2.0	10		20k	750m		ME	MT1	
25	AMF227C	1.4 *	150 Ø	§C	7.5			.50	150 Ø		4.0Ø	2.0	10		20k	750m		ME	MT1	
26	AMF228	1.4 *	150 Ø	§C	7.5			.50	30 Ø		4.0Ø	5.0	10		20k	500m		ME	MT1	
27	AMF228A	1.4 *	150 Ø	§C	7.5			.50	60 Ø		4.0Ø	5.0	10		20k	500m		ME	MT1	
28	AMF228B	1.4 *	150 Ø	§C	7.5			.50	100 Ø		4.0Ø	5.0	10		20k	500m		ME	MT1	
29	AMF228C	1.4 *	150 Ø	§C	7.5			.50	150 Ø		4.0Ø	5.0	10		20k	500m		ME	MT1	
30	AMF229	1.4 *	150 Ø	§C	4.0		30	.50	30 Ø		4.0Ø	1.0	10		20k	1.0		ME	MT1	
31	AMF229A	1.4 *	150 Ø	§C	4.0		60	.50	60 Ø		4.0Ø	1.0	10		20k	1.0		ME	MT1	
32	AMF229B	1.4 *	150 Ø	§C	4.0		100	.50	100 Ø		4.0Ø	1.0	10		20k	1.0		ME	MT1	
33	AMF229C	1.4 *	150 Ø	§C	4.0		150	.50	150 Ø		4.0Ø	1.0	10		20k	1.0		ME	MT1	
34	BSC1015	1.4 *	150 Ø	§J	7.5	5.0		10	30 #		4.0Ø	2.0	10		20k	750m		DM	MT1	
35	BSC1015A	1.4 *	150 Ø	§J	7.5	5.0		10	60 #		4.0Ø	2.0	10		20k	750m		DM	MT1	
36	BSC1015B	1.4 *	150 Ø	§J	7.5	5.0		10	100 #		4.0Ø	2.0	10		20k	750m		DM	MT1	
37	BSC1016	1.4 *	150 Ø	§J	7.5	5.0		10	30 #		4.0Ø	5.0	10		20k	500m		DM	MT1	
38	BSC1016A	1.4 *	150 Ø	§J	7.5	5.0		10	60 #		4.0Ø	5.0	10		20k	500m		DM	MT1	
39	BSC1016B	1.4 *	150 Ø	§J	7.5	5.0		10	100 #		4.0Ø	5.0	10		20k	500m		DM	MT1	
40	SEC1477	1.4		§			50	9.0	50 §			.50				2.0			MT1	
41	SEC1478	1.4		§			100	9.0	100 §			.50				2.0			MT1	
42	SEC1479	1.4		§			50	9.0	50 §			2.0				2.0			MT1	
43	SEC1480	1.4		§			100	9.0	100 §			2.0				2.0			MT1	
44#	STX5/3010	1.4 Ø		$	5.0		30	2.0	30	5.0m	15	5.0	10	25	10M†					
45#	STX5/3025	1.4 Ø		$	5.0		30	2.0	30	5.0m	15	5.0	25		10M†					
46#	STX5/5010	1.4 Ø		$	5.0		50	2.0	50	5.0mØ	15	5.0	10	25	10M†					
47#	STX5/5025	1.4 Ø		$	5.0		50	2.0	50	5.0m	15	5.0	25		10M†					
48#	STX5/6010	1.4 Ø		$	5.0		60	2.0	60	5.0m	15	5.0	10	25	10M†					
49#	STX5/6025	1.4 Ø		$	5.0		60	2.0	60	5.0m	15	5.0	25		10M†					
50#	STX5/7010	1.4 Ø		$	5.0		70	2.0	70	5.0m	15	5.0	10	25	10M†					
51#	STX5/7025	1.4 Ø		$	5.0		70	2.0	70	5.0m	15	5.0	25		10M†					
52	2N1421	1.6	30 Ø	§S	3.0	500m	60	10	60 Ø	10m	5.0Ø	1.0	20	80	10M§Δ	3.0			MT10	
53	2N1422	1.6	30 Ø	§S	3.0	500m	60	10	60 Ø	10m	5.0Ø	1.0	20	80	10M§Δ	2.0			TO3	Ø
54#	L10A	1.6	200		10	10	50	4.0	30	10m	6.0	10	10	50	500k	.10	.80			
55#	L10B	1.6	200		10	10	100	4.0	60	10m	6.0	10	10	50	500k	.10	.80			
56#	L10C	1.6	200		10	10	200	4.0	140	10m	6.0	10	10	50	500k	.10	.80			
57#	L10D	1.6	200		10	10	300	4.0	200	10mØ	6.0	10	10	50	500k	.10	.80			
58#	L20A	1.6	200		20	10	100	4.0	30	10m	6.0	20	10	50	500k	.10	.80			
59#	L20B	1.6	200		20	10	200	4.0	60	10m	6.0	20	10	50	500k	.10	.80			
60#	L20C	1.6	200		20	10	300	4.0	140	10mØ	6.0	20	10	50	500k	.10	.80			
61#	L20D	1.6	200		20	10	400	4.0	200	10m	6.0	20	10	50	500k	.10	.80			
62#	L30A	1.6	200		30	10	50	4.0	30	10m	6.0	30	10	50	500k	.10	.80			
63#	L30B	1.6	200		30	10	100	4.0	60	10m	6.0	30	10	50	500k	.10	.80			
64#	L30C	1.6	200		30	10	200	4.0	140	10m	6.0	30	10	50	500k	.10	.80			
65#	L30D	1.6	200		30	10	300	4.0	200	10mØ	6.0	30	10	50	500k	.10	.80			
66#	SDD320	1.6	20 Ø	§J	2.0		40	6.0	30	500u	15Ø	50m	20 †	35 Ø	30M§Δ	6.0			TO36	
67	2N2743	2.0 §	200 Ø	§S	20	7.5	250	15	250		4.0Ø	10	10		14k	150m	6.0uØ	Δ	MT1	
68	2N2744	2.0 §	200 Ø	§S	20	7.5	300	15	300		4.0Ø	10	10		14k	150m	6.0uØ	Δ	MT1	
69	2N2749	2.0 §	200 Ø	§S	20	7.5	250	15	250		4.0Ø	15	10		14k	100m	6.0uØ	Δ	MT1	
70	2N2750	2.0 §	200 Ø	§S	20	7.5	300	15	300		4.0Ø	15	10		14k	100m	6.0uØ	Δ	MT1	
71	2N2755	2.0 §	200 Ø	§S	20	7.5	250	15	250		4.0Ø	20	10		16k	75m	7.0uØ	Δ	MT1	
72	2N2756	2.0 §	200 Ø	§S	20	7.5	300	15	300		4.0Ø	20	10		16k	75m	7.0uØ	Δ	MT1	
73	2N2762	2.0 §	200 Ø	§S	30	7.5	300	15	300		4.0Ø	10	10		14k	150m	6.0uØ	Δ	MT33	
74	2N2767	2.0 §	200 Ø	§S	30	7.5	250	15	250		4.0Ø	15	10		14k	100m	6.0uØ	Δ	MT33	
75	2N2768	2.0 §	200 Ø	§S	30	7.5	300	15	300		4.0Ø	15	10		14k	100m	6.0uØ	Δ	MT33	
76	2N2773	2.0 §	200 Ø	§S	30	7.5	250	15	250		4.0Ø	20	10		16k	75m	7.0uØ	Δ	MT33	
77	2N2774	2.0 §	200 Ø	§S	30	7.5	300	15	300		4.0Ø	20	10		16k	75m	7.0uØ	Δ	MT33	
78	2N2779	2.0 §	200 Ø	§S	30	7.5	250	15	250		4.0Ø	25	10			60m	8.0uØ	Δ	MT33	
79	2N2780	2.0 §	200 Ø	§S	30	7.5	300	15	300		4.0Ø	25	10			60m	8.0uØ	Δ	MT33	
80	163-05	2.0	200 Ø	§J	20	7.5	65	15	50		4.0Ø	5.0	15			220m	6.0u	FΔ	MT33	
81	163-07	2.0	200 Ø	§J	20	7.5	85	15	70		4.0Ø	5.0	15			220m	6.0u	FΔ	MT33	
82	163-09	2.0	200 Ø	§J	20	7.5	105	15	90		4.0Ø	5.0	15			220m	6.0u	FΔ	MT33	
83	164-05	2.0	200 Ø	§J	20	7.5	65	15	50		4.0Ø	5.0	25			200m	6.0u	FΔ	MT33	
84	164-07	2.0	200 Ø	§J	20	7.5	85	15	70	4.0u#	5.0	25				200m	6.0u	FΔ	MT33	
85	164-09	2.0	200 Ø	§J	20	7.5	105	15	90	4.0u#	5.0	25				200m	6.0u	FΔ	MT33	
86	D6C	2.0 $	150 Ø	§J	30		150	15	80		3.0Ø	15	30			50m		D	TO63	AØ
87	TIP041†	2.0	2.5	§J	2.5	1.0	400	5.0	300	2.0m§	4.0Ø	1.0	20	100 #	3.0M§Δ	500m	900nØ	DM	TP3	
88	2N1821†	2.2	250 Ø	§J	15	10	300	15	300 #	30m#	4.0Ø	15	10				20uØ		TO49	
89	2N1827†	2.2	250 Ø	§J	20	10	250	15	250 #	30m#	4.0Ø	20	10				20uØ		TO49	
90	2N1828†	2.2	250 Ø	§J	20	10	300	15	300 #	30m#	4.0Ø	20	10				20uØ		TO49	
91	2N1834†	2.2	250 Ø	§J	25	10	250	15	250 #	30m#	4.0Ø	25	10				20uØ		TO49	
92	2N1835†	2.2	250 Ø	§J	25	10	300	15	300 #	30m#	4.0Ø	25	10				20uØ		TO49	
93	2N2121†	2.2	250 Ø	§J	15	10	300	15	300 #	30m#	4.0Ø	15	10				20uØ		TO83	
94	2N2127†	2.2	250 Ø	§J	20	10	250	15	250 #	30m#	4.0Ø	20	10				20uØ		TO83	
95	2N2128†	2.2	250 Ø	§J	20	10	300	15	300 #	30m#	4.0Ø	20	10				20uØ		TO83	
96	2N2134†	2.2	250 Ø	§J	25	10	250	15	250 #	30m#	4.0Ø	25	10				20uØ		TO83	
97	2N2135†	2.2	250 Ø	§J	25	10	300	15	300 #	30m#	4.0Ø	25	10				20uØ		TO83	
98	2N1423	3.5	60 Ø	§S	3.0	500m	60	10	60 Ø	10m	10Ø	2.0	20	80	10M§Δ	2.5			TO3	Ø
99	2N1424	3.5	60 Ø	§S	3.0	500m	60	10	60 Ø	10m	10Ø	2.0	20	80	10M§Δ	2.5			MT10	
100	1401-1220†	5.0 §	625 Ø	§J	250	35	130	10	120 Ø	2.0m#	4.0Ø	200	10 #		500k§Δ			D	MT14a	C
101	1401-1225†	5.0 §	625 Ø	§J	250	35	130	10	120 Ø	2.0m#	4.0Ø	250	10 #		500k§Δ			D	MT14a	C
102	1401-1415†	5.0 §	625 Ø	§J	250	35	150	10	140 Ø	2.0m#	4.0Ø	150	10 #		500k§Δ			D	TO93	
103	1401-1420†	5.0 §	625 Ø	§J	250	35	150	10	140 Ø	2.0m#	4.0Ø	200	10 #		500k§Δ			D	MT14a	C
104	1401-1425†	5.0 §	625 Ø	§J	250	35	150	10	140 Ø	2.0m#	4.0Ø	250	10 #		500k§Δ			D	MT14a	C

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] fab (Hz)	[2] MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	L C E O A D D E
1	NS1116		1.0n	5.0n		4.0n	500m		500mØ					N	Si	175J	TO18	Ø
2	A197		5.0n	15nØ		20nØ	200m					16p§☑		N§☑	Si	150J	TO106	DD
3	A198		5.0n	15nØ		35 Ø	200m					16p§☑		N§☑	Si	150J	TO106	DD
4	A199		5.0n	15nØ		50 Ø	200m					16p§☑		N§☑	Si	150J	TO106	DD
5	D26B1		12nØ		10nØ	15nØ	90m	1.0 Ø	10mØ	60 #☑		4.0p☑		N-EP	Si	100J	u40b	
6	D26B2		12nØ		13n	18nØ	90m	1.0 Ø	10mØ	120 #☑		4.0p☑		N-EP	Si	100J	u40b	
7	2N2967		15nØ		6.0n	15nØ	300m	1.0 Ø	30m	15 Δ	2.0	3.0p		N	Si	200J	TO18	Ø
8	V220		15nØ	30n§			300m	100mØ	10mØ	90 Δ	285			N-PE	Si	200J	ZA18	
9	V221		15nØ	30n§			300m	100mØ	10mØ	130 Δ	285			N-PE	Si	200J	ZA18	
10	V222		15nØ	30n§			300m	100mØ	10mØ	160 Δ	285			N-PE	Si	200J	ZA18	
11#	MD501		18n		12n	10n	60m	500mØ	10mØ	20 Δ		5.0p☑		P-MD	Ge		TO1	
12#	MD501B		18n		12n	10n	60m	500mØ	10mØ	20 Δ		3.0p☑		P-MD	Ge		TO1	
13	2N2100A		20n		50n	40n	300m	1.0 Ø	200mØ	30 Δ		20p☑		P	Ge	100S	TO9	
14	2N847		32nØ		25n	33n	200m				1.5			N	Si	175S		
15	2N848		32nØ		25n	33n	200m				1.5			N	Si	175S		
16	2N1763		32nØ		25n	33n	300m				1.5			N	Si	175S		
17	2N1764		32nØ		25n	33n	300m				1.5			N	Si	175S		
18	MM2102		50n	20n	30n	50n	800mØ	10	2.0m	1.0 §	200 §	4.5p§		N-MOS	Si	200J	R38y	
19	MM2103		50n	30n	25n	50n	800mØ	10	2.0m	1.0 §	600 §	6.5p§		P-MOS	Si	200J	R38y	
20	2N781		60nØ		20n	50n	150m	.22 Ø	10mØ	25 Δ	16			P	Ge	100J	TO18	AØ
21	2N1961		75nØ		35n	75n	150m	.25 Ø	10mØ	20 Δ	20			P	Ge	100J	TO46	AØ
22#	MDS37		75nØ		120n	100n	150m	300mØ	40mØ	20 Δ				P-MD	Ge		TO18	
23	D4D22		100n		100n	100n	150m	5.0 Ø	10mØ	120	150	4.0p☑		N-GD	Si	150J	R133b	A
24	3N21		200n		500nØ		100m			2.5				P	Ge	50A		
25#	ASY63		1500n†§				200m	.10 Ø	3.0mØ	100 †☑				P	Ge	75J	R47	
26	2N1821		20uØ		25uØ		250	4.0 Ø	15m	10 Δ				N	Si	175J	TO49	
27	2N1827		20uØ		25uØ		250	4.0 Ø	20m	10 Δ				N	Si	175J	TO49	
28	2N1828		20uØ		25uØ		250	4.0 Ø	20m	10 Δ				N	Si	175J	TO49	
29	2N1834		20uØ		25uØ		250	4.0 Ø	25m	10 Δ				N	Si	175J	TO49	
30	2N1835		20uØ		25uØ		250	4.0 Ø	25m	10 Δ				N	Si	175J	TO49	
31	2N2121		20uØ		25uØ		250	4.0 Ø	15m	10 Δ				N	Si	175J	TO83	
32	2N2127		20uØ		25uØ		250	4.0 Ø	20m	10 Δ				N	Si	175J	TO83	
33	2N2128		20uØ		25uØ		250	4.0 Ø	20m	10 Δ				N	Si	175J	TO83	
34	2N2134		20uØ		25uØ		250	4.0 Ø	25m	10 Δ				N	Si	175J	TO83	
35	2N2135		20uØ		25uØ		250	4.0 Ø	25m	10 Δ				N	Si	175J	TO83	
36#	ASZ16†	.25M	20u		15u	40u		1.0	1.0m	45 Δ				P-A	Ge	90J	TO3	
37	DTG1110B	450k§	6000n		1.6u	1.4u	105	2.0	4.0	25 Δ	160m			P-D	Ge	110	TO3	
38	1441-0815	500k§Δ	500nØ			10uØ	350m♦Ø	4.0 Ø	50uØ	10 #				N-D	Si	200J	TO114	
39	1401-1220	500k§Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	200uØ	10 #				N-D	Si	200J	MT14a	C
40	1401-1225	500k§Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	250uØ	10 #				N-D	Si	200J	MT14a	C
41	1401-1415	500k§Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	150uØ	10 #				N-D	Si	200J	MT14a	C
42	1401-1420	500k§Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	200uØ	10 #				N-D	Si	200J	MT14a	C
43	1401-1425	500k§Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	250uØ	10 #				N-D	Si	200J	MT14a	C
44	1441-0415	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	50uØ	10 #				N-D	Si	200J	TO114	
45	1441-0420	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	75uØ	10 #				N-D	Si	200J	TO114	
46	1441-0425	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	100uØ	10 #				N-D	Si	200J	TO114	
47	1441-0615	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	50uØ	10 #				N-D	Si	200J	TO114	
48	1441-0620	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	75uØ	10 #				N-D	Si	200J	TO114	
49	1441-0625	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	100uØ	10 #				N-D	Si	200J	TO114	
50	1441-0820	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	75uØ	10 #				N-D	Si	200J	TO114	
51	1441-0825	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	100uØ	10 #				N-D	Si	200J	TO114	
52	1441-1015	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	50uØ	10 #				N-D	Si	200J	TO114	
53	1441-1020	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	75uØ	10 #				N-D	Si	200J	TO114	
54	1441-1025	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	100uØ	10 #				N-D	Si	200J	TO114	
55	1441-1215	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	50uØ	10 #				N-D	Si	200J	TO114	
56	1441-1220	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	75uØ	10 #				N-D	Si	200J	TO114	
57	1441-1225	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	100uØ	10 #				N-D	Si	200J	TO114	
58	1441-1415	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	50uØ	10 #				N-D	Si	200J	TO114	
59	1441-1420	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	75uØ	10 #				N-D	Si	200J	TO114	
60	1441-1425	500k§Δ	5000nØ			10uØ	350m♦Ø	4.0 Ø	100uØ	10 #				N-D	Si	200J	TO114	
61	ST66	.60M	1300n	160n	2.5u	2.6u	80	4.0 Ø	3.0m	10	1.0			N-D	Si	150J	TO3	
62	ST610	.60M	1300n	160n	2.5u	2.6u	80	4.0 Ø	3.0m	10	1.0			N-D	Si	150J	TO3	
63	ST615	.60M	1300n	160n	2.5u	2.6u	80	4.0 Ø	3.0m	10	1.0			N-D	Si	150J	TO3	
64	DTG1210A	700k§	6000n		1.6u	1.4u	105	2.0	1.0	35	160m			P-D	Ge	110	TO3	
65#	AC155	1.20M§			3.5u		200m*	0.0	10mØ	68 ☑		100p☑		P-A	Ge	85J	TO1	
66#	ASY14	1.50M	2800nØ		1.5u	2.0u	75m*	700mØ	80mØ	25 †Δ		25p		P	Ge	75	R43	
67#	ASY82	1.50M§	3000n▼		3.5u		200m*	1.0 Ø	300mØ	35 Δ	1.6	100p☑		P-A	Ge	85J	TO1	
68#	ASY84	1.50M§	3000n▼		3.5u		200m*	1.0 Ø	300mØ	35 Δ	1.6	100p☑		P-A	Ge	85J	TO1	
69#	2SB453	1.50M	3300n		2.0u	2.5u	250m	1.0 Ø	100mØ	120	6.5		70n†	P-A	Ge	85J	RO107a	
70#	2SB454	1.50M	3300n		2.0u	2.5u	250m	1.0 Ø	100mØ	120	6.5		70n†	P-A	Ge	85J	RO107a	
71#	2SB455	1.50M	3300n		2.0u	2.5u	250m	1.0 Ø	100mØ	120	6.5		70n†	P-A	Ge	85J	RO107a	
72#	AC156	1.80M§			3.5u		200m*	0.0	10mØ	114 ☑		100p☑		P-A	Ge	85J	TO1	
73#	AC154	2.00M§			3.5u		200m*	0.0	10mØ	225 ☑		100p☑		P-A	Ge	85J	TO1	
74#	AC165	2.00M§			4.0u		200m*	0.0	10mØ	280 ☑		100p☑		P-A	Ge	85J	TO1	
75#	AC166	2.00M§			3.5u		200m*	0.0	10mØ	290 ☑		100p☑		P-A	Ge	85J	TO1	
76#	AC167	2.00M§			3.5u		200m*	0.0	10mØ	235 ☑		100p☑		P-A	Ge	85J	TO1	
77#	AC177	2.00M§			3.5u		200m*	0.0	10mØ	235 ☑		100p☑		P-A	Ge	85J	TO1	
78	2N159	2.00MΔ	200n			200n	80m							P-PC	Ge	85	OV4	
79#	ASY86	2.00M§	1600n▼		2.5u		200m*	1.0 Ø	300mØ	35 Δ	2.0	100p☑		N-A	Ge	85J	TO1	
80#	ASY88	2.00M§	1600n▼		2.5u		200m*	1.0 Ø	300mØ	35 Δ	2.0	100p☑		N-A	Ge	85J	TO1	
81#	2G524	2.00M	3000n	600n	1.0u	1.6u		225	1.0mØ	20	35	27p		P-A	Ge	85J	TO5	
82#	2G1024	2.00M	3000n	600n	1.2u	1.6u	225m	1.0 Ø	20mØ	35		27p		P-A	Ge	85J	TO5	
83#	AC157	2.50M§			3.0u		200m*	0.0	10mØ	190 ☑		100p☑		N-A	Ge	85J	TO1	
84#	AC168	2.50M§			3.5u		200m*	0.0	10mØ	235 ☑		100p☑		N-A	Ge	85J	TO1	
85	2N817	2.50MΔ	700n†		800n†	500n†	75m	1.0 Ø	50mØ	25	5.0	9.0p	180n	N-FA	Ge	85J	u8	
86	2N818	2.50MΔ	700n†		800n†	500n†	75m	1.0 Ø	50mØ	25	5.0	9.0p	180n	N-FA	Ge	85J	u9	
87#	ASY83	2.50M§	1500n▼		3.5u		200m*	1.0 Ø	300mØ	85 Δ	1.6	100p☑		P-A	Ge	85J	TO1	
88#	ASY85	2.50M§	1500n▼		3.5u		200m*	1.0 Ø	300mØ	85 Δ	1.6	100p☑		P-A	Ge	85J		
89#	2G525	2.50M	2000n	500n	1.2u	1.5u		225	1.0mØ	20	52	27p		P-A	Ge	85J	TO5	
90#	2G1025	2.50M	2000n	550n	1.3u	1.5u	225m	1.0 Ø	20mØ	52		27p		P-A	Ge	85J	TO5	
91	TIP04	3.00M§Δ	900pØ			8.0uØ	65 Ø	4.0 Ø	20mØ	10 #Δ		150p☑		N-DM	Si	200S	TO3	
92#	2G526	3.00M	1500n	450n	1.4u	1.4u		225	1.0mØ	20	73	27p		P-A	Ge	85J	TO5	
93#	2G1026	3.00M	1540n	450n	1.4u	1.4u	225m	1.0 Ø	20mØ	73		27p		P-A	Ge	85J	TO5	
94#	2G527	3.30M	1400n	420n	1.5u	1.1u		225	1.0mØ	20	95	27p		P-A	Ge	85J	TO5	
95#	2G1027	3.30M	1440n	420n	1.4u	1.3u	225m	1.0 Ø	20mØ	95		27p		P-A	Ge	85J	TO5	
96#	SA70	4.00M§Δ					150m	3.0 Ø	1.0m	20 †Δ				P-A	Si		TO1	
97#	2SA211	4.00M	400n		400n	200n	120m	.30	100m	120 ☑		20p		P	Ge	85	TO5	
98	CK25	4.00M	500nØ†		300n†	450n	80m	350mØ	1.0mΔ	30	3.2	14p	50n†	P-FA	Ge	85J	u11	
99	CK25A	4.00M	500nØ†		300n†	350n†	80m	350mØ	1.0mΔ	30	3.2	14p	50n†	P-FA	Ge	85J	u12	
100#	ASY87	4.00M§	800n▼		2.5u		200m*	1.0 Ø	300mØ	85 Δ	2.0	100p☑		N-A	Ge	85J	TO1	
101#	ASY89	4.00M§	800n▼		2.5u		200m*	1.0 Ø	300mØ	85 Δ	2.0	100p☑		N-A	Ge	85J	TO1	
102#	2SA325	5.00M	140n		3.0u	1.0u	80m	1.0 Ø	80mØ	60		13p		P-A	Ge	85J	TO1	
103	2N819	5.00MΔ	500n†		700n†	300n†	75m	1.0 Ø	50mØ	45	5.0	9.0p	220n	N-FA	Ge	85J	u8	
104	2N820	5.00MΔ	500n†		700n†	300n†	75m	1.0 Ø	50mØ	45	5.0	9.0p	220n	N-FA	Ge	85J	u9	
105	40403	5.00M§Δ	650n	200n	800n	400n	200m	1.0 Ø	10mØ	30 Δ	4.0	20p☑		P-A	Ge	85	TO5	§
106	2N1942	5.00MΔ	800n	800nØ	1.0u	1.0uØ	200m	.20 Ø	200mØ	20 †Δ#		20p☑		P	Ge	100J	TO5	
107	2N1664	5.00M	2000n	800n	1.8u	1.5u		6.0 Ø	1.0m	120 #☑		25p☑		P	Ge	100J	TO5	
108#	NKT103	5.00M	2000n		2.0u	750n	75m		500mØ	80		20p	4.4n	P-A	Ge	75J	TO22	
109#	NKT106	5.00M	2000n		2.0u	750n	75m		25mØ	120		20p	4.4n	P-A	Ge	75J	TO22	
110#	NKT109	5.00M	2000n		2.0u	750n	75m		1.0mØ	80		20p	4.4n	P-A	Ge	75J	TO22	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1#	NKT123	5.00M	2000n		2.0u	750n	75m		500mØ	80		20p	4.4n	P-A	Ge	75J	TO5	
2#	NKT129	5.00M	2000n		2.0u	750n	75m		1.0mØ	80		20p	4.4n	P-A	Ge	75J	TO5	
3#	2G395	5.50M	1200n	260n	650n	650n	150m	1.0 Ø	10mØ	150 Ø	4.0	12p	1.6n	P-A	Ge	85J	TO5	
4	2N1173	6.00M		500nØ	1.5uØ		250m	1.0 Ø	10m	92	4.0	25pØ		N-A	Ge	100S	TO29	
5	2N801	6.00M	500nt		300nt	350nt	75m	250mØ	1.0mΔ	40	3.2	14p	55n	P-FA	Ge	85J	u8	
6	2N802	6.00M	500nt		300nt	350nt	75m	250mØ	1.0mΔ	40	3.2	14p	55n	P-FA	Ge	85J	u9	
7	CK26	6.00M	500nØt		300nt	350nt	80m	250mØ	1.0mΔ	40	3.2	14p	55nt	P-FA	Ge	85J	u11	
8	CK26A	6.00M	500nØt		300nt	350nt	80m	350mØ	10mΔ	55	3.2	14p	55nt	P-FA	Ge	85J	u12	
9#	2SA458	6.0M	1000n		700n	700n	150m	1.0 Ø	10mØ	60				P-A	Ge	85J	RO107b	
10#	2SA459	6.0M	1000n		700n	700n	150m	1.0 Ø	10mØ	120				P-A	Ge	85J	RO107b	
11	2N1174	7.00M		500nØ	1.5uØ		250m	1.0 Ø	10m	110	4.0	25pØ		N-A	Ge	100S	TO29	
12	JAN2N496	7.20M§Δ	175n§				150m	500mØ	15mØ	6.0 Δ	30	12pØ	5.0n	P	Si	140S	TO1	
13	2N1606	7.20M§Δ	300nØ		300nØ		100m	.50 Ø	15mØ	6.0 Δ				P	Si	140S	TO5	
14	2N825	8.00M	400nt	190nt	600nt	310nt	75m	1.0 Ø	10m	90	4.0	12p	140nt	P-FA	Ge	85J	u8	
15	2N826	8.00M	400nt	190nt	600nt	310nt	75m	1.0 Ø	10m	90	4.0	12p	140nt	P-FA	Ge	85J	u9	
16	2N123/5	8.00M	450n				150m	5.0	1.0m	65 †		15p		P-A	Ge	85S	TO5	
17	2N815	8.00M	600nt		400nt	400nt	75m	750mØ	200mØ	80		14p		N-FA	Ge	85J	u8	
18	2N816	8.00M	600nt		400nt	400nt	75m	750mØ	200mØ	80		14p		N-FA	Ge	85J	u9	
19#	2G396	8.00M	750n	230n	650n	450n	150m	1.0 Ø	10mØ	150 Ø	4.0	12p	1.7n	P-A	Ge	85J	TO5	
20#	2G604	9.20M	380n				150m	1.0 Ø	10m	70		12p		P-A	Ge	100S	TO5	
21#	2G605	9.40M	350nt	160nt	440nt	280nt	150m	.25 Ø	4.5mØ	75		12p		P-A	Ge	85J	TO5	
22#	2G603	9.40M	400n	180n	410n	280n	150m	1.0 Ø	10mØ	150 Ø		12p		P-A	Ge	85J	TO5	
23#	2SA326	10.0M	85n		2.3u	700n	80m	1.0 Ø	80mØ	60		13p		P-A	Ge	85J	TO1	
24#	NKT735	10.0M	220n		500n	600n	150m	350mØ	3.0 Ø	20 Δ	20	20pØ		N	Ge	85J	TO5	A
25	2N1607	10.0M§Δ	265nØ		265nØ		100m	.50 Ø	15mØ	6.0 Δ				P	Si	140S	TO5	
26	2N822	10.0MΔ	300nt		600nt	200nt	75m	1.0 Ø	50m	70	5.0	9.0p	300nt	N-FA	Ge	85J	u9	
27#	2SC86	10.0M	300n		400n	200n	120m	.30 Ø	200mØ	60	1.5	20pØ		N-A	Ge	85J	TO1	
28#	2SC85	10.0M	500n		400n	300n	120m	.30 Ø	200mØ	30	1.5	20pØ		N-A	Ge	85J	TO1	
29#	2SC84	10.0M	600n		400n	300n	120m	.50 Ø	20mØ	40	1.5	20pØ		N-A	Ge	85J	TO1	
30	2N5049	10.0M§Ø	1000n		2.5u	1.0u	100	4.0 Ø	100uØ	15 Δ	250m			N	Si	200S	TO61	AØ
31#	NKT102	10.0M	1000n		2.0u	600n	75m		500mØ	80		20p	4.4n	P-A	Ge	75J	TO22	
32#	NKT105	10.0M	1000n		2.0u	600n	75m		25mØ	120		20p	4.4n	P-A	Ge	75J	TO22	
33#	NKT108	10.0M	1000n		2.0u	600n	75m		1.0mØ	80		20p	4.4n	P-A	Ge	75J	TO22	
34#	NKT122	10.0M	1000n		2.0u	600n	75m		500mØ	80		20p	4.4n	P-A	Ge	75J	TO5	
35#	NKT128	10.0M	1000n		2.0u	600n	75m		1.0mØ	80		20p	4.4n	P-A	Ge	75J	TO5	
36	2N803	11.0M	400nt		300nt	350nt	75m	250mØ	1.0mΔ	55	2.1	14p	60nt	P-FA	Ge	85J	u8	
37	2N804	11.0M	400nt		300nt	350nt	75m	250mØ	1.0mΔ	55	2.1	14p	60nt	P-FA	Ge	85J	u9	
38	CK27	11.0M	400nØt		300nt	350nt	80m	250mØ	1.0mΔ	55	2.1	14p	60nt	P-FA	Ge	85J	u11	
39	CK27A	11.0M	400nØt		300nt	350nt	80m	250mØ	1.0mΔ	55	2.1	14p	60nt	P-FA	Ge	85J	u11	
40	2N799	12.0M		1.4u▼			75m	150mØ	400uΔ	60	12	12p		P-FA	Ge	85J	u2	
41	2N800	12.0M		1.4u▼			75m	150mØ	400uΔ	60	12	12p		P-FA	Ge	85J	u2	
42	2N823	12.0M		1.4u▼			75m	250mØ	20m	40 Δ	8.3	12p		N-FA	Ge	85J	u8	
43	2N824	12.0M		1.4u▼			70m	250mØ	20m	40 Δ	8.3	12p		N-FA	Ge	85J	u9	
44#	ASZ10	12.0MΔ	300n		400n	1.4u	150m	.55 Ø	200mØ	20 †Δ	1.2	4.0pØ		P-D	Ge	75J	X12	
45#	ASZ30	12.0MΔ	300n		400n	1.4u	30m	.55 Ø	200mØ	20 †Δ	1.2	4.0pØ		P-D	Ge	75J	R76	
46#	2G397	12.0M	450n	200n	650n	350n	150m	1.0 Ø	10mØ	150 Ø	4.0	12p	1.9n	P-A	Ge	85J	TO5	
47	CK4	12.0M	1400n▼				80m	150mØ	400uΔ	60	8.3	12p		P-FA	Ge	85J	u11	
48	CK4A	12.0M	1400n▼				80m	150mØ	400uΔ	60	8.3	12p		P-FA	Ge	85J	u12	
49	2N1103	12.5M§Δ	50nØ		20n	80n	125m	3.0 Ø	10mØ	30 Δ		3.0pØ		N	Si	150S	TO5	
50	2N805	17.0M	400nt		300nt	300nt	75m	250mØ	1.0mΔ	80	1.6	14p	70nt	P-FA	Ge	85J	u8	
51	2N806	17.0M	400nt		300nt	300nt	75m	250mØ	1.0mΔ	80	1.6	14p	70nt	P-FA	Ge	85J	u9	
52	CK28	17.0M	400nØt		300nt	300nt	80m	.25 Ø	1.0mΔ	80	1.6	14p	70nt	P-FA			u11	
53	CK28A	17.0M	400nØt		300nt	300nt	80m	250mØ	1.0mΔ	80	1.6	14p	70nt	P-FA	Ge	85J	u12	
54#	NKT101	18.0M	500n		2.0u	300n	75m		500mØ	80		20p	4.4n	P-A	Ge	75J	TO22	
55#	NKT104	18.0M	500n		2.0u	300n	75m		25mØ	120		20p	4.4n	P-A	Ge	75J	TO22	
56#	NKT107	18.0M	500n		2.0u	300n	75m		1.0mØ	80		20p	4.4n	P-A	Ge	75J	TO22	
57#	NKT121	18.0M	500n		2.0u	300n	75m		500mØ	80		20p	4.4n	P-A	Ge	75J	TO5	
58#	NKT127	18.0M	500n		2.0u	300n	75m		1.0mØ	80		20p	4.4n	P-A	Ge	75J	TO5	
59	2N1065	20.0MΔ	100n				120m	1.0 Ø	.50mΔ	50		7.0pØ		P-D	Ge	85S	TO9	
60	RT730M	20.0M	110nt				350m	10 Ø	150mØ	40	10	35pØ		N-PL	Si	175J	TO46	
61	RT731M	20.0M	110nt				350m	10 Ø	150mØ	80	10	35pØ		N-PL	Si	175J	TO46	
62	TN304	20.0M§	150n	50n	700n	200n	30 Ø	1.0 Ø	50mØ	25	250m	125pØ		N-PE	Si	200A	MT47	
63	2N2161	20.0M	350nØ	350n	350n	350nØ	200m	5.0 Ø	100uØ	30 Δ		3.0p		N	Si	175S	TO5	
64	USAF525ES085M	20.0M§Δ	500nØ		1.5u	400n	2.0m	3.0 Ø	15mØ	27 Δ	12	900pØ		N-PE	Si	200S	X20	
65#	2SC166	20.0M	580n		2.0u	650n	200m	12	3.0m	30 Δ		18p		N	Si	150J	TO18	
66#	2SC167	20.0M	580n		2.0u	650n	200m	12	3.0m	30 Δ		18p		N	Si	150J	TO18	
67	2N3601	20.0M§Δ	1000n	300n	2.0u	700n	500m	1.5 Ø	1.0 Ø	180 Ø	330m				Ge	100J	R81	Ø
68	2N3602	20.0M§Δ	1000n	300n	2.0u	700n	750m	1.5 Ø	1.0 Ø	180 Ø	330m			P-DA	Ge	100J	MT55	ØØ
69	2N3603	20.0M§Δ	1000n	300n	2.0u	700n	500m	1.5 Ø	1.0 Ø	180 Ø	330m				Ge	100J	R81	ØØ
70	2N3604	20.0M§Δ	1000n	300n	2.0u	700n	750m	1.5 Ø	1.0 Ø	180 Ø	330m			P-DA	Ge	100J	MT55	Ø
71	USAF501ES001M	20.0M§Δ	1000nØ		1.0u	250n	250m	5.0 Ø	200uΔ	20 Δ	150	4.0pØ		N-GD	Si	150J	TO39	
72#	DAT1A	25.0M§Δ				75nØ	20m	3.0 Ø	500uØ	25 †Δ		6.0pØ		P-MA	Ge		TO1	
73#	DAT2	25.0M§Δ				70nØ	30m	500mØ	50mØ	40 Δ		6.0pØ		P-MA	Ge		TO1	
74#	MA393E	25.0M§Δ				75nØ	30m	500mØ	50mØ	40 Δ		6.0pØ		P-MA	Ge		TO1	
75	HA9054	25.0MΔ	30n				250m	10	2.0m	25 †		10pØ		P-ME	Si	160A	TO18	
76	HA9056	25.0MΔ	30n				250m	10	2.0m	25 †		10pØ		P-ME	Si	160A	TO18	
77	HA9058	25.0MΔ	30n				250m	10	2.0m	25 †		10pØ		P-ME	Si	160A	TO18	
78	2N3148	25.0M§Δ	80n§				25m*	500mØ	50m	60 Δ	6.0			P	Ge	100S	TO24	
79	2N1608	25.0M§Δ	235nØ		235nØ		100m	.50 Ø	15mØ	6.0 Δ				P	Si	140S	TO5	
80	2N496/18	28.8M§Δ	175n§				150m	.50 Ø	15mØ	15 Δ	30	12pØ	1.5n	P-S	Si	140S	TO18	
81	2N643	30.0M§	10n	80n	6.0n	80n	120m	7.0 Ø	5.0m	45 †		2.0p		P-A	Ge	71A	TO9	AØ
82	2N745	30.0M	50nt		20nt	80nt	150m	5.0 Ø	10mØ	35	150	1.4p		N-PD	Si	175J	u2	
83	2N907	30.0M	50nt		20nt	80nt	150m	5.0 Ø	10mØ	35	150	1.4p		N-PD	Si	175J	u10	
84	2N2225	30.0M	100nØ		100n	100n	200m	.50 Ø	400m	60 †	1.2	14p		P-A	Ge	85C	TO5	
85	2N2849-1	30.0M§Δ	125n	50n	300n	175n	850m	1.0 Ø	500uØ	50 Δ	400m	125pØ		N-PE	Si	200S	TO5	Ø
86	2N2849-2	30.0M§Δ	125n		300n	175n	850m	1.0 Ø	500uØ	50 Δ	400m	125pØ		N-PE	Si	200S	MT26	ØØ
87	2N2849-3	30.0M§Δ	125n		300n	175n	850m	1.0 Ø	500uØ	50 Δ	400m	125pØ		N-PE	Si	200S	MT32	ØØ
88	2N2850-2	30.0M§Δ	125n		400n	175n	850m	1.0 Ø	500uØ	25 Δ	250m	125pØ		N-PE	Si	200S	MT26	ØØ
89	2N2850-3	30.0M§Δ	125n		400n	175n	850m	1.0 Ø	500uØ	25 Δ	250m	125pØ		N-PE	Si	200S	MT32	ØØ
90	2N2851-2	30.0M§Δ	125n		400n	175n	850m	1.0 Ø	500uØ	25 Δ	400m	125pØ		N-PE	Si	200S	MT26	ØØ
91	2N2851-3	30.0M§Δ	125n	50n	400n	175n	850m	1.0 Ø	500uØ	25 Δ	400m	125pØ		N-PE	Si	200S	MT32	ØØ
92	2N2852-2	30.0M§Δ	125n	50n	400n	175n	850m	1.0 Ø	500uØ	15 Δ	400m	125pØ		N-PE	Si	200S	MT26	ØØ
93	2N2852-3	30.0M§Δ	125n	50n	400n	175n	850m	1.0 Ø	500uØ	15 Δ	400m	125pØ		N-PE	Si	200S	MT32	ØØ
94	2N2853-2	30.0M§Δ	125n	50n	400n	200n	850m	3.0 Ø	5.0	20 #Δ	300m	125pØ		N-PE	Si	200S	MT26	ØØ
95	2N2853-3	30.0M§Δ	125n	50n	400n	200n	850m	3.0 Ø	5.0	20 #Δ	300m	125pØ		N-PE	Si	200S	MT32	ØØ
96	2N2854-1	30.0M§Δ	125n	50n	300n	175n	850m	1.0 Ø	50mØ	50 Δ	400m	125pØ		N-PE	Si	200S	TO5	ØØ
97	2N2854-2	30.0M§Δ	125n	50n	300n	175n	850m	1.0 Ø	50mØ	50 Δ	400m	125pØ		N-PE	Si	200S	MT26	ØØ
98	2N2854-3	30.0M§Δ	125n	50n	300n	175n	850m	1.0 Ø	50mØ	50 Δ	400m	125pØ		N-PE	Si	200S	MT32	ØØ
99	2N2855-2	30.0M§Δ	125n	50n	400n	175n	850m	1.0 Ø	50mØ	25 Δ	400m	125pØ		N-PE	Si	200S	MT26	ØØ
100	2N2855-3	30.0M§Δ	125n	50n	400n	175n	850m	1.0 Ø	50mØ	25 Δ	400m	125pØ		N-PE	Si	200S	MT32	ØØ
101	2N2856-2	30.0M§Δ	125n	50n	400n	175n	850m	1.0 Ø	50mØ	15 Δ	400m	125pØ		N-PE	Si	200S	MT26	ØØ
102	2N2856-3	30.0M§Δ	125n	50n	400n	175n	850m	1.0 Ø	50mØ	15 Δ	400m	125pØ		N-PE	Si	200S	MT32	Ø
103#	2SA327	35.0M	80n		1.2u	400n	80m	1.0 Ø	80mØ	30		2.5p		P-D	Ge	85J	TO44	
104	2N866	40.0MΔ§			150nØ		500m	10 Ø	150mØ	15 Δ	40	45p		N	Si	300S	TO18	
105	HA9055	40.0MΔ	30n				250m	10	2.0m	55 †		10pØ		P-ME	Si	160A	TO18	
106	HA9057	40.0MΔ	30n				250m	10	2.0m	55 †		10pØ		P-ME	Si	160A	TO18	
107	HA9059	40.0MΔ	30n				250m	10	2.0m	55 †		10pØ		P-ME	Si	100A	TO18	
108	TN51	40.0M§	45n	15n	200n	40n	5.0mØ	5.0 Ø	1.0m	45	500m	100p		N-PE	Si	200J	MT26	
109	TN71	40.0M§	45n	15n	200n	40n	500u	5.0 Ø	1.0mØ	45	500m	100p		N-PE	Si	200J	TO5	
110	2N1300	40.0M§	110nt	140nt	140nt	110nt	150m	300mØ	10m	50				P-ME	Ge	85A	TO5	A

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	L C E O A D D E
1	2N1660	40.0M§	110nØ†		1.7u†	1.4u†	85mØ	15 Ø	1.0 Ø	80	4.0			N-PD	Si	200J	MS3	
2	2N1661	40.0M§	110nØ†		1.7u†	1.4u†	85mØ	15 Ø	1.0 Ø	80	4.0			N-PD	Si	200J	MS3	
3	2N1662	40.0M§	110nØ†		1.7u†	1.4u†	85mØ	15 Ø	1.0 Ø	80	4.0			N-PD	Si	200J	MS3	
4	2N1896	40.0M§	110nØ†		1.7u†	1.4u†	85mØ	15 Ø	1 Ø	80	4.0			N-D	Si	200J	MT16	
5	2N1897	40.0M§	110nØ†		1.7u†	1.4u†	85mØ	15 Ø	1 Ø	80	4.0			N-D	Si	200J	MT16	
6	2N1898	40.0M§	110nØ†		1.7u†	1.4u†	85mØ	15 Ø	1 Ø	80	4.0			N-D	Si	200J	MT16	
7	TIP14	40M§Δ	150nØ			600nØ	2.0	5.0 Ø	200mØ	30 †Δ	.60 #			P-E	Si	150	X43	
8	TN301	40.0M§	150n	50n	700n	200n	30 Ø	1.0 Ø	50mØ	50	250m	125pØ		N-PE	Si	200A	MT47	
9	TN302	40.0M§	150n	50n	700n	200n	30 Ø	1.0 Ø	50mØ	25	400m	125pØ		N-PE	Si	200A	MT47	
10	TN303	40.0M§	150n	50n	700n	200n	30 Ø	1.0 Ø	50mØ	50	250m	125pØ		N-PE	Si	200A	MT47	
11	2N1252A	40M§Δ	230nØ		150nØ		800m	10 Ø	150mØ	45 Ø	.10	45p		N	Si	200J	TO5	AØ
12#	2SA375	40.0M	550n		300n	200n	80m	1.0 Ø	50mØ	40	3.0	2.5p	30n†	P-D	Ge	85J	TO1	
13	2N908	45.0M	50n†		20n†	80n†	150m	5.0 Ø	10mØ	75	150	1.4p		N-PD	Si	175J	u10	
14#	BLY29	46.0M§Ø	300nØ			1.5uØ	30 Ø	5.0 Ø	2.0 Ø	50 #	500m#	40p		N-DPE	Si	200J	TO59	
15	2N867	50.0MΔ§			150nØ		500m	10 Ø	150mØ	30 Δ	40	45p		N	Si	300S	TO18	
16#	ST54	50.0M§Δ			300n		300m	400mØ	1.0mØ	35 Δ		10pØ		N-PE	Si		TO18	Ø
17#	ST160	50.0M§Δ			25n		600m	10 Ø	150mØ	30 #Δ		25pØ		N-PE	Si		TO5	Ø
18#	ST161	50.0M§Δ			25n		600m	10 Ø	150mØ	20 #Δ		25pØ		N-PE	Si		TO5	Ø
19#	ST162	50.0M§Δ			25n		600m	10 Ø	150mØ	40 #Δ		25pØ		N-PE	Si		TO5	Ø
20#	ST163	50.0M§Δ			25n		600m	10 Ø	150mØ	20 #Δ		25pØ		N-PE	Si		TO5	Ø
21	2N644	50.0M§	8.0n	60n	4.0n	60n	120m	7.0 Ø	5.0m	45 †		2.0p		P-A	Ge	71A	TO9	A
22	2N748	50.0M	15nØ		10n†	10n†	200m	5.0 Ø	10mØ	30	120	4.0p	60n†	N-AD	Si	175J	u2	
23	TN52	50.0M§	35n	15n	300n	50n	5.0mØ	5.0 Ø	1.0m	80	500m	100p		N-PE	Si	200J	MT26	
24	TN72	50.0M§	35n	15n	300n	50n	500u	5.0 Ø	1.0mØ	80	500m	100p		N-PE	Si	200J	TO5	
25	USAF511ES036P	50.0M§Δ	100n	80n	4.0u	500n	600m	10 Ø	2.0mΔ	120 Ø	100	35pØ		N-PL	Si	200J	TO39	Ø
26	USAF520ES070M	50.0M§Δ	100nØ		450n	85n	438m	10 Ø	1.0mØ	90 Ø	3.3	38pØ		PE	Si	200J	u26a	
27	USAF521ES071M	50.0M§Δ	150nØ		450n	85n	438m	10 Ø	150mØ	120 #Ø	4.0	40pØ		P-PLE	Si	200J	u25	
28	2N1253A	50M§Δ	190nØ		150nØ		800m	10 Ø	150mØ	90 Ø	.10	45p		N	Si	200J	TO5	AØ
29#	BLY30	50.0M§Ø	300nØ			1.5uØ	30 Ø	5.0 Ø	2.0 Ø	75 #	500m#	40p		N-DPE	Si	200J	TO59	
30	SE3040	50.0M§	300n	50n	350n	300n	15	2.0 Ø	2.0mØ	75 #	.20 #	45p		N	Si	150J	TO66	CØ
31	SE3041	50.0M§	300n	50n	350n	300n	15	2.0 Ø	2.0mØ	75 #	.20 #	45p		N	Si	150J	TO66	CØ
32	USAF517ES060M	50.0M§Δ	300nØ		600n	130n	438m	10 Ø	5.0mØ	180 Ø	7.0	55pØ		PE	Si	200J	u26a	
33	USAF514ES050M	50.0M§Δ	1000nØ		4.0n	1.0u	2.0	2.0 Ø	10 Ø	90 #Ø	150m	800p			Si	150J	X15a	
34#	ST150	60.0M§Δ			100n†		600m	10 Ø	150mØ	20 #Δ		25pØ		N-PE	Si		TO5	Ø
35	2N747	60.0M	13nØ		10n†	10n†	200m	5.0 Ø	10mØ	45	120	4.0p	60n†	N-AD	Si	175J	u2	
36	2N604	60.0M*	40n				120m	1.0 Ø	500uΔ	90		3.0p		P-D	Ge	85S	TO9	
37#	MDS34	60.0M§Δ	60n				60m	500mØ	40mØ	20 Δ		3.0pØ		P-MD	Ge		TO1	
38	2N1301	60.0M§	70n†	90n†	90n†	70n†	150m	500m	40m	75				P-ME	Ge	85A	TO5	A
39#	2SC117	60.0M§	75n		150n	50n	2.0	15 Ø	30m	10 Δ		33p		N-D	*Si*	*175J*	TO8	Ø
40	B148005	60.0M§Δ	200n	25n	300n	300n	100 Ø	5.0 Ø	.02mØ	160 #Ø	.10			N	Si	175J	TO61	AØ
41	CS696	64.0MΔ	200n†				1.5 Ø	10 Ø	150mØ	20 #Δ	10	35pØ		N-D	Si		R97	
42	SE9020	70.0M§	400nØ		500n†	1.0n	62	5.0 Ø	1.0 Ø	125 #Ø		55p		N-DPE	Si	150J	TO3	Ø
43	2N645	75.0M§	6.0n	40n	2.0n	40n	120m	7.0 Ø	5.0m	45 †		2.0p		P-A	Ge	71A	TO9	
44	JAN2N1199A	75.0M§Δ	55n		20n	35n	150m	1.0 Ø	20mØ	60 Ø	25	2.5pØ		N	Si	150S	R49	
45#	SI341P	80.0M§	50nØ†			50nØ†	600m	5.0 Ø	1.5mØ	45 Ø	12	35p		P-DPL	Si	175J	ZA15	
46#	SI342P	80.0M§	50nØ†			50nØ†	600m	5.0 Ø	1.5mØ	90 Ø	10	35p		P-DPL	Si	175J	ZA15	
47#	SI343P	80.0M§	50nØ†			50nØ†	600m	5.0 Ø	1.5mØ	180 Ø	10	35p		P-DPL	Si	175J	ZA15	
48#	2SC114	80.0M	70n		110n	25n	750m	2.0	200m	20 Δ		18p		N	Si	150J	TO5	
49	CS718	80.0MΔ	200n†				1.0 Ø	10 Ø	150mØ	40 #Δ	10	35pØ		N-D	Si		R97a	
50	FT34A	80.0M§Δ	500nØ			1.0uØ	15 $Ø	2.0 Ø	2.0uØ	85 #Ø	120m	60pØ		N-PE	Si	200S	TO59	
51	FT34B	80.0M§Δ	500nØ			1.0uØ	15 $Ø	2.0 Ø	2.0uØ	210 #Ø	120m	80pØ		N-PE	Si	200S	TO59	
52	2N501/18	90.0M§	18n		12n	10n	150m	500mØ	10m	20 Δ	20		5.0n	P-ME	Ge	100J	TO18	
53	2N2234	90.0M§	30nØ	9.0n†		600nØ	10 Ø	2.0 Ø	100mØ	35		23p		N-PE	Si	150	TO3	
54#	SI351P	90.0M§	40nØ†			50nØ†	400m	5.0 Ø	1.5mØ	45 Ø	1.9	20p		P-DPL	Si	*175J*	ZA16	
55#	SI352P	90.0M§	40nØ†			50nØ†	400m	5.0 Ø	1.5mØ	90 Ø	1.9	20p		P-DPL	Si	175J	ZA16	
56#	SI353P	90.0M§	40nØ†			50nØ†	400m	5.0 Ø	1.5mØ	180 Ø	1.9	20p		P-DPL	Si	175J	ZA16	
57	2N3216	90.0M§Δ	350nØ		250n			.22 Ø	200mØ	60 Δ	1.1	20pØ		P	Ge	100S	TO5	
58	2N1060	100M	50n		50nØ		250m	10 Ø	10m	60 †		10pØ		N-DM	Si	150J	TO28	
59	2N3450	100M§Δ	50n	50n	150n	85n	600m	1.0 Ø	150mØ	120 #Ø	3.3	15pØ		N	Si	200S	TO5	Ø
60	NS9210	100M§	50n	50n	80n	40n	50	15 Ø	100mØ	30	1.5	30p		N-PE	Si	175	TO61	
61	NS9211	100M§	50n	50n	80n	40n	50	15 Ø	100mØ	30	1.5	30p		N-PE	Si	175	TO61	
62#	BLY10	100M§	55n†	70n†	280n†	105n†	10 Ø	1.6 Ø	100mØ	22		25p		N-PL	Si	150	TO3	
63	2N995A	100M§Δ	60nØ			90nØ	360m	1.0 Ø	20mØ	140 #Ø		6.0pØ		P-PE	Si	200J	TO18	Ø
64	2N1959A/51	100M§	60nØ		25n	45nØ	300m	10 Ø	1	25 †Δ		14pØ		N-D	Si	200J	TO51	
65#	MDS31	100M§Δ	60n				60m	300mØ	20mØ	30 Δ				P-MD	Ge		TO1	
66#	MDS36	100M§Δ	60n				60m	300mØ	10mØ	30 Δ		3.0pØ		P-MD	Ge		TO18	Ø
67	2N1958/18	100M§Δ	65nØ		25n	20n	300m	10 Ø	150m	40	3.0	18pØ		N-E	Si	175J	TO18	
68	2N1959/18	100M§Δ	65nØ		25n	20n	300m	10 Ø	150m	40	3.0	18pØ		N-E	Si	175J	TO18	
69	2N1964	100M§Δ	65nØ		25n	45nØ	400m	10 Ø	150mØ	60 Δ	3.0	18pØ		N	Si	175J	TO46	AØ
70	2N1964/46	100M§Δ	65nØ		25n	45nØ	400m	10 Ø	150mØ	40	3.0	18pØ		N-E	Si	300S	TO46	
71	2N1965	100M§Δ	65nØ		25n	45nØ	400m	10 Ø	150mØ	120 Ø	3.0	18pØ		N	Si	175J	TO46	AØ
72	2N1965/46	100M§Δ	65nØ		25n	20n	400m	10 Ø	150mØ	40 Δ	3.0	18pØ		N-E	Si	175J	TO46	
73	2N2927/46	100M§Δ	75nØ			170nØ	400m	1.0 Ø	50mØ	30 †Δ	3.0	20pØ		P-PE	Si	200J	TO46	
74	2N2927/51	100M§Δ	75nØ			170nØ	300m	1.0 Ø	50mØ	30 †Δ	3.0	20pØ		P-PE	Si	200J	TO51	
75	USAF515ES045M	100M§Δ	75nØ		150n	50n	350m	1.0 Ø	50mØ	20 Δ	15	8.0pØ		P-PLE	Si	200J	X34	
76	USAF515ES046M	100M§Δ	75nØ				350m	1.0 Ø	50mØ	20 Δ	15	8.0pØ		P-PLE	Si	200J	X34	
77	RT1115	100M	85n		100n	55n	800m	1.0 Ø	150mØ	120 Ø	3.3	15pØ		N-PE	Si	200J	TO5	Ø
78	USAF516ES047M	100M§Δ	100nØ		200n	80n	350m	1.0 Ø	10mØ	30 Δ	15	8.0pØ		P-PLE	Si	200J	X34	
79	USAF516ES048M	100M§Δ	100nØ				350m	1.0 Ø	50mØ	20 Δ	15	8.0pØ		P-PLE	Si	200J	X34	
80#	VH10	100M§Δ	100nØ			200nØ	3.0 Ø	1.0 Ø	50mØ	130 #		20pØ		P-DPE	Si	200J	TO5	Ø
81#	BFY15	100M§	120nØ		300n	1.0uØ	600m	2.5 Ø	200mØ	20		48pØ		N-PLØ	Si	150A	TO5	Ø
82	2N1444	100M	250nØ			250nØ	500m	5.0 Ø	250m	25		32p		N-ME	Si	150J	TO29	
83#	C434	100M§	250nØ			600nØ	10 $	2.0 Ø	2.0 Ø	30 #Δ	150m	40p		N-DPE	Si	150J	TO3	Ø
84#	CP408	100M§	250nØ†			500nTØ	10 $Ø	10 Ø	2.0 Ø	120 #				N-DPE	Si	150J	TO3	Ø
85#	BUY16	100M§	500nØ			1.0uØ	15 Ø	2.0 Ø	2.0 Ø	85 #	120m	35p		N-DPE	Si	200J	TO59	Ø
86#	BUY17	100M§	500nØ			1.0uØ	15 Ø	2.0 Ø	2.0 Ø	10 #	120m	35p		N-DPE	Si	200J	TO59	Ø
87#	CP406	100M§	500nØ			1.0uØ	10 $	10 Ø	5.0 Ø	70 #				N-DPE	Si	150J	TO3	Ø
88#	CP407	100M§	500nØ			1.0uØ	10 $Ø	10 Ø	2.0 Ø	100 #				N-DPE	Si	150J	TO3	Ø
89	T1905	120M§	18n		12n	10n	40m	.50 Ø	50mØ	20 Δ	5.0	5.0pØ		P	Ge	85S	TO9	
90	2N2799	120M§Δ	25n	20n	140n	30n	75m	.30 Ø	10mØ	50	20	2.5p		P-D	Ge	100S	TO9	
91	2N2943	120M§Δ	25n	20n	140n	30n	150m	.50 Ø	50mØ	45	5.0	4.0pØ		P-D	Ge	100S	TO9	
92	2N2800/46	120M§Δ	45n	15n	225n	45n	400m	10 Ø	150mØ	90 Ø		25p		P-E	Si	200J	TO46	
93	2N2800/51	120M§Δ	45n	15n	225n	45n	300m	10 Ø	150mØ	90 Ø		25p		P-E	Si	200J	TO51	
94	2N2801/51	120M§Δ	45n	15n	225n	45n	300m	10 Ø	150mØ	225 Ø		25p		P-E	Si	200J	TO51	
95	2N2235	140M§	25nØ	9.0n†		600nØ	10 Ø	2.0 Ø	100mØ	65		23p		N-PE	Si	150	TO5	
96	D29A10	140M§Δ	70n	25n	100n	70n	330m	10 Ø	2.0mØ	32 Δ		8.0p$Ø		P-PE	Si	125J	TO98	B
97	D29A11	140M§Δ	70n	35n	140n	70n	330m	10 Ø	2.0mØ	80 Δ		8.0p$Ø		P-PE	Si	125J	TO98	B
98	2N1837B	140M§	200nØ		500nØ		800m	10 Ø	150m	40 *Δ		18pØ		N	Si	200J	TO5Ø	
99	2N728	150M	12n	6.0	10nØ		300m	6.0 Ø	10m	40	70		8.0n	*N-ME*	*Si*	175S	TO18	
100	2N729	150M	12n	6.0n	10nØ		300m	6.0 Ø	10m	40	70		8.0n	N-ME	Si	175S	TO18	
101	2N2048A	150M§Δ	20n	15n	120n	25n	150m	.50 Ø	50mØ	40 †Δ	4.0	3.0pØ		P	Ge	100S	TO9	
102	2N2942	150M§Δ	20n	15n	120n	25n	150m	.50 Ø	50m	65	4.0	3.5pØ		P-D	Ge	100S	TO9	
103	FK3502	150M§Δ	40nØ			100nØ	350mØ	10 Ø	10mØ	270 #	2.7	8.0pØ		P-PE	Si	200S	u17b	
104	FK3503	150M§Δ	40nØ			100nØ	350mØ	10 Ø	10mØ	270 #	2.7	8.0pØ		P-PE	Si	200S	u17b	
105	FV3502	150M§Δ	40nØ			100nØ	350mØ	10 Ø	10mØ	270 #	2.7	8.0pØ		P-PE	Si	200S	u5b	
106	FV3503	150M§Δ	40nØ			100nØ	350mØ	10 Ø	10mØ	270 #	2.7	8.0pØ		P-PE	Si	200S	u5b	
107#	SFT713	150M§Δ	50n†	20n†	400n	25n†	300m	4.5 Ø	2.0mØ	90 Ø	600m	5.0p		N-E	Si	175A	R38w	Ø
108	2N3081/46	150M§Δ	60nØ			175nØ	400m	10 Ø	150mØ	30 †Δ	2.0	13pØ		P-PE	Si	200J	TO46	
109	2N3081/51	150M§Δ	60nØ			175nØ	300m	10 Ø	150mØ	30 †Δ	2.0	13pØ		P-PE	Si	200J	TO51	
110	2N3400	150M§Δ	60n	30n	200n	60n	150m	.50 Ø	50mØ	300 Ø	4.0	3.0pØ		P	Ge	100S	TO9	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] fab (Hz)	[2] MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	DESCRIPTION M A T	DESCRIPTION MAX. TEMP (°C)	DWG. No.	L C E O A D D E
1	NS6207	150MS△	60nØ			60nØ	150m	1.0 Ø	150mØ	30 #△	3.3	8.0pØ		N-E	Si	150	X16	
2	2N2718	150MS△	100nØ		250nØ		240m	.27 Ø	170mØ	25 △		10pØ		P	Ge	100S	TO5	
3#	BFY16	150MS	120nØ		300n	1.0uØ	600m	2.5 Ø	200mØ	36		48pØ		N-PLØ	Si	150A	TO5	Ø
4#	BLY11	150MS	120nØt		300nt		10 Ø	2.5 Ø	100mØ	40		25p		N-PL	Si	150	TO3	
5#	2SA363	150MS	200n		300n	100n	100m	3.0 Ø	20mØ	80	30	6.0pØ		P-ME	Ge	85J	TO44	
6	2N1500/18	175MS	13n				60m	500mØ	10m	70		1.5p		P-MD	Ge	100S	TO18	
7#	2SC112	180M	50n		110n	17n	750m	2.0 Ø	200m	125 Ø		7.0p		N	Si	175	TO5	
8#	2SC113	180M	50n		110n	17n	750m	2.0 Ø	200m	125 Ø		7.0p		N	Si	175	TO5	
9	RT719M	180M	80nt				400m	10 Ø	150mØ	30 #	5.3	14p		N-PL	Si	175J	TO46	
10	2N706/51	200MS△			60n		300m	1.0 Ø	10mØ	20 t△	60	6.0pØ		N-E	Si	175J	TO51	
11#	BSY33	200MS△	10nt	27nØ	130nØ	16nt	100m	2.0 Ø	10mØ	55		4.0p		N-PE S	i	100J	u18	
12#	BSY48	200MS△	10nt	27nØ	130nØ	16nt	100m	2.0 Ø	10mØ	55		4.0p		N-PE S	i	100J	u19	
13#	BSY32	200MS△	12nt	27nØ	130nØ	16nt	100m	2.0 Ø	10mØ	32		4.0p		N-PE S	i	100J	u18	
14#	BSY47	200MS△	12nt	27nØ	130nØ	16nt	100m	2.0 Ø	10mØ	32		4.0p		N-PE S	i	100J	u19	
15#	BFY25	200MS△	13nt	9.0nt	400nt	300nt	600m	9.0 Ø	10mØ	26 △	150	5.5pØ		N-PL	Si	200J	TO5	
16	2N1962	200MS△	18nØ		10n	30nØ	400m	1.0 Ø	10mØ	80 Ø	25	3.5pØ		N	Si	175J	TO46	AØ
17	2N1962/46	200MS	18nØ		10n	30nØ	400m	1.0	10mØ	20 △				N-E	Si	175J	TO46	Ø
18	2N1963	200MS△	20nØ		15n	40nØ	400m	1.0 Ø	10mØ	25 △	19	3.5pØ		N	Si	175J	TO46	AØ
19	2N1963/46	200MS△	20nØ		15n	25n	400m	1.0 Ø	10mØ	25 △	19	3.5pØ		N-E	Si	175J	TO46	
20	2N3928	200MS△	30n	5.0n	50n	25n	5.0mØ	10 Ø	1.5 Ø	20 △	3.3	25pØ		N	Si	175J	R114	Ø
21	2N3929	200MS△	30n	5.0n	50n	25n	20mØ	10 Ø	1.5 Ø	20 △	3.3	25pØ		N	Si	175J	TO59	Ø
22#	2SA247	200M	30n		450n	70n	100m	3.0	20m	125		5.5p		P	Ge	85	TO44	
23	LDS208	200MS△	30ntØ	12nt♦		225nØ	360m	10 Ø	150mØ	100 #Ø		8.0pØ		N-PE	Si	150J	u34	A
24	2N706A/51	200MS△	40n		25n	50n	300m	1.0 Ø	10mØ	20 t△	60	5.0pØ		N-E	Si	175J	TO51	
25	2N706C/46	200MS△	40nØ		25n	50n	400m	1.0 Ø	10mØ	20 t△	40	5.0pØ		N-E	Si	200J	TO46	
26	2N706C/51	200MS△	40nØ		25n	50n	300m	1.0 Ø	10mØ	20 t△	40	5.0pØ		N-E	Si	200J	TO51	
27	2N753/51	200MS△	40nØ		35n	50n	300m	1.0 Ø	10mØ	40 t△	60	5.0pØ		N-E	Si	175J	TO51	
28	40218	200MS△	40nØ	25n$		75nØ	300m	1.0 Ø	10mØ	20 t△		5.0pØ		N	Si	175	TO52	Ø
29	40222	200MS△	40nØ	25n$		75nØ	300m	1.0 Ø	10mØ	20 t△		6.0pØ		N	Si	175	TO52	Ø
30	USA55191/35	200MS△	50nØ			60nØ	700m	700mØ	8.0mØ	20 △	13	6.0pØ		N	Si	200J		
31	FK3299	200MS△	60nØ			150nØ	350mØ	10 Ø	150mØ	40 △#	1.2	8.0pØ		N-PE	Si	300S	u17b	
32	FV3299	200MS△	60nØ			150nØ	350mØ	10 Ø	150mØ	40 △#	1.2	8.0pØ		N-PE	Si	300S	u5b	
33	NS949	200MS△	60nØ		100nØ		5.0 Ø	2.0 Ø	500mØ	10 △		2.3p	12n	N-E	Si	200A	TO46	
34	NS950	200MS△	60nØ		70nØ		5.0 Ø	2.0 Ø	500mØ	15 △		2.3p		N-E	Si	200A	TO46	
35	2N2397	200MS	70nØ		25n	40nØ	300m	1.0 Ø	10mØ	25 △		5.0pØ		N-EM	Si	200J	TO51	
36#	2SC479H	200MS△	100nØ			80nØ	650m	1.0 Ø	100mØ	130 Ø		20pØ		N-PE	Si	175J	TO5	A
37	NS2100	200MS	125nØ		225nØ		500m	10 Ø	10mØ	40 △		10pØ		N	Si	200J	TO18	Ø
38	NS2101	200MS	125nØ		225nØ		800m	10 Ø	10mØ	40 △		10pØ		N	Si	200J	TO5Ø	
39	2N2797	235MS	20n	15n	120n	25n	75m	30 Ø	10mØ	80	15	2.5p		P-D	Ge	100S	TO9	
40	2N2798	235MS	25n	20n	140n	30n	75m	30 Ø	10mØ	50	20	2.5p		P-D	Ge	100S	TO9	
41	LDS206	250M					360m	5.0 Ø	1.0mØ	100		6.0p		N	Si	150J	TO122	P
42	2N695	250MS	1.6nt		2.0 t	1.3nt	75m	300mØ	10m	40		3.5p		P-ME	Ge	100J	TO17	
43	2N3982	250MS△	15n	15n	25n	15n	3.0 Ø	1.0 Ø	150mØ	140 Ø	2.7	8.0pØ		N	Si	200J	TO5	Ø
44#	MDS33C	250MS△	18n		12n	10n	60m	5.0 Ø	10mØ	6.2 t△		4.0pØ		P-MD	Ge		TO1	
45	2N3981	250MS△	20n	15n	30n	10n	3.0 Ø	1.0 Ø	150mØ	120 Ø	2.7	8.0pØ		N	Si	200J	TO5	Ø
46	40283	250MS△	30nØ		30n	45nØ	2.0 Ø	1.0 Ø	500mØ	10 #△	2.0	10pØ		N-DPE	Si	200J	TO46	AØ
47	FM2242	250MS△	30nØ			50nØ	350m	1.0 Ø	10mØ	40 △	7.0	6.0pØ		N	Si	200	TO46	Ø
48	2N3131	250M	35nØ	10n	25n	75nØ	150m	1.0 Ø	10mØ	120 Ø	25	4.0pØ		N-P	Si	150J	X16	
49#	2SC103A	250MS	40nØ		500n	60n	250m	1.0 Ø	10mØ	40 △		4.0p		N-PL	Si	175J	TO18	
50	TA2626	250MS△	40nØ			80nØ	800m	1.0 Ø	100mØ	30 △	800m	12pØ		N-DPE	Si	200J	TO5	Ø
51	TA2750	250MS△	40nØ			60nØ	800m	1.0 Ø	100mØ	30 △	800m	12pØ		N-DPE	Si	200J	TO5	Ø
52#	96EP	250MS△	50nØ			100nØ	250m	5.0 Ø	150mØ	30 #△	33	10pØ		N-PEt	Si	125J	u46	A
53	FK3300	250MS△	60nØ			150nØ	350mØ	10 Ø	150mØ	100 △#	1.2	8.0pØ		N-PE	Si	300S	u17b	
54	FV3300	250MS△	60nØ			150nØ	350mØ	10 Ø	150mØ	100 △#	1.2	8.0pØ		N-PE	Si	300S	u5b	
55	USAF522ES067M	250MS△	60nØ			60nØ	350m	1.0 Ø	70mØ	15 #	6.4			N-PLE	Si	200J	X34	
56	USAF522ES075M	250MS△	60nØ			60nØ	350m	1.0 Ø	70mØ	20 #	6.4			N-PLE	Si	200J	X34	
57	USAF523ES077M	250MS△	60nØ			60nØ	350m	1.0 Ø	70mØ	15 #	6.4			N-PLE	Si	200J	X34	
58	USAF523ES078M	250MS△	60nØ			60nØ	350m	1.0 Ø	70mØ	15 #	6.4			N-PLE	Si	200J	X34	
59#	ST501	270MS△			25n		300m	1.0 Ø	10mØ	22 △				N-PE	Si		TO18	Ø
60#	ST502	270MS△			25n		300m	1.0 Ø	10mØ	50 △				N-PE	Si			
61#	MDS38	280MS△	30n				50m	500mØ	10mØ	20 △		4.0pØ		P-MD	Ge		TO18	Ø
62	2N1992	300MS			20n		350m	500mØ	1.0m	45 t	9.0	5.0pØ		N-E	Si	200J	TO18	Ø
63#	ST02	300MS△			200n		360m	1.0 Ø	10mØ	20 △		6.0pØ		N-PE	Si		TO18	Ø
64#	ST03	300MS△			200n		360m	1.0 Ø	10mØ	20 △		6.0pØ		N-PE	Si		TO18	Ø
65#	ST04	300MS△			200n		360m	1.0 Ø	10mØ	40 △		6.0pØ		N-PE	Si		TO18	Ø
66#	ST05	300MS△			200n		360m	1.0 Ø	10mØ	100 △		6.0pØ		N-PE	Si		TO18	Ø
67#	ST51	300MS△			130n		300m	350mØ	10mØ	40 △		6.0pØ		N-PL	Si		TO18	Ø
68#	ST55	300MS△			25n		300m	1.0 Ø	10mØ	40 △		6.0pØ		N-PE	Si		TO18	Ø
69#	ST56	300MS△			25n		300m	1.0 Ø	10mØ	40 △		6.0pØ		N-PE	Si		TO18	Ø
70#	ST57	300MS△			25n		300m	500mØ	10mØ	40 △		6.0pØ		N-PE	Si		TO18	Ø
71#	ST63	300MS△			16n		125m	350mØ	5.0mØ	40 #△		5.0pØ		N-PE	Si		TO18	Ø
72#	ZT190	300MS△			150n		300m	400mØ	1.0mØ	30		6.0p		N-PL	Si	175A	TO18	Ø
73#	ZT191	300MS△			300n		300m	400mØ	1.0mØ	30		10p		N-PL	Si	175A	TO18	Ø
74#	ZT192	300MS△			200n		300m	400mØ	1.0mØ	30		6.0p		N-PL	Si	175A	TO18	Ø
75#	ZT193	300MS△			200n		300m	400mØ	1.0mØ	50		6.0p		N-PL	Si	175A	TO18	Ø
76#	BSY37	300MS△	5.0nt	20nØ	30nØ	13nt	100m	2.0 Ø	10mØ	54		3.5p		N-PE S	i	100J	u18	
77#	BSY50	300MS△	5.0nt	20nØ	30nØ	13nt	100m	2.0 Ø	10mØ	54		3.5p		N-PE	Si	100J	u19	
78#	BSY36	300MS△	7.0nt	20nØ	30nØ	14nt	100m	2.0 Ø	10mØ	34		3.5p		N-PE S	i	100J	u18	
79#	2SC62	300MS△	8.0n	11n	55n	20n	360m	10 Ø	10mØ	3.0 t		6.0p		N-PL	Si	200J	TO18	
80	2N4421	300MS△	12n	10n	18n	12n	500mØ	400mØ	30mØ	25 △#		5.0pSØ		Nt	Si	150S	X55	A
81	A344	300MS△	14nØ		16n	45nØ	300m	350mØ	10mØ	120 Ø	60	5.0pØ		N-PE	Si	175J	TO18	A
82	A345	300MS△	14nØ		16n	45nØ	300m	350mØ	10mØ	60 Ø	60	5.0pØ		N-PE	Si	175J	TO18	A
83	A346	300MS△	14nØ		16n	45nØ	300m	350mØ	10mØ	120 Ø	60	5.0pØ		N-PE	Si	175J	TO18	A
84	JAN2N851	300MS△	16nØ			40nØ	300m	350mØ	10mØ	20 △	35	5.0pØ		N	Si	300S	TO50	
85	JAN2N852	300MS△	16nØ			45nØ	300m	350mØ	10mØ	60 △	35	5.0pØ		N	Si	300S	TO50	
86	FK3014	300MS△	16nØ			25nØ	350mØ	400mØ	30mØ	30 △#	3.5	5.0pØ		N-PE	Si	200S	u17b	
87	FV3014	300MS△	16nØ			25nØ	350mØ	400mØ	30mØ	30 △#	3.5	5.0pØ		N-PE	Si	200S	u5b	
88	2N784A/46	300MS	20nØ		15n	25n	360m	40	10m	25	40	3.5pØ		N-E	Si	200J	TO51	
89	2N835/46	300MS△	20nØ			35nØ	400m	1.0 Ø	10mØ	20 t△	30	4.0pØ		N-E	Si	175J	TO46	
90	2N835/51	300MS△	20nØ			35nØ	300m	1.0 Ø	10mØ	20 t△	30	4.0pØ		N-E	Si	175J	TO51	
91	2N2630	300MS△	20n$				300m	750mØ	100mØ	25 △	4.5	4.0pØ		P	Ge	100S	TO18	Ø
92#	TK258A	300MS	20nØ		20n		300m	0.0	10m	20 △	350		5.0n	N-PE	Si	175J	TO18	
93#	TK259A	300MS	20n		20n		300m	0.0	10m	40 △	350	5.0p		N-PE	Si	175J	TO18	
94	2N3451	300MS△	25nØ			25nØ	300m	300mØ	10mØ	30	10	5.5pØ		P-PE	Si	200J	TO18	Ø
95	40219	300MS△	25n$	25n$			360m	1.0 Ø	10mØ	30 t△		6.0pØ	300p	N	Si	200	TO52	Ø
96#	ME6021	300MS△	26nØ		68nØ		360m	1.0 Ø	50mØ	40	5.0	6.0p		N	Pe	150	R97b	
97#	ME6022	300MS△	26nØ		68nØ		360m	1.0 Ø	50mØ	100	5.0	6.0p		N	Pe	150	R97b	
98#	2SA56	300MS	28nt	22nt	65nt	45nt	150m	300mØ	10mØ	40	30	5.0p		P-ME	Ge	100	TO18	
99#	2SA126	300MS	28nt	22nt	65nt	45nt	150m	500mØ	10mØ	40	50	5.0p		P-ME	Ge	100	TO18	
100#	2SA405	300MS	28nt	22nt	65nt	45nt	150m	500mØ	10mØ	40	50	5.0p		P-ME	Ge	100	TO18	
101	GME9021	300MS△	30nØ			50nØ	625mØ	1.0 Ø	10mØ	120 Ø		6.0pØ		N-PE	Si	125S	X45	
102	PET9003	300M	30n		20n	50n	250m	1.0 Ø	10mØ	80		6.0pØ		N-PE	Si	125	TO18	
103#	ST53	300MS△	30nØt		25n	30nØt	300m	1.0 Ø	10mØ	40 △		6.0pØ		N-PE	Si		TO18	
104#	2SA410	300MS	35n	25n	85n	65n	150m	300mØ	10mØ	40	10	1.5p		P-EM	Ge	100	TO18	
105	2N914A	300MS△	40nØ	20n$		40nØ		5.0 Ø	500mØ	25 #△	1.0	6.0pØ		N	Si	200J	R64	Ø
106	2N1708A	300MS△	40nØ		25n	75nØ	300m	1.0 Ø	10mØ	120 Ø	22	6.0pØ		N	Si	175J	TO46	Ø
107	2N2272	300MS△	40nØ		20n	40nØ	360m	1.0 Ø	10mØ	60 #△				N	Si	200	TO18	Ø
108#	2SC100	300MA	40nØ			70nØ	150m	1.0 Ø	10mØ	30 △		6.0pØ	100nt	N-PE	Si	200J	u23a	C
109	10B705	300MS	40nØ		35n	75nØ			10mØ	20 △	600			N-PE	Si		TO50	
110	40221	300MS△	40nØ			40nØ	360m	1.0 Ø	10mØ	30 t△		6.0pØ		N	Si	200	TO52	Ø

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	CS2481	300M§Δ	40nØ		20n	45nØ	650mØ	1.0 Ø	10mØ	40 #Δ		5.0pØ		N	Si		R97a	
2	FK914	300M§Δ	40nØ			40nØ	350mØ	1.0 Ø	10mØ	55 #	3.5	6.0pØ		N-PE	Si	300S	u17b	
3	FV914	300M§Δ	40nØ			40nØ	350mØ	1.0 Ø	10mØ	55 #	3.5	6.0pØ		N-PE	Si	300S	u5b	
4#	PEP2	300M	40n		25n	75n	300m	1.0	10m	20		6.0p		N-PE	Si	200	TO18	
5#	PEP5	300MΔ	40nØ		25n	75nØ	300m	1.0 Ø	10mØ	40		6.0p		N	Si	200	TO18	
6#	PEP6	300MΔ	40nØ		25n	75nØ	300m	1.0 Ø	10mØ	40		6.0p		N	Si	200	TO18	
7#	PEP7	300MΔ	40nØ		25n	75nØ	300m	1.0 Ø	10mØ	40		6.0p		N	Si	200	TO18	
8#	PEP8	300MΔ	40nØ		25n	75nØ	300m	1.0 Ø	10mØ	40		6.0p		N	Si	200	TO18	
9#	ST59	300M§Δ	40nØ		20n	40nØ	360m	1.0 Ø	10mØ	30 #Δ		9.0pØ		N-PE	Si		TO18	Ø
10	D11E404	300M§Δ	50nØ		100nØ		800m	5.0 Ø	800m	12 Δ#		10pØ		N-EP	Si	200J	TO5	
11	GME9022	300M§Δ	50nØ			70nØ	625mØ	1.0 Ø	10mØ	30 Δ		6.0pØ		N-PE	Si	125S	X45	
12	PET9004	300M	50n		20n	70n	250m	1.0 Ø	10mØ	100		6.0pØ		N-PE	Si	125	TO18	
13	XT300	300M§Δ	50nØ			85nØ	75m	300mØ	10m	40 Δ	12	40pØ		P-D	Ge	100S	TO18	
14	D11E405	300M§Δ	60nØ		100nØ		800m	5.0 Ø	800m	12 Δ#		10pØ		N-EP	Si	200J	TO5	
15	D11E406	300M§Δ	70nØ		130nØ		800m	5.0 Ø	800m	12 Δ#		9.0pØ		N-EP	Si	200J	TO5	
16	D11E407	300M§Δ	70nØ		130nØ		800m	5.0 Ø	800m	12 Δ#		9.0pØ		N-EP	Si	200J	TO5	
17	2N779B	320M§Δ	18n	50n$	18n		150m	.50 Ø	50mØ	35 Δ	4.0	2.5pØ		P	Ge	100S	TO18	A
18	2N846B	320M§Δ	18n	50n$		18n	150m	.50 Ø	50mØ	20 Δ	14	2.5pØ		P	Ge	100S	TO18	A
19	101A	320M§	80nØ		120n	80n	150m	3.0 Ø	50mØ	40	30			P-ME	Ge		TO18	
20	101B	320M§	80nØ		120n	80n	150m	3.0 Ø	50mØ	40	30			P-ME	Ge		TO18	A
21	101M	320M§	80nØ		120n	80n	150m	3.0 Ø	50mØ	40	30			P-ME	Ge		TO18	A
22#	ST64	350M§Δ			18n		360m	1.0 Ø	10mØ	40 #Δ		4.0pØ		N-PE	Si		TO18	Ø
23	2N4420	350M§Δ	10n	8.0n	15n	10m	500mØ	400mØ	30mØ	30 Δ#		5.0p$Ø		N†	Si	150S	X55	A
24	2N4422	350M§Δ	15n	10n	20n	15n	500mØ	400mØ	30mØ	120 Ø#		5.0p$Ø		NT	Si	150S	X55	A
25	2N834/46	350M§Δ	35nØ		25n	50n	400m	1.0 Ø	10mØ	25 †Δ	25	4.0pØ		N-E	Si	175J	TO46	
26	2N834/51	350M§Δ	35nØ		25n	50n	300m	1.0 Ø	10mØ	25 †Δ	25	4.0pØ		N-E	Si	175J	TO51	
27	16J1	350M§	35nØ		18n	45nØ	200m	1.0 Ø	10mØ	30 Δ	25	6.0pØ		N-PE	Si	100J	R67	B
28	40220	350M§Δ	35nØ	25n$		75nØ	300m	1.0 Ø	10mØ	25 †Δ		4.0pØ		N	Si	175	TO52	Ø
29	16J2	350M§	45nØ		40n	60nØ	200m	1.0 Ø	10mØ	30 Δ	25	6.0pØ		N-PE	Si	100J	R67	B
30#	ST58	360M§Δ	40nØ		25n	75nØ	360m	1.0 Ø	10mØ	30 #Δ		6.0pØ		N-PE	Si		TO18	Ø
31#	ST60	400M§Δ			18n		360m	1.0 Ø	10mØ	30 #Δ		4.0pØ		N-PE	Si		TO18	Ø
32#	ST61	400M§Δ			18n		360m	1.0 Ø	10mØ	20 #Δ		4.0pØ		N-PE	Si		TO18	Ø
33#	ST62	400M§Δ			18n		360m	1.0 Ø	10mØ	40 #Δ		4.0pØ		N-PE	Si		TO18	Ø
34#	ST80	400M§Δ			10n		360m	1.0 Ø	10mØ	25 #Δ		4.0pØ		N-PE	Si		TO18	Ø
35	GME9001	400M§Δ	9.0nt Ø			13ntØ	625mØ	1.0 Ø	10mØ	120 Ø		4.0pØ		N-PE	Si	125S	X45	
36	GME9002	400M§Δ	9.0nt Ø			15ntØ	625mØ	1.0 Ø	10mØ	150 Ø		4.0pØ		N-PE	Si	125S	X45	
37	2N977	400M§Δ	10n		20n		150m	.30 Ø	40mØ	50 Δ	2.5	8.0pØ		P	Ge	100S	TO18	A
38#	97EPA	400M§Δ	12nØ			18nØ	300m	1.0 Ø	10mØ	60 Ø		4.0pØ		N-PLt	Si	125J	u46	A
39#	97EPB	400M§Δ	12nØ			18nØ	300m	1.0 Ø	10mØ	150 Ø		4.0pØ		N-PLt	Si	125J	u46	A
40#	BSW78	400M§Δ	12nØ		10n	15nØ	200m	2.0 Ø	100mØ	10 #Δ	25	2.5p		N-PEt	Si	125J	X64	A
41#	BSX19%	400Mt Δ	12nØ		10n	15nØ	360m	1.0 Ø	10mØ	20 Δ	30	4.0p$		N-PE	Si	200J	TO18	Ø
42#	BSX19Ø	400M§Δ	12nØ		10n	18nØ	360m	1.0 Ø	10mØ	60 Ø	30			N-PE S	i	200J	TO18	AØ
43#	P346	400M§Δ	12nØ		15n	18nØ	300m	2.0 Ø	10mØ	25 †Δ		4.5pØ		N-PE	Si	175A	TO18	Ø
44	2N743/46	400M§	16nØ		14n	10n	300m	1.0 Ø	100mØ	10 †Δ	35	5.0pØ		N-E	Si	175J	TO51	
45	2N743/51	400M§	16nØ		14n	10n	300m	1.0 Ø	100mØ	10 †Δ	35	5.0pØ		N-E	Si	175J	TO51	
46	2N744/46	400M§	16nØ		18n	10n	400m	1.0 Ø	100mØ	20 †Δ	35	5.0pØ		N-E	Si	175J	TO46	
47	2N744/51	400M§	16nØ		18n	10n	300m	1.0 Ø	100mØ	20 †Δ	35	5.0pØ		N-E	Si	175J	TO51	
48	CS2218	400M§	26nØ		68nØ		1.5 Ø	10 Ø	150mØ	40 #Δ		4.0p		N	Si		R97	
49	CS2219	400M§	26nØ		68nØ		1.5 Ø	10 Ø	150mØ	100 #Δ		4.0p		N	Si		R97	
50	CS2221	400M§	26nØ		68nØ		1.0 Ø	10 Ø	150mØ	40 #Δ		4.0p		N	Si		R97a	
51	CS2222	400M§	26nØ		68nØ		1.0 Ø	10 Ø	150mØ	100 #Δ		4.0p		N	Si		R97a	
52	2N4423	400M§Δ	30n	15n	40n	15n	360mØ	500mØ	30mØ	150 Ø#		6.0p$Ø		P	Si	150S	X55	A
53	40217	400M§	60n$				300m	1.0 Ø	10mØ	20 †Δ		5.0p		N	Si	175	TO52	Ø
54#	BSW81	400M§Δ	60nØ			90nØ	200m	300mØ	10mØ	30 #Δ		8.0pØ		P-PEt	Si	125J	X64	A
55	MM2894	400M§Δ	60nØ			60nØ	1.2 Ø	.30 Ø	1.0mØ	25 #Δ	5.0	6.0pØ		P-E	Si	200J	R038w	
56	MPS2894	400M§Δ	60nØ			90nØ	1.0 Ø	500mØ	30mØ	70 #	15	6.0pØ		P-E	Si	125J	X20b	
57#	V405	400M§Δ	80nØ			110nØ	300m	500mØ	30mØ	20 †Δ		6.5pØ		N-PE	Si	175J	TO18	Ø
58#	2SC63	400M§	120n		100n	100n	300m	1.0 Ø	10mØ	40	60		4.5n	N-ME	Si	175	TO18	
59	2N559	440Mt	100 tØ			37ntØ	150m	500mØ	10m	45	20	6.0pØ		P-ME	Ge	150	TO28	
60	u7003	450M§Δ	15nØ		15nØ		200m	.50 Ø	10mØ	70		3.0pØ		N-D	Si	175J	TO51	
61	2N846	450M§	18n			18n	60m	500mØ	50m	35	12	1.9p		P-MD	Ge	100S	TO18	
62	2N960/46	460M§	50nØ			85nØ	150m	300mØ	10m	40	18	2.2p		P-EM	Ge	100J	TO46	
63	2N962/46	460M§	50nØ			100nØ	150m	300mØ	10m	40	20	2.2p		P-EM	Ge	100J	TO46	
64	2N708/46	480MΔ	40nØ		25n	75nØ	360m	40	10m	30 Δ	40	6.0pØ	50n	N-PL	Si	200J	TO46	
65	2N708/51	480MΔ	40nØ			75nØ	360m	1.0 Ø	10m	30 Δ	40		50n	N-PL	Si	200J	TO51	A
66	TC0914	480MΔ	40nØ	20n$		40nØ	360m	1.0 Ø	10mØ	30 #Δ	3.5	4.5p		N-PE	Si	200J		
67#	ST82	500M§Δ			13n	18nØ	360m	1.0 Ø	10mØ	50 #Δ		4.0pØ		N-PE	Si		TO18	Ø
68	ST6110	500M			10n		300m	500mØ	10mØ	20	117			N-PE	Si	200J	TO18	
69#	BSW79	500M§Δ	12nØ		13n	18nØ	200m	2.0 Ø	100mØ	20 #Δ	25	2.5p		N-PEt	Si	125J	X64	A
70#	BSX20%	500Mt Δ	12nØ		13n	18nØ	360m	1.0 Ø	10mØ	40 Δ	30	4.0p$		N-PE	Si	200J	TO18	Ø
71#	BSX20Ø	500M§Δ	12nØ		13n	21nØ	360m	1.0 Ø	10mØ	120 Ø	30			N-PE S	i	200J	TO18	AØ
72	FK2369A	500M§Δ	12nØ			18nØ	350mØ	1.0 Ø	10mØ	66 #	5.0	4.0pØ		N-PE	Si	200S	u17b	
73	FV2369A	500M§Δ	12nØ			18nØ	350mØ	1.0 Ø	10mØ	66 #	5.0	4.0pØ		N-PE	Si	200S	u5b	
74	FK2894	500M§	60nØ			75nØ	200m$	300mØ	10mØ	55 #	7.0	3.3p		PDPE	Si	200J	u17b	
75	FV2894	500M§	60nØ			75nØ	200m$	300mØ	10mØ	55 #	7.0	3.3p		PDPE	Si	200J	u5b	
76#	2SC679H	600M§Δ	13nØ		10n		300m	1.0 Ø	10mØ	40 Δ		3.5pØ		N-PE	Si	175	TO18	
77	2N709/51	600M§Δ	15nØ			15nØ	300m	.50 Ø	10mØ	20 †Δ	100	3.0pØ		N-E	Si	200J	TO51	
78	10E1051	600M§	15nØ		6.0n	15nØ			10mØ	120 Ø	3.5			N-PE	Si		u40	
79	2N2475/51	600M§Δ	20nØ			15nØ	300m	.50 Ø	50mØ	20 †Δ	20	3.0pØ		N-E	Si	200J	TO51	
80#	78EP	600M§Δ	20nØ			15nØ	300m	400mØ	20mØ	150 Ø		3.0pØ		N-PEt	Si	125J	u46	A
81	2N2368/51	640MΔ	12nØ	10n$		15nØ	300m	1.0 Ø	10mØ	40		4.0pØ		N-PE	Si	200J	TO51	
82	CS2368	640MΔ	12nØ	10n$	15nØ		360m	1.0	10mØ	40		4.0p		N-PE	Si	200J	TO18	AØ
83#	BSW80	675M§	12nØ		13n	18nØ	200m	350mØ	10mØ	63 #		2.3p		N-PEt	Si	125J	X64	A
84	RT2459	700M§Δ	20n	20n	100n	40n	360m	400mØ	10mØ	300 Ø	10	4.5pØ		P-PEØ	Si	200J	TO18	
85	PMT023	750M	20n	110n$			100m	1.0 Ø	10m	20 Δ		6.0pØ		N-ME	Si	150S	u7	
86	PMT123	750M	20n$	110n			250mØ	1.0 Ø	10m	20 #Δ		6.0pØ		N-ME	Si	150S	u6	
87	PMT216	750M	20n				100mØ	1.0 Ø	10m	20 #Δ		5.0p		N-ME	Si	150J	TO51	
88	PMT223	750M	20n				250mØ	1.0 Ø	10m	20 #Δ		6.0pØ		N-ME	Si	150J	TO51	
89#	2SC613	750M§	25nØ			25nØ	360m	1.0 Ø	10mØ	80 †		1.5p		N-PE	Si	200J	TO18	
90	2N2475/46	800M§	7.3nØ			9.0nØ	400m	400mØ	20m	50	20	2.4p		N-PE	Si	200J	TO46	
91	2N2369/51	800MΔ	12nØ	13n$		18nØ	300m	1.0 Ø	10mØ	80		4.0pØ		N-PE	Si	200J	TO51	
92	TC2369A	800MΔ	12nØ		13n	18nØ	360m	1.0 Ø	10mØ	80 Δ	20	4.0pØ		N-PE	Si	200J		
93	2N709A/46	800M§	15nØ			15nØ	400m	500mØ	10mØ	60	100	3.0pØ		N-PE	Si	200J	TO46	
94	2N709A/51	800M§	15nØ			15nØ	300m	500mØ	10mØ	60	100	3.0pØ		N-PE	Si	200J	TO51	
95#	BSV50E	800M	20nØ			35nØ	60mØ	1.0	10mØ	20 Δ		3.6p		P-PE	Si	125J		D
96#	BSV50F	800M	20nØ			35nØ	60mØ	1.0	10mØ	20 Δ		3.6p		P-PE	Si	125J		E
97#	BSV50G	800M	20nØ			35nØ	60mØ	1.0	10mØ	20 Δ		3.6p		P-PE	Si	125J		F
98	RT2462	800M§Δ	20nØ	9.0n	9.0n	20nØ	300m	1.0 Ø	30mØ	15 #Δ	100m	3.0pØ		P-PE	Si	200J		
99	ST6120	1000M§			10n		300m	500mØ	10mØ	20 †	117			N-PE	Si	200J	TO18	
100	MM2550	1000M§Δ	2.5nØ			2.5nØ	150m	5.0 Ø	10mØ	20 Δ		3.0pØ	50p	P	Ge	100J	TO18	A
101	MM2552	1000M§Δ	3.5nØ			2.5nØ	300m	5.0 Ø	25mØ	30 Δ		3.0pØ	50p	P	Ge	100J	TO5	A
102	MM2554	1000M§Δ	3.5nØ			2.5nØ	300m	5.0 Ø	40mØ	20 Δ		4.0pØ	50p	P	Ge	100J	TO5	A
103	2N2784/51	1000M§Δ	9.0nØ		5.0n	4.0n	300m	1.0 Ø	30mØ	20 †Δ	85	3.0pØ		N-E	Si	200J	TO51	A
104	2N2784/52	1000M§Δ	9.0nØ		5.0n	9.0nØ	300m	500mØ	10mØ	40 Δ	87	3.0pØ		N-PE	Si	200J	TO52	
105	2N955A	1000M§	10n	4.5nt	5.0nt	8.0nt	150m	500mØ	30m	50				N-ME	Ge	100J	TO18	
106	2N955	1000M§	11nt	20nt	45nt	50nt	150m	500m	30m	30 Δ	16		4.0n	N-ME	Ge	100	TO18	
107	2N3633/52	1300M§Δ	9.0nØ		5.0n	9.0nØ	300m	500mØ	10mØ	150 Ø	70	2.5pØ		N-PE	Si	200J	TO52	
108	TIX895	2500M§	5.0nt Ø			6.0ntØ	75m	1.0 Ø	10mØ	20 Δ	25	1.5pØ		P-DEM	Ge	100J	u25	
109	2N2446	3000M§Δ	30uØ		35uØ		90	2.0 Ø	5.0mØ	15 Δ				P	Ge	125	TO3	
110	2N2379	4000Mt	30uØ			60uØ	150 Ø	2.0 Ø	5.0 Ø	37 Ø	60m			P	Si	150J	TO36	Ø

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	2 TYPE No.	1 CATEGORY STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	USAF526ES090P	9 P	Si	RO3	3	P-450mW;ISR-.61 max;RB1B2-6.6Kohms max;Ip-5.88uA max.
2	2N1468	1 N-FA	Si	TO5		Pc-.25W max; Ip-2.0A max; tr-10ns
3	CK273	1 N	Si	TO5		Pc-.25W max; BVCBO-25V.
4	CK277	1 N	Si	TO5		Pc-.25W max; BVCBO-90V.
5	NS1116†	1 N	Si	TO18Ø	AØ	ICBO-1.0uA max;Ih-300mA;VH-9.0V;IA-2.0mA;Ip-2.5A;BVCES-190V min.
6	PADT51	1 P-AD	Ge	TO7		Pc-85mW;BVEBO-2.0V;tr-1.0ns.
7	SYL3013	1 N-EM	Si	TO18		Pc-.30W; BVCBO-75V; BVEBO-5.0V; Ic-.20A; hFE-20 min at Ic-10 ma.
8	2N592	2 P	Ge	TO5		BVCBO-20V;hib-30;hob-2.0umhos;ICBO-5.0uA;hfe-25;Cob-35pf;NF-16db.
9	2N593	2 P	Ge	TO9		Pc-150mW; BVCBO-20V; hFE-80;Ø-.50 deg. C/mW; ICBO-25 ua.
10#	ASY60	2 P-AΔ	Ge	R47		Pc-.20W max; BVCBO-20V; fab-11.0Mc; hFE-50; ICBO-5uA max.
11#	ASY64	2 P-AΔ	Ge	R47		Pc-.20W max; BVCBO-30V; fab-3.5Mc; hFE-35; ICBO-3uA max.
12#	ASY66	2 P-AΔ	Ge	R47		Pc-.20W max; BVCBO-30V; fab-6.0Mc; hFE-35; ICBO-5uA max.
13	C301A	2 P-Δ	Si	TO5		Pc-.25 max; BVCBO-70V; IC-50mA MAX: FAB-.04Mc.
14	GT34S	2 P	Ge	TO22		Pc-150mW;BVCBO-40V;BVEBO-40V;ICBO-100ua;hfe-15 at 10ma.
15	TK20C	2 P-A	Ge	R47		Pc-.20W Max; BVCBO-30V; fab-6.0
16#	TK21C	2 P-AΔ	Ge	R47		Pc-.20W max; BVCBO-30V; fab-2.0Mc; hFE-21; ICBO-3uA max.
17#	TK24C	2 P-A	Ge	R47		Pc-.20W max; BVCBO-30V; fab-3.5
18#	TK25C	2 P-A	Ge	R47		Pc-.20W max; BVCBO-20V; fab-11.0
19	2N2457	3 PL	Si	TO5		Vpo-5.0V max; ho-125u mhos min; hi-50M ohms Typ.
20	2N2458	3 PL	Si	TO51		Vpo-5.0V max; ho-125u mhos min; hi-100M ohms Typ.
21	2N2620	3 N	Si	TO5		BVDGO-50V min;gm-3.0m mhos; Vpo-20V max; IGSO-.10uA max.
22	2N2794	3 P-D	Si	TO5		Pc-.30W; BVDGO - 20V; IG - 50mA; IGSS - 2.0nA.
23	3N98	3 N	Si	RO38c		Pc-150mW at 85C;Vds-32V; Id-7.7mA max. at 12V-VDS
24	3N99	3 N	Si	RO38c		Pc-150mW at 85C;Vds-32V; Id-10.5mA max. at 12V-VDS
25	4Z9-4Z12	3	Si	TO5		N-Channel
26	11005	3 P	Si	L18		Pc-1.0W;BVDSS-30V min;IDSS-35nA max;gFS-650 umho. Matched pair
27	31004	3 P	Si			4 Leaded TO5 or TO46; BVDSS-25V; IDSS-100mA max; gFS-850u mhos.
28	51009	3 P	Si	RO38k		BVDSS-20V min;IDSS-10nA max;gFS-70 umho;Vgs-20V max.
29	C610	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-20V max;ho-100u mhos min;IGDO-.10ua;BVGD-40V max.
30	C611	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-20V max;ho-200u mhos min;IGDO-.10ua;BVGD-40V max.
31	C612	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-20V max;ho-400u mhos min;IGDO-.10ua;BVGD-40V max.
32	C613	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-20V max;ho-800u mhos min;IGDO-.10ua;BVGD-40V max.
33	C614	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-10V max;ho-100u mhos min;IGDO-.10ua;BVGD-40V max.
34	C615	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-10V max;ho-500u mhos min;IGDO-.10ua;BVGD-40V max.
35	C620	3 N	Si	TO5		Pc-.25W max;Vpo-10V max;ho-50u mhos min;IGDO-.10ua;NF-5.0db max.
36	C621	3 N	Si	TO5		Pc-.25W max;Vpo-10V max;ho-50u mhos min;IGDO-.10ua;NF-5.0db max.
37	C622	3 N	Si	TO5		Pc-.25W max;Vpo-10V max;ho-50u mhos min;IGDO-.10ua;NF-2.0db max.
38	C623	3 N	Si	TO5		Pc-.25W max;Vpo-10V max;ho-50u mhos min;IGDO-.10ua;NF-2.0db max.
39	C624	3 N	Si	TO5		Pc-.25W max;Vpo-10V max;ho-50u mhos min;IGDO-.10ua;NF-.50db max.
40	C625	3 N	Si	TO5		Pc-.25W max;Vpo-10V max;ho-50u mhos min;IGDO-.10ua;NF-.50db max.
41	C631	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-30V max;ho-125u mhos min;BVGD-150V max.
42	C632	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-40V max;ho-100u mhos min;BVGD-250V max.
43	C633	3 N-Δ	Si	TO5		Pc-.25W max;Vpo-40V max;ho-100u mhos min;BVGD-350V max.
44	C640	3 N	Si	OV10		Pc-.675W max;Vpo-10V max;ho-1000u mhos min;IGDO-.10ua
45	C641	3 N	Si	OV10		Pc-.675W max;Vpo-10V max;ho-2000u mhos min;IGDO-.10ua
46	C642	3 N	Si	OV10		Pc-.675W max;Vpo-10V max;ho-3000u mhos min;IGDO-.10ua
47	C643	3 N	Si	OV10		Pc-.675W max;Vpo-10V max;ho-4500u mhos min;IGDO-.10ua
48	C644	3 N	Si	OV10		Pc-.675W max;Vpo-10V max;ho-6000u mhos min;IGDO-.10ua
49	C650	3 N-ØΔ	Si	TO5		Pc-.25W max; ICBO-.10ua
50	C651	3 N-ØΔ	Si	TO5		Pc-.25W max; ICBO-.10ua
51	C652	3 N-ØΔ	Si	TO5		Pc-.25W max; ICBO-.10ua
52	C653	3 N-ØΔ	Si	TO5		Pc-.25W max; ICBO-.10ua
53	DA102	3 N	Si	L21		Diff.Ampl.;Pc-.75W both sides;BVDGO-50V min;IGSS-.10nA max.
54	DA402	3 N	Si	L21		Diff.Ampl.;Pc-.75W both sides;BVDGO-50V min;IGSS-.25nA max.
55	DPT200	3 N	Si	RO38h		Insulated Gate;VDSS-25V;gm-1500uV min;Enhancement Type
56	DPT201	3 N	Si	RO38h		Insulated Gate;VDSS-25V;gm-1500uV min;Depletion Type
57	FE250	3 N-PL	Si	TO18		BVDGO-200V min;gm-400u mhos; Vpo-10V max; IDGO-2.0nA max.
58	FE252	3 N-PL	Si	TO18		BVDGO-200V min;gm-300u mhos; Vpo-5.0V max; IDGO-2.0nA max.
59	FE254	3 N-PL	Si	TO18		BVDGO-200V min;gm-200u mhos; Vpo-2.5V max; IDGO-2.0nA max.
60	FE350	3 N-PL	Si	TO18		BVDGO-200V min;gm-1000u mhos; Vpo-10V max; IDGO-5.0nA max.
61	FE352	3 N-PL	Si	TO18		BVDGO-200V min;gm-700u mhos; Vpo-5.0V max; IDGO-5.0nA max.
62	FE354	3 N-PL	Si	TO18		BVDGO-200V min;gm-500u mhos; Vpo-2.5V max; IDGO-5.0nA max.
63	FE1600	3 N	Si	R82		BVDGO-30V min; IGSS-2.0nA max; Ron-50 ohms max; Vp-15V max.
64	FG34	3 N-PL	Si	TO5		BVDGO-50V min;gm-1.0m mhos; Vpo-20V max; IDGO-.10uA max.
65	FG35	3 N-PL	Si	TO5		BVDGO-100V min;gm-1.0m mhos; Vpo-20V max; IDGO-.10uA max.
66	FG36	3 N-PL	Si	TO5		BVDGO-150V min;gm-1.0m mhos; Vpo-20V max; IDGO-.10uA max.
67	FG37	3 N-PL	Si	TO5		BVDGO-200V min;gm-1.0m mhos; Vpo-20V max; IDGO-.10uA max.
68	FSP400	3 PL	Si			Vpo-3.0V; VDGO-30V; IDGO-.10 na max.
69	MM2102†	3 N-MOS	Si	RO38y		Pd-300mW;VDS-25V;Id-30mA;VGS(TH)4Vmax;Yfs-1000umhos min.
70	MM2103†	3 P-MOS	Si	RO38y		Pd-300mW;VDS-25V;Id-30mA;VGS(TH)5Vmax;Yfs-1000umhos min.
71#	OC800	3	Si			Pc-.075W max; BVCBO-50V; gm-.05 umhos min; Igs-.10 ua
72	P1003	3 P-PL	Si	RO38L		BVDGO-50V min; gm-1000 umhos min; Vp-3.0V max; Pd-.30W
73	P1004	3 P-PL	Si	RO38L		BVDGO-50V min; gm-2500 umhos min; Vp-5.0V max; Pd-.30W
74	P1005	3 P-PL	Si	RO38L		BVDGO-50V min; gm-3500 umhos min; Vp-8.0V max; Pd-.30W
75	PT320	3 MOSΔ S	i	RO38y		Pd-120mW;BVDSS-25V;BVGSS-50V;Yfs-2500umhos;VG8th)-3.0V max.
76	SA2345	3 N-PL	Si	RO38f		BVDGO-50V min;IGSS-.50nA max;RP-.80mohms min;IG-.20nA max.
77#	ST3	3	Ge			Pc-200mW max; fab-200Mc; BVCBO-100V; TJ-85 deg. C max.
78	SU2000	3 N-PL	Si	RO38d		BVDGO-50V min;gm-7500umhos max;Vp-4.0V max;CDG-.35pt max.
79	SU2020	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.95-1.0;gm1/gm2-.95-1.0
80	SU2021	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
81	SU2022	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
82	SU2023	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.80-1.0;gm1/gm2-.80-1.0
83	SU2024	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.95-1.0;gm1/gm2-.95-1.0
84	SU2025	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
85	SU2026	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
86	SU2027	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.80-1.0;gm1/gm2-.80-1.0
87	SU2030	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-300umhos min;gm1/gm2-.95-1.0
88	SU2031	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-400umhos min;gm1/gm2-.95-1.0
89	SU2033	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-2500umhos min;gm1/gm2-.95-1.0
90	SU2035	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-2500umhos min;gm1/gm2-.95-1.0
91	SU2037	3 N-PL	Si	TO59		BVDGO-100V min;gm-20,000umhos min;Vp-15V max;Pd-10W at Tc 25 deg.
92#	THP169	3	Ge			Max. Pc-80mW; BVCBO-80V;Derate Free Air 3.3 deg.C/mW;85J
93#	THP170	3	Ge			Max. Pc-50mW; BVCBO-50V;Derate Free Air 3.3 deg.C/mW;85J
94#	THP171	3	Ge			Max. Pc-80mW; BVCBO-80V;Derate Free Air 3.3 deg.C/mW;85J
95#	THP172	3	Ge			Max. Pc-50mW; BVCBO-50V;Derate Free Air 3.3 deg.C/mW;85J
96	TIS11	3 P-MOS	Si	RO38e		BVGSS-30V;IDSS-.01mA max;Yfs-800umhos min;Ciss-8.0pf max.
97	TIX690	3	Si	TO12		Max. Coll diss. 500mW; Max temp. 175 deg. C. J.
98	TIX881	3 P-A	Ge	TO11		Pd-150mW; BVDGO-40V min; Yis-.40u mho max; Yfs-400u mho min.
99	TIX882	3 P-A	Ge	TO11		Pd-150mW; BVDGO-40V min; Yis-.40u mho max; Yfs-600u mho min.
100	TIX883	3 P-A	Ge	TO11		Pd-150mW; BVDGO-40V min; Yis-.40u mho max; Yfs-800u mho min.
101	TIXS11	3 PMOS	Si	RO38y		Pd-300mW;BVDSS-30V;IDSS-10nA;VGS(th)-3.0V min;Yfs-800umhos min.
102	u1327	3 N-PL	Si	TO18		BVDGO-50V min;gm1-1100umhos;gm2-800umhos;Vps-4.0V max;Pd-300mW.
103	u3000	3 N-PL	Si	TO18		BVDGO-30V min;gm-300umhos min;Vp-15V max;Pd-225mW.
104	u3001	3 N-PL	Si	TO18		BVDGO-30V min;gm-250umhos min;Vp-10V max;Pd-60mW.
105	u3002	3 N-PL	Si	TO18		BVDGO-30V min;gm-200umhos min;Vp-510V max;Pd-15mW.
106	u3010	3 N-PL	Si	TO18		BVDGO-30V min;gm-750umhos min;Vp-15V max;Pd-350mW.
107	u3011	3 N-PL	Si	TO18		BVDGO-30V min;gm-600umhos min;Vp-10V max;Pd-120mW.
108	u3012	3 N-PL	Si	TO18		BVDGO-30V min;gm-500umhos min;Vp-5.0V max;Pd-30mW.
109	U287	3 N-PL	Si	TO5		BVDGO-30V min;RON-50 ohms max;Vp-15V max;IGSS-2.0nA max.
110	U1327	3 N-PL	Si	L36		BVDGO-50V min;gm1-1100umhos;gm2-800umhos;Vps-4.0V max;Pd-.30W

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY	STRUC-TURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	U3000	3	N-PL	Si	TO18		BVDGO-30V min;gm-300umhos min;Vp-15V max;Pd-.225W
2	U3001	3	N-PL	Si	TO18		BVDGO-30V min;gm-250umhos min;Vp-10V max;Pd-.06W
3	U3002	3	N-PL	Si	TO18		BVDGO-30V min;gm-200umhos min;Vp-5.0V max;Pd-.015W
4	U3010	3	N-PL	Si	TO18		BVDGO-30V min;gm-750umhos min;Vp-15V max;Pd-.35W
5	U3011	3	N-PL	Si	TO18		BVDGO-30V min;gm-600umhos min;Vp-10V max;Pd-.12W
6	U3012	3	N-PL	Si	TO18		BVDGO-30V min;gm-500umhos min;Vp-5.0V max;Pd-.03W
7	X1004	3		Si			4 leaded TO5 or TO46; BVDSS-50V; IDSS-100nA max; gfs-1000u mhos
8#	ZFT16	3	N-PL	Si	L40		Pt-.35W;Vpo-5.0V;BVDS-50V;IDO-6.0mA;BVDG-65V.
9#	ZFT18	3	N-PL	Si	L40		Pt-.35W;Vpo-5.0V;BVDS-100V;IDO-6.0mA;BVDG-100V.
10	2N1019	4	PNN	Ge-Si			Pc-10W max;BVCBO-30V; Ic-3.0A max;hFE-15000 Typ/VCE-5.0V;Ic-1.0A.
11	2N1020	4	NPP	Ge-Si			Pc-10W max;BVCBO-30V; Ic-3.0A max;hFE-15000 Typ/VCE-5.0V;Ic-1.0A.
12	2N67	5		Δ		Ge	Max. Coll. Dist. 100mW; Ic 50mA;BVEB 50V; Max. Temp 85 deg.CS
13#	2SB43	5	P-A	Ge	TO1		fab-1.0Mc; BVCBO-25V; IC-.05A max; hFE-70 at IC-.05A
14#	AC154/AC157	5	A	Ge	TO1		Matched pair of AC154 and AC157
15#	AC166/AC168	5	A	Ge	TO1		Matched pair of AC166 and AC168
16	GA53080	5	Δ	Ge			Max. Coll. Dist. 250mW; FaB 10mC;BVCB 100V; Ic 50mA;BVEB 100V
17#	2AT128	6	P-A	Ge	TO1		Matched Pair of AT128; hFE/hFE2-.83 max.
18	2N214MP	6	N-A	Ge			Max. Coll. Diss. 180mW;FaB.80mC;Max.Temp.85J;Matched pair of2N214
19	2N3162	6	N	Si	L8		VCEO-25V max;ICBO-10nA max;hFE-50 min,hFE1/hFE2-1.0 max.
20	2N3514	6	N	Si	X26		PT-1.4W both sides;VCBO-80V max;VCEO-40V max;VEBO-5.0V max.
21	2N3517	6	N	Si	X26		PT-1.4W both sides;VCBO-100V max;VCEO-60V max;VEBO-7.0V max.
22	2N3519	6	N	Si	X26		PT-1.4W both sides;VCBO-60V max;VCEO-30V max;VEBO-7.0V max.
23	2N3523	6	N	Si	X26		PT-1.4W both sides;VCBO-70V max;VCEO-55V max;VEBO-7.0V max.
24	2N3587	6	N	Si	L19		Pc-300mW ea;BVCBO-60V ea;hFE-500 max/Ic-1mA;BVCEO-45V ea;BVEBO-5V
25	2N3941	6	N	Si	L2d		BVCBO-60V;IC-50mA;Pt-1.5W;VBE(1-2)-3.0mV;hFE1/2-.90min.
26	2N3942	6	N	Si	L2d		BVCBO-60V;IC-50mA;Pt-1.5W;VBE(1-2)-10mV;hFE1/2-.80min.
27	2N3943	6	N	Si	L2j		BVCBO-60V;IC-50mA;Pt-.75W;VBE(1-2)-3.0mV;hFE1/2-.90min.
28	2N3944	6	N	Si	L2j		BVCBO-60V;IC-50mA;Pt-.75W;VBE(1-2)-10mV;hFE1/2-.80min.
29	2N4042	6	N	Si	L2m		BVCBO-60V;IC-10mA;Pt-.50W;VBE(1-2)-3.0mV;hFE1/2-.90min.
30	2N4043	6	N	Si	L2m		BVCBO-45V;IC-10mA;Pt-.50W;VBE(1-2)-5.0mV;hFE1/2-.80min.
31	2N4099*	6	N	Si	L2m		VBE(1-2)-5.0mV max;IB(1-2)-10nA max;ΔIB(1-2)-.70nA/°C max.
32#	2OC26	6	P-A	Ge	TO3		Matched Pair of OC26;hFE1/2-.15 at IE-3.0A.
33	2SB30	6	P-A	Ge	TO3		BVCBO-15V; Ic-.50A max; fae-7.0Mc; hFE-68/Ic-.20A
34	2SB31	6	P-A	Ge	TO3		BVCBO-15V; Ic-.50A max; fae-7.0Mc; hFE-115/Ic-.20A
35#	2SB145	6	P-A	Ge	TO3		BVCBO-30V; Ic-1.0A max; fae-7.0Mc; hFE-37/Ic-1.0A
36#	2SB146	6	P-A	Ge	TO3		BVCBO-30V; Ic-1.0A max; fae-7.0Mc; hFE-75/Ic-1.0A
37#	2SC96	6	N-PE	Si	L16		VCEO-15V;IC-150mA;PC-500mW max;hFE1/hFE2-.80-1.0 at 1mA
38	2SFT212	6	P	Ge	TO3	CØ	BVCBO-30V;Pc-30W at Tc;hFE-40 at FC-2.0A;fab-200kc min.
39#	2T3041	6					Max. Thermal Res. 3.0 oC/mW; Matched Pair 2T3031
40#	2T3042	6					Max. Thermal Res. 3.0 oC/mW; Matched Pair 2T3032
41#	2T3043	6					Max. Thermal Res. 3.0 oC/mW; Matched Pair 2T3033
42#	2xOC308	6	P	Ge			Pair of OC308
43#	2xOC318	6	P	Ge			Pair of OC318
44	3N96*	6	P Ø	Si	L24b		VGS(1-2)-100mV max;ΔVGS(1-2)/ΔT-1mV/deg.C;Yfs1/2-.95 min.
45	3N97*	6	P Ø	Si	L24b		VGS(1-2)-200mV max;ΔVGS(1-2)/ΔT-8mV/deg.C;Yfs1/2-.95 min.
46	4JD12X043	6	N-PE	Si	L2b		Pt-800mW; Two 2N2193 Transistors
47	4JD12X047	6	N-PE	Si	L2b		Pt-600mW; Two 2N2195 Transistors
48#	12A8	6	N	Si	L2b		Pt(Both Sides)-500mW;hFE1/hFE2-.60min;VBE1-VBE2-15mVmax.
49	12A304	6	N-PL	Si	X26		Pt-250mWea;ICBO-2.0nA max;hFE-25min;Vbe1/Vbe2-5.0mVmax;fT-60Mcmin.
50	12A308	6	N-PL	Si	X26		Pt-1.4W both sides;VCBO-50Vmin;hFE match-40%;VBE match-15mV.
51	12A904	6	N-PL	Si	X27		Pt-250mWea;ICBO-2.0nA max;hFE-25min;Vbe1/Vbe2-5.0mVmax;fT-60Mcmin.
52	12G301	6	N-PL S	i X	26		Pt-1.4W Both Sides;VCBO-35V min;ICBO-20nA.
53	12G302	6	N-PL	Si	X26		Pt-1.4W Both Sides;VCBO-35V min;ICBO-20nA.
54	12H301	6	N-PL	Si	X26		Pt-1.4W Both Sides;VCBO-30V min;ICBO-10nA.
55	12H302	6	N-PL	Si	X26		Pt-1.4W Both Sides;VCBO-30V min;hFE Match-.80/1.0;VBE Match 10mV.
56	12H303	6	N-PL	Si	X26		Pt-1.4W Both Sides;VCBO-25V min;hFE Match-.85/1.0
57	12J301	6	N-PL	Si	X26		Pt-1.4W Both Sides;VCBO-40V;ICBO-.40uA.
58	12J302	6	N-PL	Si	X26		Pt-1.4W Both Sides;VCBO-40V;ICBO-.40uA;hFE Match-.80/1.0
59	12J303	6	N-PL	Si	X26		Pt-1.4W Both Sides;VCBO-40V;ICBO-.40uA;hFE Match-.80/1.0
60	A520	6	N-PL	Si	RO52g		VCBO-80V;Ic-50mA max;Pt-1200mW(both sides);VBE1-VBE2-3mV;hFE-40 min.
61	A521	6	N-PL	Si	RO52g		VCBO-80V;Ic-50mA max;Pt-1200mW(both sides);VBE1-VBE2-3mV;hFE-100 min.
62	A640*	6	NØ	Si	X36a		VBE1/VBE2-3.0mV max;hFE1/hFE2-1.0 max;Pt-.30W(both);IC-30mA.
63	A641*	6	NØ	Si	X36a		VBE1/VBE2-3.0mV max;hFE1/hFE2-1.0 max;Pt-.30W(both);IC-30mA.
64	A642*	6	NØ	Si	X36a		VBE1/VBE2-3.0mV max;hFE1/hFE2-1.0 max;Pt-.30W(both);IC-30mA.
65	ASA2	6	N-PL	Si	L2		Pc-.75W; BVCBO-60V; BVEBO-7.0V; HFE-45min at IC-10ma, VCE-10V.
66	ASA1000	6	N-PL	Si	TO5		Pc-.50W max. BVCBO-60V;hFE1/hFE2-1.25max; VBE1-VBE2-10 mV max.
67	ASA1001	6	N-PL	Si	TO5		Pc-.50W max. BVCBO-60V;hFE1/hFE2-1.1 max; VBE1-VBE2-20 mV max.
68#	BFX10	6	P-PE	Si	L2d		Pt-.55W;ICBO-10nA max;hFE-2 min;hFE bal .80 min;VBE diff 3mV max.
69#	BSY42	6	N-PE	Si	L2		Pc-.70W max; BVCBO-20V; Ic-200mA;hFE-25-120;ft-200 min.
70#	BSY43	6	N-PE	Si	L2		Pc-.70W max; BVCBO-15V; Ic-200mA;hFE-30-120;ft-300 min.
71	CD91*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
72	CD92*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
73	CD93*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
74	CD94*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
75	CD95*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
76	CD96*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
77	CD97*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
78	CD98*	6	P-E	Si	L17a		hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
79	CD912*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
80	CD922*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
81	CD932*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
82	CD942*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
83	CD952*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
84	CD962*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
85	CD972*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-5.0mV max;ΔVBE1/2-10uV/°C max.
86	CD982*	6	P-E	Si	TO46	AØ	hFE1/2-.80 min;VBE1/2-10mV max;ΔVBE1/2-20uV/°C max.
87	DFNA3-50*	6	N-E	Si	TO18		Pt-300mW both sides;VGS(1-2)-50mV;gfs1/2-.95umhos min.
88	DFNA3-100*	6	N-E	Si	TO18		Pt-300mW both sides;VGS(1-2)-100mV;gfs1/2-.95umhos min.
89	DP1001*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-5.0mV;ΔVGS(1-2)/ΔT-5#UV/°C.
90	DP1002*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-15mV;ΔVGS(1-2)/ΔT-10uV/°C.
91	DP1003*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-5.0mV;ΔVGS(1-2)/ΔT-25uV/°C.
92	DP1004*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-15mV;ΔVGS(1-2)/ΔT-25uV/°C.
93	DP1005*	6	P*	Si	TO71		gm1/2-.90 min;VGS(1-2)-25mV;ΔVGS(1-2)/ΔT-50uV/°C.
94	DP1006*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-5.0mV;ΔVGS(1-2)/ΔT-10uV/°C.
95	DP1007*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-15mV;ΔVGS(1-2)/ΔT-10uV/°C.
96	DP1008*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-5.0mV;ΔVGS(1-2)/ΔT-25uV/°C.
97	DP1009*	6	P*	Si	TO71		gm1/2-.95 min;VGS(1-2)-15mV;ΔVGS(1-2)/ΔT-25uV/°C.
98	DP1010*	6	P*	Si	TO71		gm1/2-.90 min;VGS(1-2)-2.0mV;ΔVGS(1-2)/ΔT-50uV/°C.
99	HA7807	6	P-A	Si	TO5		Pair of HA7806;Vo-2.0mV max.
100	HA7809	6	P-A	Si	TO5		Pair of HA7808; Vo-1.5mV max.
101	KY4042	6	N	Si	u36		BVCBO-60V;IC-10mA;Pt-.50W;ΔVBE-3.0uV/OC;VBE(1-2)-3.0mV;hFE1/2-.90min.
102	KY4043	6	N	Si	u36		BVCBO-45V;IC-10mA;Pt-.50W;ΔVBE-10uV/OC;VBE(1-2)-3.0mV;hFE1/2-.80min.
103	KY4099	6	N	Si	u36		BVCBO-55V;IC-10mA;Pt-.50W;ΔVBE-5.0uV/OC;VBE(1-2)-5.0mV;hFE1/2-.85min.
104	MA7807	6	P-A	Si	TO5	A	Matched pair of HA7806;ΔVoff-100uVmax.
105	MA7809	6	P-A	Si	TO5	A	Matched pair of HA7808;ΔVoff-50uVmax.
106	MD1123	6	P	Si	L2		hFE-30/120 at Ic-100uA;(VBE1-VBE2) max.-10mV at Ic-100uA
107	MD1123F	6	P	Si	X22		hFE-30/120 at IC-100uA;(VBE1-VBE2) max.-10mV at IC-100uA.
108	MD1124	6	P	Si	L2		hFE-30/120 at Ic-100uA;(VBE1-VBE2) max.-10mV at Ic-100uA
109	MD1124F	6	P	Si	X22		hFE-30/120 at IC-100uA;(VBE1-VBE2) max.-10mV at IC-100uA.
110	MD1125	6	P	Si	L2		hFE-30/120 at Ic-100uA;(VBE1-VBE2) max.-5.0mV at Ic-100uA

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] CATEGORY	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	MD1125F	6	P	Si	X22		hFE-30/120 at IC-100uA;(VBE1-VBE2) max.-5.0mV at IC-100uA.
2	MD1133	6	N-EA	Si	L2d		Pt(Both Sides)-600mW;VCBO-60V;hFE-30 min at IC-150mA and VCE-5V.
3	MD1133F	6	N-EA	Si	L2f		Pt(Both Sides)-350mW;VCBO-60V;hFE-30 min at IC-150mA and VCE-5V.
4	ME501†	6	N-PE	Si	L2		BVCEO-10V; BVEBO-3.0V;ICBO-10nA max at VCB-10V;hFE-60min/IC-100uA
5#	NKT450X2	6	P	Ge	TO3		BVCBO-36V; hFE-30 min. at 1.0A; ICBO-100uA at 1.5V.
6	NS7000	6	N	Si	X17		Pd-200mW;BVCEO-45V min;hFE-125 at 10uA;hFE1/hFE2-.90 min.
7	NS7001	6	N	Si	L2		Pd-300mW;BVCEO-45V min;hFE-125 at 10uA;hFE1/hFE2-.90 min.
8	NS7070	6	N-PL	Si	X23		Pt(both sides)-200mW;hFE1/2-.90min;VBE(1-2)-5.0mVmax.
9#	OC740M	6	P	Si	RO66		50uV max; Voff-2.0mV max.
10#	OC740Q	6	P	Si	RO66		50uV max; Voff-2.0mV max; Quadruple.
11	RT3501	6	P-PL	Si	TO46		Matched Pair of RT3500; Pd-400mW
12	SA2254	6	N	Si	L8a		hFE1/hFE2-.8-1.0;VBE1-VBE2-10mV at Ic-100uA;BVCBO-60V min.
13	SA2255	6	N	Si	L8a		BVCBO-45V min;hFE1/hFE2-.8-1.0;VBE1-VBE2-10mV at Ic-50uA
14#	TA-M93	6	NPN		TO5		Dual 2N930;10% hFE match;5.0mV VBE match;hFE at 10uA-50 min.
15	U205*	6	N	Si	TO71		Pt-.30W;IG(1-2)-5.0nA max;VGS(1-2)-5.0mV max;gfs1/2-.95 min.
16	U206*	6	N	Si	TO71		Pt-.30W;IG(1-2)-5.0nA max;VGS(1-2)-10mV max;gfs1/2-.95 min.
17	U207*	6	N	Si	TO71		Pt-.30W;IG(1-2)-5.0nA max;VGS(1-2)-15mV max;gfs1/2-.95 min.
18	UD1000	6	P-PE	Si	L38		Pt(Both Sides)-200mW;BVCBO-50V;Vo(1-2)-100uV max;IB and IC-20mA.
19	UD2000	6	P-PE	Si	L2n		Pt-400mW;BVCBO-50V;VBE1/2-5mV max;hFE1/2-.90 min;ΔVBE1-2-10uV/degC
20	2N318	7	P-A	Ge			Pc-50mW; VCE-12V max; Sens.-25uA/ft can;fab-750kc.
21	2N469	7	P	Ge	X42		BVCBO-6.0V;hfe-50;hie-3.0kohms;ICBO-15uA;Sens-15uA/FC;Cob-30pf.
22	2N469A	7	P-A	Ge			Pc-.05W max;BVCBO-20V;Photo-Sens-14.9ua/fc max;Area-.0011 sq. in.
23	2N577	7	P	Ge			Pt-25mW; IC-10mA; Idark-300uA; Photosens-.30A/lumen.
24	2N1392	7	P-A	Ge			Pc-.05W max;BVCBO-20V;Photo-Sens-6.9ua/fc max;Area-.0011 sq. in.
25	2N1393	7	P-A	Ge			Pc-.05W max;BVCBO-20V;Photo-Sens-15ua/fc min;Area-.0011 sq. in.
26	2N1394	7	P-A	Ge			Pc-.05W max;BVCBO-10V;Photo-Sens-7.0ua/fc;Area-.0011 sq. in.
27	800	7	N-G	Ge			Max. Coll. Dist. 65mW; BVCE 20V; IC 5.0mA; Max. Temp. 75 deg.C.A.
28#	BPY62	7	N-PE	Si	X8a	A§	Pt-.20W;IC-1.0mA min. at B-1000 lux;Sens.-1.0uM;VCE-15V.
29	EIP	7	P	Ge			Idk-10uA; Ilt-10mA; Sens.-300uA/1m.
30#	ES3501	7	P-A	Ge	R71		Pc-36mW at 45 deg. C;BVCBO-10V; Ic-10mA max;Photosens-20uA/fc.
31#	ES3511	7	P-A	Ge	R88		Pc-50mW; BVCBO-25V; IC-20mA max; Photosens-1.0uA/Lux
32	FF400*	7	N-EΔ	Si	TO72	DH	IG(Light)-15nA/FC min;ID(Light)-30uA/FC typ;tr-30ns;tf-50ns.
33	FPN100	7	N-PL	Si			Phototrans;Pd-75mW;ID-.10uA max;IL1-.80mA min.
34	FSP5	7	N-PL	Si	X8		Pc-.50W max; BVCBO-100V; Photo-Sens-1.0ua/fc min.
35	HPA4202	7	N	Si	X40		BVCEO-25V; fae-120Kc; Cob-9.0pf; hFE-400 typ.
36	ME510	7	N-PE	Si	TO18		BVCBO-10V; Photosens-2.0ua/fc min. at VCE-5.0V, IB-0.0
37#	OS13	7	P	Ge	X1		Pc-15mW max; BVCBO-30; Ic-2mA max.
38#	OS15	7	N	Si	X1		Pc-30mW max;BVCEO-30Vmax;Ic-200uA max; Photo-Sens-1uA/500 Lumen.
39#	OS16	7	N	Si	X1		Pc-30mW max;BVCEO-30Vmax;Ic-200uA max; Photo-Sens-4uA/500 Lumen.
40#	OS17	7	N	Si	X1		Pc-30mW max;BVCEO-30Vmax;Ic-200uA max; Photo-Sens-7uA/500 Lumen.
41	PD3L	7		Ge			Pc-.10W max; BVCBO-50V; IC-5.0ma max.
42	PD6	7		Ge			Pc-20mW max; BVCBO-50V; IC-5.0ma max.
43#	Ph241*	7	N	Si	TO18		IGSS (light)-5.0nA/FC;ID (light)-10uA/FC.
44#	Ph241N*	7	N	Si	TO18		IGSS(light)-5.0nA/FC;ID(light)-10uA/FC.
45#	Ph242*	7	N	Si	TO18		IGSS (light)-5.0nA/FC;ID (light)-16uA/FC.
46#	Ph242N*	7	N	Si	TO18		IGSS(light)-5.0nA/FC;ID(light)-16uA/FC.
47#	Ph243*	7	N	Si	TO18		IGSS (light)-5.0nA/FC;ID (light)-25uA/FC.
48#	Ph243N*	7	N	Si	TO18		IGSS(light)-5.0nA/FC;ID(light)-25uA/FC.
49#	Ph244*	7	N	Si	TO18		IGSS (light)-5.0nA/FC;ID (light)-40uA/FC.
50#	Ph244N*	7	N	Si	TO18		IGSS(light)-5.0nA/FC;ID(light)-40uA/FC.
51	3N25	8	PGD	Ge			Pc-25mW max; fab-200Mc; Ic-2.0mA max.
52	3N35A	8	N	Si	TO12		Pd-.125W;Rsat-300 ohms;ries-20 ohms min;Coep-3.0pf
53	3N56	8	N-Δ	Si	TO5		Pc-.15W max; BVCBO-18V; IC-30ma max.
54	3N57	8	N-Δ	Si	TO5		Pc-.15W max; BVCBO-18V; IC-30ma max.
55#	3S001	8	N-D	Si			Pc-125mW;BVCBO-30V;Ic-10mA; Gain 18 db ICBO-.2uA
56#	3S002	8	N-GD	Si	TO12		Pc-.125W max; fab-100Mc; BVCBO-30V; Ic-10mA max.
57#	3S003	8	N-D	Si			Pc-125mW;BVCBO-30V;Ic-10mA; Gain 20 db ICBO-.2uA
58#	3S004	8	N-GD S	i	si TO1	2	Pc-.125W max; fab-150Mc; BVCBO-30V; Ic-10mA max.
59	GTA3	8	P	Ge			Pc-2.5mW; fab-200Mc; BVCBO-15V; Ic-2.0mA max.
60	JAN2N489	9	P-N	Si	R33		Pc-.45W max;VE-60V max;ISR-.62 max;RBBO-6.8k Ω max.
61	JAN2N490	9	P-N	Si	R33		Pc-.45W max;VE-60V max;ISR-.62 max;RBBO-6.8k Ω max.
62	JAN2N491	9	P-N	Si	R33		Pc-.45W max;VE-60V max;ISR-.68 max;RBBO-6.8k Ω max.
63	JAN2N492	9	P-N	Si	R33		Pc-.45W max;VE-60V max;ISR-.68 max;RBBO-6.8k Ω max.
64	JAN2N493	9	P-N	Si	R33		Pc-.45W max;VE-60V max;ISR-.75 max;RBBO-6.8k Ω max.
65	JAN2N494	9	P-N	Si	R33		Pc-.45W max;VE-60V max;ISR-.75 max;RBBO-6.8k Ω max.
66	2N2213	9	P	Si			Pc-.45W; Rbb-9.1 ohms max; VB2B1-40V; VB2E-60V.
67	2N2307	9	P	Si	R86		Pc-250mW;Rbb-9.1kohms max;Ip-2.0A max.
68	2N3406	9	P	Si	R33		Pc-.45W;VB2E-60V max;VB2B1-70V max;VEB1(SAT)-5.0V max;IV-8mA max.
69	2N3482	9	P	Si	RO33 G	F	Pc-.40W;RBBO-6.8kohms max;n-.62 max;IV-4mA min;IP-2.0uA max.
70	2N3679	9	P	Si	L7a		Pt-250mW;ISR-.80 max;RBBO-9.1Kohms max;Iv-4.2mA min;VOB1-4.0V min.
71	5B24	9	P	Si	TO5		P-450mW; ISR-.47 min; Ip-25uA max;Iv-8.0mA min;IB2 Mod.-6.8-30
72	5B25	9	P	Si	TO5		P-450mW; ISR-.47 min; Ip-25uA max; Iv-8.0mA min;IB2 Mod.-6.8-30
73	5C28	9	NP	Si	TO18		Pc-.30W; ISR-.75 max; Rb1b2-12K ohms; IV-8.0mA min; Ip-20mA max.
74	5C29	9	NP	Si	TO18		Pc-.30W; ISR-.86 max; Rb1b2-12K ohms; IV-.20mA min; Ip-12mA max.
75	5C30	9	NP	Si	TO18		Pc-.30W; ISR-.75 max; Rb1b2-12K ohms; IV-.20mA min; Ip-12mA max.
76	5E29	9			TO18Ø		Ip-25uA max;Iv-4.0mA min;IEO-12uA;N-.68 min., .82 max.
77	5G514	9			TO18		Ip-25uA max;Iv-8.0mA min;IEO-12uA;N-.47 min., .62 max.
78	5G515	9			TO18		Ip-25uA max;Iv-8.0mA min;IEO-12uA;N-.47 min., .62 max.
79	5G516	9			TO18		Ip-6.0uA max;Iv-8.0mA min;IEO-.20uA;N-.47 min., .62 max.
80	551B	9	N	Si	TO18		Pc-.45W;ISR-.62 max;Rb1b2-6.8K ohms;Iv-.20ma min;Ip-2.0ma max.
81	BB3	9		Si	TO5		Pt-450mW;RBB-10kΩ max;VBB-35V max;n-62 max.
82	BB4A	9		Si	TO5		Pt-450mW;RBB-10kΩ max;VBB-35V max;n-78 max.
83	BB4B	9		Si	TO5		Pt-450mW;RBB-10kΩ max;VBB-35V max;n-78 max.
84	BB5	9		Si	TO5		Pt-450mW;RBB-12kΩ max;VBB-60V max;n-75 max.
85	BB5A	9		Si	TO5		Pt-450mW;RBB-12kΩ max;VBB-60V max;n-62 max.
86	BB5B	9		Si	TO5		Pt-450mW;RBB-12kΩ max;VBB-60V max;n-68 max.
87	BB5C	9		Si	TO5		Pt-450mW;RBB-12kΩ max;VBB-60V max;n-75 max.
88	D5E29	9	N	Si	R33a	CA	Pt-.30W;RBB-9.1kΩ max;IV-25mA max;n-.82 max;Ip-25uA max.
89	D5E35	9	N	Si	R33a	CA	Pt-.30W;RBB-9.1kΩ max;IV-10mA typ;n-.82 max.
90	D5E36	9	N	Si	R33a	CA	Pt-.30W;RBB-9.1kΩ max;IV-10mA typ;n-.82 max.
91#	TAM93	9	NPN		TO5		Dual 2N930;10% hFE match;5.0mV VBE match;hFE at 10uA-50 min.
92	TIS01	9	P	Si	X20a		Pc-.30W;ISR-.75 max;RBB-9.1Kohms max;Ip-5.0uA max.
93	TIS02	9	P	Si	X20a		Pc-.30W;ISR-.82 max;RBB-9.1Kohms max;Ip-2.0uA max.
94	2N2181	10	P	Si	TO1		Pc-150mW;VCBO-25V max;VCEO-25V max;VEBO-25V max;Voff-4mV max.
95	2N2182	10	P	Si	TO1		Pc-150mW;VCBO-25V max;VCEO-25V max;VEBO-25V max;Voff-4mV max.
96	2N2183	10	P	Si	TO1		Pc-150mW;VCBO-15V max;VCEO-10V max;VEBO-15V max;Voff-3mV max.
97	2N2184	10	P	Si	TO1		Matched Pair of 2N2183.
98	2N2871*	10	P	Si	L17j		Voff-1.5mV max;Voff(1-2)-200uV max;hFE-15 min.
99	2N2872*	10	P	Si	L17j		Voff-1.5mV max;Voff(1-2)-200uV max;hFE-15 min.
100	2N3586*	10	PΔ*	Si	X37		Pt-.25W max;ΔVoff-500uV max;rs(on)-75 ohm max.
101	4JD12C101	10	N-PE	Si	L1a		BVCBO-25V;Pt-.50W;Vo(1-2)-50uV;ICBO-10nA;ft-50Mc;Io(1-2)-2.0nA
102	4JD12C102	10	N-PE	Si	L1a		BVCBO-25V;Pt-.50W;Vo(1-2)-50uV;ICBO-10nA;ft-50Mc;Io(1-2)-2.0nA
103	4JD12X013	10	N-PL	Si	L11		4-2N2356 transistors;Vo(1-2)-50uV;ICBO-10nA;BVEEO-20V.
104	4JD12X070	10	N-PL	Si	L11		4-2N2356A transistors;Vo(1-2)-50uV;ICBO-10nA;BVEEO-20V.
105	40460*	10	N-MOS	Si	TO72	DR§	Voff-0.0V;IDS(off)-.50nA at VDS-1.0V;VGS-10V;Pt-150mW.
106#	BSX31	10	N-PLΔ	Si	RO38a		Pt-.15W max;ΔVoff-.30mV max;IE1IE2-.30nA max;Rd-200 ohms max.
107	HA7804	10	P-A	Si	TO5		Vo-3.0mV max; Rsat-25 ohms max; Tr-15 usec max.
108	HA7806*	10	P-A	Si	TO5		BVCBO-15V;ICBO-50nA;fab-1.0MHz;Cob-90pf;Voff-2.0mV;trr-15usec.
109	HA7808*	10	P-A	Si	TO5		BVCBO-15V;ICBO-50nA;fab-1.0MHz;Cob-70pf;Voff-1.5mV;trr-15usec.
110	HA7810	10	P-A	Si	TO5		Vo-1.5mV max; Rsat-30 ohms max; Tr-15 usec max.

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] CATEGORY STRUC-TURE		MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	HA7815	10	P-A	Si	TO5		Vo-1.5mV max; Rsat-25 ohms max; Tr-15 usec max.
2	MA3227	10	P	Si	L2		Matched; Voff-.20mV; BVCBO,BVEBO,BVCEO-35V
3	MA7805	10	P-A	Si	TO5		Vo-3.0mVmax; ΔVo-100uV max; Rsat-25 ohms max; Tr-15 usec max.
4	MA7811	10	P-A	Si	TO5		Vo-1.5mVmax; ΔVoff-100uV max; Rsat-30 ohms max; Tr-15 usec max.
5	MA7816	10	P-A	Si	TO5		Vo-1.5mVmax; ΔVoff-100uV max; Rsat-25 ohms max; Tr-15 usec max.
6	MA7817	10	P-A	Si	TO5		Vo-1.5mVmax; ΔVoff-50uV max; Rsat-25 ohms max; Tr-15 usec max.
7	ME509	10	N-PE	Si	L2		BVEBO-5.0V; Voff-.50uV at IB-150ua, IE-0.0
8	NS3000	10	N	Si	RO38a		Voff-200uV max; Rd-50 ohms max; BVEEO-10V; IEEO-.50na
9	NS3001	10	N	Si	RO38a		Voff-50uV max; Rd-50 ohms max; BVEEO-10V; IEEO-.50na
10	NS3039	10	N	Si	L15aØ		Max.(ΔVo/T-.30uV/deg.C;Rd-50 ohms;IE1E2O-2.0nA;Vo-200uV.)
11	NS3040	10	N	Si	L15aØ		Max.(ΔVo/T-.30uV/deg.C;Rd-50 ohms;IE1E2O-2.0nA;Vo-100uV.)
12	NS3041	10	N	Si	L15aØ		Max.(ΔVo/T-.30uV/deg.C;Rd-50 ohms;IE1E2O-2.0nA;Vo-50uV.)
13	NS3050	10	N	Si	RO38a		Voff-100uV max; Rd-50 ohms max; BVEEO-10V; IEEO-.50na
14	NS3051	10	N	Si	RO38a		Voff-100uV max; Rd-100 ohms max; BVEEO-10V; IEEO-.50na
15	NS3052	10	N	Si	RO38a		Voff-200uV max; Rd-100 ohms max; BVEEO-10V; IEEO-.50na
16	NS3053	10	N	Si	RO38a		Voff-200uV max; Rd-100 ohms max; BVEEO-6.0V; IEEO-.50na
17	NS3108	10	N	Si	L15a		Pd-100mW max; IE ° IB-10mA max; BVEBO-30V min.
18	NS3109	10	N	Si	L15a		Pd-100mW max; IE ° IB-10mA max; BVEBO-30V min.
19	NS3110	10	N	Si	L15a		Pd-100mW max; IE ° IB-10mA max; BVEBO-30V min.
20	NS3300	10	N-PE	Si	TO18Ø	AØ	VCEoff-6.0mV max;Inverse hFE-3.0 min;VECoff-1.0mV max.
21	NS6208	10	N	Si			Voff-100uV;rd-50Ω max;BVEECS-12V;IEECS-5.0nA max.
22	NS6209	10	N	Si			Voff-50uV;rd-50Ω max;BVEECS-12V;IEECS-5.0nA max.
23	NS6210	10	N	Si	X16		BVCBO-30Vmin;BVCEO-15Vmin;hFE(INV)-2.0min;Voff-1.0mVmax.
24	NS6211	10	N	Si	X16		BVCBO-30Vmin;BVCEO-25Vmin;hFE(INV)-3.0min;Voff-2.0mVmax.
25	NS7630	10	N	Si	L38a		Pt-200mW;BVEIE20-15Vmin;IEIE2CS-2nAmax;Voff-200uV.
26	NS8000	10		Si	TO77		Pt-500mW; Voff-100uV; BVCBO-12V; Freq.Range 50-1500Kc.
27	NS8003	10		Si	TO77		Pt-500mW; Voff-100uV; BVCBO-12V; Freq.Range 0-50Kc.
28#	OC740	10	P	Si	RO66		Available as matched pair or quad-50uV max;Voff 2mV max.
29#	OC742	10	P	Si	RO66		Available as matched pair or quad-50uV max; Voff 5mV max.
30	SA100	10	N-PL	Si	L2		Pc-.50W; BVCBO-60V max; BVCEO-30Vmax;hFE1/hFE2-.90;VBE1-VBE2-.02V
31#	SAC40*	10	P-A	Si	TO1		VO-2mV max;IO-.05uA max;VCE-15V;hFE-2.5 min at 3V;1mA;4Mc/s
32#	SAC40A*	10	P-A	Si	TO1		VO-2mV max;IO-.05uA max;VCE-15V;hFE-1.5 min at 3V;1mA;4Mc/s
33#	SAC40B*	10	P-A	Si	TO1		VO-2mV max;IO-.05uA max;VCE-15V;hFE-2.5 min at 3V;1mA;4Mc/s
34#	SAC42*	10	P-A	Si	TO1		VO-5mV max;IO-.05uA max;VCE-25V;hFE-2.5 min at 3V;1mA;4Mc/s
35#	SAC42A*	10	P-A	Si	TO1		VO-5mV max;IO-.05uA max;VCE-25V;hFE-2.5 min at 3V;1mA;4Mc/s
36#	SAC42B*	10	P-A	Si	TO1		VO-5mV max;IO-.05uA max;VCE-25V;hFE-2.5 min at 3V;1mA;4Mc/s
37#	SAC44*	10	P-A	Si	TO1		VO-10mV;IO-.01uA max;VCB-5V;hFE-1 min at 3V;1mA;4Mc/s
38#	SPC40*	10	N-PE	Si	TO18		VO-2mV max;VCBO-25V max;VEBO-6Vmax
39#	SPC42*	10	N-PE	Si	TO18		VO-5mV max;VCBO-25V max;VEBO-6Vmax
40#	SPC50*	10	N-PE	Si	RO38		ΔVO-50uV max; rd-125 ohms typ; Double emitter device
41#	SPC51*	10	N-PE	Si	RO38		ΔVO-100uV max; rd-125 ohms typ; Double emitter device
42#	SPC52*	10	N-PE	Si	RO38		ΔVO-200uV max; rd-125 ohms typ; Double emitter device
43#	SSA43A*	10	P-A	Si	TO1		Symmetrical hFE-10 min at VE2E1-3V; IE-1mA
44#	SSA46*	10	P-A	Si	TO1		Symmetrical hFE-7 min at VE2E1 orVE1E2-3V; IE-1mA
45#	SSA46A	10	P-A	Si	TO1		Symmetrical VE1E2(SAT)-500mV max at IC-5mA;IB-1mA
46#	SSA48*	10	P-A	Si	TO1		Symmetrical hFE- 7 min atVE2E1 or VE1E2-3V; IE-1mA
47	ST5610	10	N-PE	Si	TO72	GDØ	BVCBO-25V;BVEEO-18V;Voff-50uV;rs-50Ω;Ton and Toff-500ns.
48	ST5611	10	N-PE	Si	TO72	GDØ	BVCBO-25V;BVEEO-18V;Voff-100uV max;rs-100Ω;Ton and Toff-500ns.
49	ST5612	10	N-PE	Si	TO72	GDØ	BVCBO-25V;BVEEO-12V;Voff-50uV max;rs-50Ω;Ton and Toff-500ns.
50	ST5613	10	N-PE	Si	TO72	GDØ	BVCBO-25V;BVEEO-12V;Voff-100uV max;rs-100Ω;Ton and Toff-500ns.
51	ST5614	10	N-PE	Si	TO72	GDØ	BVCBO-15V;BVEEO-8.0V;Voff-150uV max;rs-150Ω;Ton and Toff-500ns.
52	TW135	10	P-PE	Si	TO18	A	Voff-1.0mV max at IB-1.0mA;rS-20 ohms;Cib-6.0pf max.
53	U89*	10	P	Si	TO18 D	U	Cdg1-.90pf max; Cdg2-1.8pf typical at Vds-5V,Vg1s-0V,V-Vg2s-1V.
54	UD1001	10	P-PE	Si	TO90		Dual Emit Pr; Pt-200mW(both sides); BVE1E2O-30V; BVEBO-30.
55	2N626	11	N	Ge-Si			Pc-10W max; BVCBO-30V; Ic-3.0A max;hFE-18000 min/VCE-5.0V;Ic1.0A.
56	2N676	11	P	Ge-Si			Pc-10W max; BVCBO-30V; Ic-3.0A max;hFE-15000/VCE-5.0V; Ic1.0A.
57	2N3230	11	NΔ	Si	L35		Pd-25W;VCEV-80V;IC-7A max;hFE-1000 min. at IC-5A;Ton-350ns max.
58	2N3231	11	NΔ	Si	L35		Pd-25W;VCEV-100V;IC-7A max;hFE-1000 min. at IC-5A;Ton-350ns max.
59	4JD12X010	11	N-PL	Si	L29a		Contains 2-2N1613 transistors;PT-300mW/Transistor.
60	4JD12X011	11	N-PL	Si	L27		Contains 3-2N1613 type transistors;Darlington input and output.
61	4JD12X012	11	N-PL	Si	L28		4-2N1613 type transistor;Darl.Diff.Amp.;hFE1/2-.80 to 1.25
62	4JD12X014	11	N-PL	Si	L26		Contains 3-2N1613 typ transistors;Darlington input and output.
63	4JD12X132	11	N-PE	Si	L4		Darlington Amp;BVCBO-80V;BVCEO-60V;BVEBO-15V;Pt-.50W.
64	22MPG5	11	P	Ge	L5		BVCBO-10V; BVCEO-4.0V; Ic-.50A; fab-40 Mc.
65	22MPS5	11	P	Si	L5		BVCBO-20V; BVCEO-5.0V; Ic-.50A; fab-10 Mc.
66#	A25Q	11	N-PE	Si			PC-600mW; VCBO-30V max; hFE-500 min at 5V;1mA
67	A431*	11	N-PE	Si	L29a		hFE(pulsed)-20 min. at IC-100mA;ft(pulsed)-1.0GHz min.
68	ARA46P	11	P	Si			Pc-40W max;BVCBO-40V;IC-3.0A max;hfe-10000 Typ/VCE-40V;IC-3.0A.
69	ASA31	11	N-PL	Si	TO18		2N1613 in isolated TO18 Package; BVCBO-75V.
70	ASA51	11	N-PL	Si	TO5		2N1889 in isolated TO5 Package; BVCBO-100V.
71	ASA1003	11	N-PL	Si	TO18		Pc-.50W max; BVCBO-60V;hFE-5000 min/Ic-10 mA; ICBO-10nA max.
72	ASA1004	11	N-PL	Si	TO18		Pc-.50W max; BVCBO-60V;hFE-20,000 min/Ic-10 mA; ICBO-10nA max.
73#	BFY21	11	N-PL	Si	L2		Pc-.70W max; BVCBO-40V; Ic-200mA; hFE-64; fT-200Mc/s min.
74	CA3018	11	N	Si	L60		BVCEO-15V;BVCBO-20V;hFE-70 at IC-1mA;ft-400MHz.
75	CA3036	11	N	Si	L65		Darlington Array;Pt-300mW;BVCBO-30max;hFE-82typ at IC-1mA.
76	D16P3	11	N	Si	L3e		Darlington Amp. hFE-2.0k min;Pt-320mW;Zin-650k;BVCEO-20V.
77	D16P4	11	N	Si	L3e		Darlington Amp; hFE-7.0k-15k typ;Pt-320mW;Zin-650k;BVCEO-20V.
78	EM500	11	N	Ge-Si			Pc-10W max; BVCBO-30V; Ic-3.0A max;hFE-26000 min/VCB-5.0V;Ic1.0A.
79	EM600	11	P	Ge-Si			Pc-10W max; BVCBO-30V; Ic-3.0A max;hFE-26000 min/VCB-5.0V;Ic1.0A.
80	FSP22	11	N-PL	Si	L3		Pc-.50W max;BVCBO-100V;hFE-1600 min/Ic-10mA;ICBO-.005ua;BVCEO-60V
81	FSP598	11		Si	TO18		BVCBO-25V; BVEBO-4.0V; ICBO-.60uA; hFE-20 min.
82	MA3228	11	P	Si	L2		Diff. Ampl. Matched; ΔhFE-20%; ΔVBE-10mV; BVCEO-90V
83	MA3229	11	P	Si	L2		Diff. Ampl. Matched; ΔhFE-20%; ΔVBE-15mV; BVCEO-60V
84	MA3230	11	P	Si	L2		Diff. Ampl. Matched; ΔhFE-40%; ΔVBE-20mV; BVCEO-35V
85	MA3231	11	P	Si	L2		Darlington Ampl.; hFE:100-1000; BVCEO-90V.
86	MA3232	11	P	Si	L2		Darlington Ampl.;hFE:100-1000; BVCEO-35V.
87	MA3233	11	P	Si	L2		Darlington Ampl.;hFE:1000-5000; BVCEO-90V.
88	MA3234	11	P	Si	L2		Darlington Ampl.;hFE:1000-5000; BVCEO-35V.
89	NS7100	11	N-PL	Si	L4a		BVCBO-80V; BVCEO-60V; BVEBO-15V; hFE-2000 min.
90	RM3001	11	N-PL	Si	TO18Ø		Darl.Ampl; Pc-1.0W max; BVCBO-80V; hFE-900 min. at Ic-1.0mA
91	RM3002	11	N-PL	Si	TO18Ø	AØ	Photo Darl. Ampl; Pc-1.8W max; BVCBO-60V; Sens-25ua/fc
92	RM3010	11	N-PL	Si	TO18Ø		Darl.Ampl; Pc-1.0W max; BVCBO-80V; hFE-2000 min. at Ic-30mA
93	SA102	11	N-PL	Si	TO18		Pc-.50W; BVCBO-60V max; BVCEO-30V max;hFE-5000; VCES-1.0V max.
94	SA107	11	N-PL	Si	TO18		Pc-.50W; BVCBO-60V max; BVCEO-30V max;hFE-20,000; VCES-1.0V max.
95	SP8411	11	N-PL	Si	L8		Pc-.30W;BVCBO-45V;hFE-60 min. at Ic-10uA; VCE-5.0V.
96	SP8411A	11	N-PL	Si	L8		Pc-.30W;BVCBO-60V;hFE-60 min. at Ic-10uA; VCE-5.0V.
97	SP8412	11	N-PL	Si	L8		Pc-.30W;BVCBO-45V;hFE-150 min. at Ic-10uA; VCE-5.0V.
98	SP8412A	11	N-PL	Si	L8		Pc-.30W;BVCBO-60V;hFE-150 min. at Ic-10uA; VCE-5.0V.
99	SP8413	11	N-PL	Si	L8		Pc-.30W;BVCBO-45V;hFE-60 min. at Ic-10uA; VCE-5.0V.
100	SP8413A	11	N-PL	Si	L8		Pc-.30W;BVCBO-60V;hFE-60 min. at Ic-10uA; VCE-5.0V.
101	SP8414	11	N-PL	Si	L8		Pc-.30W;BVCBO-45V;hFE-150 min. at Ic-10uA; VCE-5.0V.
102	SP8414A	11	N-PL	Si	L8		Pc-.30W;BVCBO-60V;hFE-150 min. at Ic-10uA; VCE-5.0V.
103	SP8588	11	N-PL	Si	L8		Pc-.30W;BVCBO-45V;hFE-60 min. at Ic-10uA; VCE-5.0V.
104	SP8588A	11	N-PL	Si	L8		Pc-.30W;BVCBO-45V;hFE-150 min. at Ic-10uA; VCE-5.0V.
105	SST610	11	N-DM	Si	L3a		Darl Ampl;Pc-.50Wmax;BVCBO-60V;IC-.50Amax;hFE-12000;IC-50mA.
106#	TA-D93	11	NPN		TO5		Darlington Compound Amp;Pc-.36W;BVCBO-45V;hFE min-5000 at 1.0mA.
107#	TAB101	11	N	Ge	L64		Pt-.1W;VBE-5mV;hFE-20 min;ft-100MHz.
108#	TAD93	11	NPN		TO5		Darlington Compound Amp;PC-360mW;BVCBO-45V;hFE min-5000 at 1.0mA.
109	TI155	11	N-D	Si	L3d		Pt-3W; BVCBO-120V; BVCEO-80V;IC10A; hFE-1,200
110	CG1	12	N	Si	TO18		Pd-500mW;BVCEO-35V min;hFE-50 at 1mA ° 200 deg.C;fT-60Mc min.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	2N5276*	13	NΔ	Si	TO18	AØ	Post Rad. for ICBO-20uA max;hFE-20 min;VCE(sat)-1V max;all pulsed.
2	BR100A*	13	N	Si	R50	AØ	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
3	BR100C*	13	N	Si	TO59	A	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
4	BR100E*	13	N	Si	MT50a	AØ	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
5	BR100F*	13	N	Si	MT50a	A	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
6	BR101A*	13	N	Si	R50	AØ	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
7	BR101C*	13	N	Si	TO59	A	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
8	BR101E*	13	N	Si	MT50a	AØ	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
9	BR101F*	13	N	Si	MT50a	A	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
10	BR200A*	13	N	Si	MT50a	AØ	Post Radiation of 100T nvt;hFE-15 min;at VCE-5.0V.
11	BR200B*	13	N	Si	MT50a	AØ	Post Radiation of 100T nvt;hFE-15 min;at VCE-5.0V.
12	BR201A*	13	N	Si	MT50a	A	Post Radiation of 100T nvt;hFE-10 min;at VCE-5.0V.
13	BR201B*	13	N	Si	MT50a	A	Post Radiation of 100T nvt;hFE-10 min;at VCE-5.0V.
14	NS9608*	13	N-PE	Si	TO60		After irradiation of 100T n/cm.sq.;ICBO at 15V-30uA;hFE-10 min.
15	NS9609*	13	N-PE	Si	TO61		After irradiation of 100T n/cm.sq.;ICBO at 20V-250uA;hFE-8.0 min.
16	NS9609A*	13	N-PE	Si	TO61		Post Radiation of 300T NVT;ICBO at 20V-250uA;hFE-8.0 typ.
17	NS9726*	13	N-PE	Si	RO38w		After irradiation: ICBO at 15V-.10uA;Ft-600Mc;hFE-20 min.
18	RT10	13	N	Si	TO18		Max Rad Level 1000T nvt;Post Rod Vp-10Vmax;IDSS-30%max;gfs-25%.
19	RT20	13	N-MOS	Si	TO18		Max Rad Level 1000T nvt;Post Rod Vp-13Vmax;ΔIDSS-60%max.
20	V120RH*	13	NPL	Si	ZA15		All parameters measured after 10kT nvt Irradiation

MANUFACTURERS AND THEIR ADDRESSES

Manufacturers in order of code letters

SPACE-SAVERS UTILIZED IN THIS MANUFACTURER LISTING

(*) — Manufacturer not a current commercial producer of transistors — address is that last recorded in our files. Company may or may not be active at this address.

see (code) — Indicates one or more of the following changes have occurred since original letter code was used: (1) Change of code; (2) Change of manufacturer name; (3) Purchase by or combination with another manufacturer.

(*) **ADV — Advanced Research Assoc.,** Box 68, Kensington, Md. 20795

(*) **AEG — Allgemeine Elektricitaets - Gesellschaft** — See TFKG

AEIE — Assoc. Elec. Industries — see AEIL

(*) **AEIL — AEI-Thorn Semiconductors Ltd.,** Carholm Road, Lincoln, England

AKER — A/S Akers Electronics, Forskningsvn, 1, Horten, Norway

(*) **AME — Advanced Micro-Electronics,** 99 Bald Hill Road, Cranston, R. I. 02910

(*) **AMF — American Machine & Foundry, Semicon. Dept.,** P. O. Box 128, Vandalia, Ohio 45377

AML — Amelco Semiconductor, P. O. Box 1030, Mountain View, Calif. 94040

AMP — Amperex — see APX

ANOA — Anodeon Semiconductor Div. Hamilton St., Huntingdale, Victoria, Australia

APX — Amperex Electronic Corp., Semicon. Div., Slatersville, R. I. 02876

ASC — American Semiconductor Corp., 4 North Hickory Ave., Arlington Heights, Illinois 60004

ASMB — Assoc. Semicon. Mfrs. — see MULB

ATEI — ATES, via Tempesta 2, Milan, Italy

ATLB — Associated Transistor Ltd. — See MULB

BACE — Bendix — see BEN

BELI — Bharat Electronics Limited, Jalahalli P. O., Bangalore 13, South India

BEM — Bogue — see BOG

BEN —— Bendix Semiconductor Division South Street, Holmdel, N. J. 07733

BNT — Burns & Towne Inc., 18-36 Granite Street, Haverhill, Mass. 01830

(*) **BOG — Bogue Electric Mfg. Co.,** 100 Pennsylvania Ave., Paterson, N. J. 07503

BRDB — G. & E. Bradley — see LUCB

BRUB — Brush Clevite — see STCB

BTHB — British Thomson-Houston — see AEIL

(*) **BUR — Burroughs Electronic Components Div.,** Mt. Bethel Road, Plainfield, New Jersey 07060

(*) **CBS — CBS Electronics,** 900 Chelmsford Street, Lowell, Mass. 01851

CDC — Continental Device Corp., 12515 Chadron Avenue, Hawthorne, California 90250

CDLF — Compagnie Industrielle Francaise Des Tubes Electroniques, 50 Rue J. P. Timbaud, Courbevoie 92, France

(*) **CGEF — COMPELEC,** 13 Rue d'Enghien, Paris 10, France

CLE — Clevite — see ITT

CNS — Continental Semi-Conductor Inc., 59 Central Avenue, East Farmingdale, New York 11735

(*) **CPC — C. P. Clare Transistor Corp.,** 260 Glen Head Road, Glen Head, Long Island, New York 11545

CRY — Crystalonics, 147 Sherman St., Cambridge, Mass. 02140

CSC — Clark Semicon. — see NSC

CSF — American Radio Co., Inc. 445 Park Avenue, New York, N. Y. 10022

DEL — Delco Radio Div., G. M. C., Kokomo, Indiana 46901

DES — Delta Semiconductors, 225 Paularino Ave., Costa Mesa, Calif. 92626

DETM — Delsa-Toshiba S. A., Calzada Aurora No. 303, Cuautitlan, Edo de Mexico

DIC — Dickson Electronics Corp., 310 South Wells Fargo Avenue, Scottsdale, Arizona 85252

(*) **EBAS — Ebauches S. A.,** Faubourg Hopital 1, Neuchatel, Switzerland

ECD — United Aircraft Corp., Electronic Components Div., Trevose, Penna. 19047

(*) **EEVB — English Electric Valve Co.,** Waterhouse Lane, Chelmsford, England

(*) **ELBR — Electronica Nacional Braileira,** 525 Rua Thiers, Sao Paulo, Brazil

(*) **ELE — Electromation Co.,** 4254 Glencoe Ave., Venice, Calif. 90291

ETC — Electronic Transistors Corp., 153-13 Northern Blvd., Flushing, N. Y. 11354

FCAJ — Fujitsu Ltd., 1015 Kamikodanaka, Kawasaki City, Kanagawa, Japan

FERB — Ferranti Ltd., Gem Mill, Chadderton, Oldham, Lancs., England

FSC — Fairchild Semiconductor, 313 Fairchild Dr., Mountain View, Calif. 94040

(*) **FTC — Fanon Transistor Corp.,** 439 Frelinghuysen Ave., Newark, N. J. 07114

FTHF — French Thomson-Houston — see SESC

GECB — General Electric Ltd. — see MULB

(*) **GEM — Great Eastern Mfg. Co.,** 163 Remsen Ave., Brooklyn, N. Y. 11212

GESY — General Electric Company, Semiconductor Products Dept., Electronic Comp. Div., Northern Lights, Syracuse, N. Y. 13201

GIC — General Instrument Corporation, P. O. Box 600, Hicksville, New York 11802

GME — General Micro-Electronics — See PHIL

GSI — General Sensors, P. O. Box 231, Athens, Texas 75751

GTC — General Transistor — see GIC

HAC — Hughes Aircraft — see HUG

HITJ — Hitachi, Ltd., Nippon Building No. 8, 2-chome, Ohtemachi, Chiyoda-ku, Tokyo, Japan

(*) **HIVB — Hivac Ltd.,** Stonefield Way, Victoria Road South Ruislip, England

HON — Honeywell Inc. — See SOD

HPA — HP Associates, 620 Page Mill Road, Palo Alto, Calif. 94304

Manufacturers continued

HSC — Helios Semiconductor Company,
500 Dyer Road, Santa Clara, California 92707

(*) **HSD — Hoffman Semiconductor,**
1001 Arden Drive, El Monte, Calif. 91731

(*) **HSDC — Hoffman Semiconductor** — See HSD

(*) **HUG — Hughes Aircraft Co.,**
P. O. Box 278 Newport Beach, Calif. 92663

HUGS — Hughes International (U.K.) Ltd.,
Glenrothes, Fife, Scotland

IDC — International Diode Corp.,
90 Forrest Street, Jersey City, N. J. 07304

INRC — International Rectifier Corporation,
233 Kansas Street, El Segundo, Calif. 90245

INTG — Intermetall Halbleiterwerk der,
Deutsche ITT - Ind. GmbH, Germany

ITC — Industro Transistor Corp.,
35-10 36th Ave., Long Island City, N. Y. 11106

ITT — ITT Semiconductors,
3301 Electronics Way, West Palm Beach,
Florida 33047

KMC — KMC Semiconductor Corp.,
Parker Road, R. D. 2, Long Valley, N. J. 07853

(*) **KOKJ — Kobe Kogyo Corp.,** Hyogo-ku, Kobe, Japan

KSC — KSC Semiconductor Corp.,
KSC Way (Katrina Road), Chelmsford,
Massachusetts 01824

(*) **LCTF — Laboratoire Central de Telecommunications,**
46 Avenue de Breteuil, Paris 7e, France

LTTF — Lignes Telegraphiques & Telephoniques,
Conflans-Sainte-Honorine (Seine Et Oise) France

LUCB — Joseph Lucas (ELEC.), Ltd.
Mere Green Works, Mere Green Road
Four Oaks, Sutton Coldfield
Warwickshire, England

(*) **MAL — P. R. Mallory & Co.,** Indianapolis, Ind. 62832

MATJ — Matsushita Electronics Corp.,
Saiwaicho 1-1 Takatsuki, Osaka, Japan

(*) **MIC — Microwave Associates,**
Burlington, Mass. 01803

MIFI — Microfarad — see MISI

MIN — Honeywell — see HON

MINA — Miniwatt Electronics Div.,
Philips Electrical Pty. Ltd.,
20 Herbert St., Artarmon, N. S. W., Australia

MISI — MISTRAL, via Carnevali 113, Milan, Italy

MITJ — Mitsubishi Electric Corp., 2-12 Marunouchi,
Chiyoda-ku, Tokyo, Japan

MOTA — Motorola Semiconductor Products,
5005 E. McDowell Road, Phoenix, Ariz. 85005

(*) **MSC — MicroSemiconductor Corp.,**
11250 Playa Court, Culver City, Calif. 90230

MST — M. S. Transistor Corp., 80-02 51st Avenue,
Elmhurst, New York 11373

MULB — Mullard Ltd., Mullard House,
Torrington Place, London W.C. 1, England

(*) **NAC — National Aircraft Corp.,**
3411 Tulare Ave., Burbank, Calif. 91502

NAS — National Semicon. — see NSC

NECJ — Nippon Electric Co.,
1753 Shimonumabe, Kawasaki City, Japan

NIPJ — Nippon Electric Co., — See NECJ

(*) **NORC — Northern Electric Co.,** Advance Devices Centre,
75 Moodie Drive, Ottawa, Ontario, Canada

NPC — Nucleonic Products Co.,
3133 E. 12th St., Los Angeles, Calif. 90023

NSC — National Semiconductor Corporation,
2975 San Ysidro Way, Santa Clara,
California 95051

NTLB — Newmarket Transistors Ltd.,
Exning Road, New Market, England

PHIC — Philips Electron Devices Ltd., 116 Vanderhoof
Ave., Toronto, Ontario, Canada

PHIL — Philco Corp., Micro-Electronics Div.,
2920 San Ysidro Way, Santa Clara,
California 95051

PHIN — Philips Gloeilampenfabrieken,
Eindoven, Netherlands

PIR — Pirgo Electronics, Inc.,
P. O. Box 397, Farmingdale, Long Island,
New York 11735

PPC — Power Physics Corporation,
Industrial Way West, P. O. Box 626,
Eatontown, New Jersey 07724

PSI — TRW Semicon. — see TRW

QDC — Qualidyne Corporation,
3699 Tahoe Way, Santa Clara, Calif. 95051

RADF — La Radiotechnique, Div. Tubes Electroniques,
130 Avenue Ledru Rolin, Paris 11e, France

(*) **RAU — The Rauland Corp.,**
4245 N. Knox Ave., Chicago, Ill. 60630

RAYI — Raytheon-Elsi,
via Villagrazia 79, Palermo, Italy

RAYN — Raytheon Semiconductor Div.,
350 Ellis St., Mountain View, Calif. 94040

RCA — R. C. A. Electronic Components & Devices,
Somerville, New Jersey 08876

(*) **RCAC — RCA Victor Co. Ltd.,** 1001 Lenoir St.,
Montreal, Quebec, Canada

RCAS — R. C. A. — see RCA

RHE — Rheem Semicon. — see RAYN

ROSG — Dr. Ing. Rudolph Rost,
Ubbenstrasse 21, Hanover 1, Germany

SAKJ — Sanken Electric Co., 1-22-8 Nishi-Ikebukuro,
Toshima-ku, Tokyo, Japan

SANJ — Tokyo Sanyo — see TSAJ

SEC — Secoa Electronics Division — See SIL

SELB — Semiconductor Division, Plessey Company, Ltd.,
Cheney Manor, Swindon, Wiltshire, England

(*) **SELG — Standard Elektrik Lorenz,** Gerschaeftsbereich
Bauelemente, 66 Platenstrasse, 85 Nuremberg,
Germany

(*) **SEM — Semi-Elements,Inc.**
Saxonburg Blvd., Saxonburg, Penna. 16056

SES — Semitronics Corporation,
265 Canal Street, New York, N. Y. 10013

SESC — SESCO, 41 Rue de l'Amiral-Mouchez,
Paris 13e, France

SGSI — Societa Generale Semiconduttori SpA SGS,
Via C. Olivetti 1, Agrate, Milano, Italy

SLA — Slater Electric Inc., Semiconductor Division,
45 Sea Cliff Ave., Glen Cove, New York 11542

SLCB — Semitron Limited,
Cricklade, Wiltshire, England

SHEJ — Shindengen Electric Mfg. Co., 4, 2-Chome
Ohtemachi, Chiyoda-ku, Toyko, Japan

SHWG — Siemens Aktiengesellschaft, Balanstrasse 73,
8000 Munich 8, Germany

SIHG — Siemens & Halske Aktiengesellschaft
— See SHWG

SIL — Silicon Transistor Corp.,
East Gate Blvd., Garden City, N. Y. 11532

SIX — Siliconix,
1140 W. Evelyn Ave., Sunnyvale, Calif. 94086

Manufacturers continued

SOA — Semicoa, 940 South Ajax Avenue, City of Industry, California 91744
SOD — Solitron Devices, Inc., 1177 Blue Heron Blvd., Riviera Beach, Florida 33404
(*) **SOI — Semi-Onics,** 4 Broadway, Lowell, Mass. 01854
SOIF — Soc. Industriel des Liaisons Electriques, 64 bis Rue de Monceau, Paris 8e, France
SONY — Sony Corp., 14 Asahi-Cho-4, Atsugi-Shi, Kanagawa-Ken, Japan
SPC — Solid Power Corporation, 440 Eastern Parkway, Farmingdale, New York 11735
SPR — Sprague Electric Co., North Adams, Mass. 01247
SSD — Sperry Semiconductor — See SOD
SSE — Solid State Electronics Co., 15321 Rayen St., Sepulveda, Calif. 91343
SSI — Solid State Devices Inc., 12741 Los Nietos Road, Santa Fe, Calif. 90670
SSP — Solid State Products, 1 Pingree St., Salem, Mass. 01970
SSS — Solid State Scientific Corporation, Montgomeryville Industrial Center, Montgomeryville, Pennsylvania 18936
STAG — Tekade — see TKAD
(*) **STCA — Standard Tels. & Cables Pty. Ltd.,** 252 Botany Rd. Alex., Sydney, Australia
STCB — S.T.C. Semiconductors Ltd., Footscray, Sidcup, Kent, England
STL — Stow Laboratories, Inc., Barton Road, Stow, Massachusetts 01775
(*) **SYL — Sylvania Semiconductor,** 100 Sylvan Road, Woburn, Mass. 01801
SUH — Siemens Aktiengesellschaft — See SHWG
TADI — Tadiran, 3, Derech Hashalom, Tel-Aviv, Israel
TAGS — Transistor AG, Hohlstrasse 610, Zurich 9, Switzerland
TEC — Transitron Electronic Corp., 168 Albion St., Wakefield, Mass. 01880
TEK — Trans-Tek Manufacturing Company 4405 South Clinton Avenue, South Plainfield, New Jersey 07080
TFKG —— Allgemeine Elektricitats-Gesellschaft AEG Telefunken, 71 Heilbronn (Neckar), Postfach 1042, West Germany
THOB — Thorn-AEI — See AEIL
TII — Texas Instruments Inc., Components Group, P. O. Box 5012, Dallas, Texas 75222
TIIB — Texas Instruments Ltd., Manton Lane, Bedford, England
TIIF — Texas Instruments France, Villeneuve-Loubet (A.M.), France
(*) **TKAD — Tekade,** Schliessfach 870, Nurnberg 2, Germany
TOSJ — Tokyo Shibaura Electric Co., 1 Komukaitoshiba Cho, Kawasaki, Japan
TRW — TRW Semiconductors, 14520 Aviation Blvd., Lawndale, Calif. 90260
TSAJ — Tokyo Sanyo Electric Co., Oizumimachi, Oragun Gumma, Japan
TSE — Tung-Sol — see TUNE
TTKJ — Tokyo Tsushin — see SONY
(*) **TUNE — Tung-Sol Electric,** 545 N. Arlington Ave., E. Orange, N. J. 07017
(*) **TYC — Tyco Semicon. Corp.,** Bear Hill, Waltham, Mass. 02154
UCC — Union Carbide Linde Div., 365 Middlefield Road, Mountain View, California 94040
UEHK — Micro Electronics Ltd., Kwun Tong, Hong Kong
(*) **UST — U. S. Transistor Corp.,** 149 Eileen Way, Syosset, N. Y. 11791
VALG — VALVO, Hamburg 1, Germany
(*) **VANN — Van Der Heem NV,** Maanweg 156, The Hague, Netherlands
VSS — Vector Solid State Labs. — See ECD
(*) **WEC — Western Electric Co.,** Marion & Vine Sts., Laureldale, Pa. 19605
WESY — Westinghouse Semiconductor Dept., Youngwood, Pa. 15697
WTC — Western Transistor Corp., 11518 Federal Drive, El Monte, Calif. 91731
(*) **YECJ — Yaou Electric Co.,** 1116 Suenaga, Kawasaki, Kanagawa, Japan

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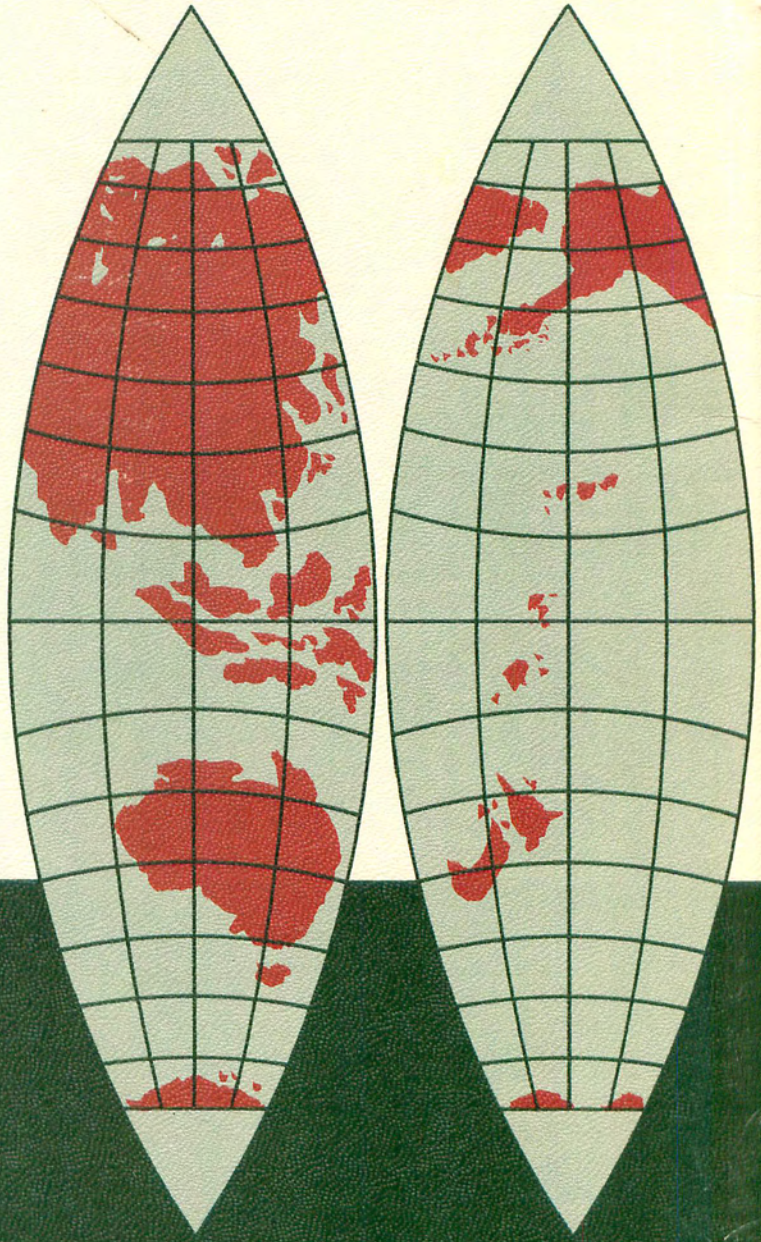

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