

MALLORY *Precision*
electronic components

GENERAL CATALOG

1985

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MALLORY *Precision* electronic components



Introduction

The Mallory General Catalog presents in condensed form the thousands of precision electronic components available from Franchised Mallory Distributors. For more detailed information about specific products, ask your distributor for the appropriate Mallory technical bulletin.

This edition of the General Catalog contains many new products. Some are additions to existing lines and others are completely new products not previously available from Mallory. All are identified by a large dot either along side of the Mallory catalog number or the product description.

Because of the extremely broad nature of the Mallory line, some of the products shown in this catalog may not be stocked by your local Mallory Distributor. He will, however, be pleased to help you in every way possible. Remember, your Mallory Distributor is your best source for all of your electronic requirements.

Up to date price sheets, on all of our products, are available from your local Mallory Distributor.

In the interests of improved design and performance, Emhart reserves the right to make changes in any specification shown.

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Consult your local Mallory distributor for price information.

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Consult your local Mallory distributor for price information.

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Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

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The information contained herein is believed to be correct, but no guarantee or warranty with respect to accuracy, completeness or results is implied and no liability is assumed. Nothing herein is to be construed as advising or authorizing practice of any invention covered by existing patents owned by Emhart or others without license from the owners thereof. In the interest of improved design and performance, Emhart reserves the right to make changes in any specification, data, or material contained herein.

Consult your local Mallory distributor for price information.

LOW ESR, LOW INDUCTANCE, LOW IMPEDANCE PERFORMANCE

The Mallory CGO capacitor, with its unique internal construction combined with a low resistance, non-aqueous electrolyte, provides the performance required for output filtering in switching power supplies.

The inherent low inductance of the CGO capacitor is evident in the typical impedance versus frequency curves provided in this bulletin. Equivalent Series Resistance is relatively constant from 5KHz through 50KHz.

All CGO capacitors are designed in a 1 3/8" diameter case and are available with either low (standard) or high No. 10-32 threaded insert terminals. Supplied with PVC Sleeve. Replaces: 622D, 3191/91F, 139R. Request bulletin 4-314 for complete technical data. For prices, request price sheet number 321.



HIGHLIGHTS

- Capacitance - 2800 to 67000 μ F
- Voltage - 5 to 55 WVDC
- Capacitance tolerance - \pm 20%; symmetrical
- Temperature - -55°C to +85°C
- Case Sizes - 1.375 diameter with 8 can heights 2.125 to 5.625
- Pressure sensitive safety vent
- Choice of terminals - high or low post (standard)
- High ripple current
- Low, controlled ESR - symmetrical \pm 30% tolerance @ 20KHz

APPLICATIONS

Switching regulator power supply output filtering.
Other high frequency applications requiring any combination of low ESR, low inductance, high ripple current and/or wide temperature range provided by the Mallory CGO capacitor.

Capacitance μ F	ESR (milliohms) @ 20KHz @ 25°C		Max. AC Ripple Current (amps RMS) @ 20KHz @ 85°C	*Case Code	Catalog Number Low Post
	Max.	Min.			
5 Volts DC Working, 6 Volts DC Surge					
18000	7.5	4.1	9.8	R2C	CG0183M005L
25000	6.5	3.5	11.4	R2L	CG0253M005L
32000	5.9	3.1	13.0	R3C	CG0323M005L
39000	5.3	2.9	14.4	R3L	CG0393M005L
46000	4.9	2.7	15.8	R4C	CG0463M005L
53000	4.6	2.4	17.3	R4L	CG0533M005L
60000	4.2	2.2	19.0	R5C	CG0603M005L
67000	3.9	2.1	20.4	R5L	CG0673M005L
7.5 Volts DC Working, 9 Volts DC Surge					
15000	7.8	4.2	9.6	R2C	CG0153M7R5L
21000	6.8	3.6	11.2	R2L	CG0213M7R5L
27000	6.0	3.2	12.8	R3C	CG0273M7R5L
33000	5.5	2.9	14.2	R3L	CG0333M7R5L
39000	5.1	2.7	15.6	R4C	CG0393M7R5L
45000	4.7	2.5	17.1	R4L	CG0453M7R5L
51000	4.3	2.3	18.7	R5C	CG0513M7R5L
57000	3.9	2.1	20.4	R5L	CG0573M7R5L
10 Volts DC Working, 12 Volts DC Surge					
14000	7.9	4.3	9.5	R2C	CG0143M010L
19000	6.9	3.7	11.1	R2L	CG0193M010L
25000	6.1	3.3	12.7	R3C	CG0253M010L
30000	5.6	3.1	14.1	R3L	CG0303M010L
35000	5.1	2.7	15.6	R4C	CG0353M010L
42000	4.7	2.5	17.1	R4L	CG0423M010L
48000	4.3	2.3	18.7	R5C	CG0483M010L
54000	3.9	2.1	20.4	R5L	CG0543M010L
16 Volts DC Working, 18 Volts DC Surge					
10000	8.3	4.5	9.3	R2C	CG0103M016L
14000	7.2	3.8	10.9	R2L	CG0143M016L
18000	6.4	3.4	12.4	R3C	CG0183M016L
22000	5.7	3.1	13.9	R3L	CG0223M016L
26000	5.2	2.8	15.4	R4C	CG0263M016L
30000	4.8	2.6	16.9	R4L	CG0303M016L
34000	4.4	2.4	18.4	R5C	CG0343M016L
38000	4.0	2.2	20.1	R5L	CG0383M016L
20 Volts DC Working, 22 Volts DC Surge					
8800	8.6	4.6	9.1	R2C	CG0882M020L
12000	7.4	4.0	10.7	R2L	CG0123M020L
16000	6.5	3.5	12.3	R3C	CG0163M020L
20000	5.9	3.1	13.8	R3L	CG0203M020L

Capacitance μ F	ESR (milliohms) @ 20KHz @ 25°C		Max. AC Ripple Current (amps RMS) @ 20KHz @ 85°C	*Case Code	Catalog Number Low Post
	Max.	Min.			
20 Volts DC Working, 22 Volts DC Surge (Continued)					
22000	5.3	2.9	15.3	R4C	CG0223M020L
27000	4.9	2.7	16.6	R4L	CG0273M020L
30000	4.6	2.4	18.1	R5C	CG0303M020L
34000	4.2	2.2	19.8	R5L	CG0343M020L
28 Volts DC Working, 32 Volts DC Surge					
6300	9.2	5.0	8.8	R2C	CG0632M028L
8800	7.9	4.3	10.4	R2L	CG0882M028L
11000	6.9	3.7	11.9	R3C	CG0113M028L
14000	6.2	3.4	13.3	R3L	CG0143M028L
16000	5.6	3.0	14.9	R4C	CG0163M028L
19000	5.1	2.7	16.4	R4L	CG0193M028L
22000	4.7	2.5	17.9	R5C	CG0223M028L
24000	4.3	2.3	19.5	R5L	CG0243M028L
35 Volts DC Working, 40 Volts DC Surge					
4500	9.8	5.2	8.6	R2C	CG0452M035L
6300	8.3	4.5	10.1	R2L	CG0632M035L
8100	7.2	3.8	11.7	R3C	CG0812M035L
10000	6.5	3.5	13.1	R3L	CG0103M035L
12000	5.9	3.1	14.6	R4C	CG0123M035L
14000	5.3	2.9	16.0	R4L	CG0143M035L
16000	4.8	2.6	17.7	R5C	CG0163M035L
17000	4.4	2.4	19.2	R5L	CG0173M035L
45 Volts DC Working, 50 Volts DC Surge					
3800	10.0	5.4	8.3	R2C	CG0382M045L
4600	9.1	4.9	9.8	R2L	CG0462M045L
6200	7.8	4.2	11.3	R3C	CG0622M045L
7700	6.8	3.6	12.7	R3L	CG0772M045L
9300	5.9	3.1	14.2	R4C	CG0932M045L
10000	5.6	3.0	15.6	R4L	CG0103M045L
12000	4.9	2.7	17.3	R5C	CG0123M045L
14000	4.6	2.5	18.9	R5L	CG0143M045L
55 Volts DC Working, 64 Volts DC Surge					
2800	11.3	6.1	8.0	R2C	CG0282M055L
3900	9.5	5.1	9.5	R2L	CG0392M055L
5000	8.2	4.4	11.0	R3C	CG0502M055L
6200	7.3	3.9	12.3	R3L	CG0622M055L
7300	6.5	3.5	13.8	R4C	CG0732M055L
8400	5.9	3.1	15.3	R4L	CG0842M055L
9500	5.2	2.8	17.0	R5C	CG0952M055L
10000	4.7	2.5	18.7	R5L	CG0103M055L

NOTE: To order high post terminals change last character in catalog number from "L" to "H", (special).

MALLORY CATALOG NUMBER

Mallory Type Number _____
This identifies the basic capacitor design

Capacitance _____
Expressed in microfarads. The first two digits are significant figures, the third is the number of zeroes.

Capacitance Tolerance _____
M = \pm 20%

DC Voltage Rating _____
Expressed in volts. Zeroes are used to precede the voltage rating where necessary to complete the three digit block. 7R5 signifies 7.5 volts.

Terminal _____
H = High screw insert L = Low screw insert (standard)

•NEW PRODUCT

2. ORDERING INFORMATION

CGO 103 M 016 L

Consult your local Mallory distributor for price information.

* See page 15, for case code identification.

Type CGS Computer Grade Capacitors

MALLORY

The CGS is a high performance computer grade aluminum electrolytic capacitor in a rugged aluminum can with a choice of high (standard) or low post terminal configurations for mounting. The CGS excels in initial electrical performance and high ripple capability. For applications requiring exceptionally long life, the CG excels. But, for work-horse power filtering and energy storage applications, the CGS is the top performer. With capacitances up to 540,000 μ F and ripple capability up to 30 amperes rms at 85°C, the CGS handles extreme application requirements with ease. Request bulletin 4-303 for complete technical data. For pricing, refer to price sheet No. 303. Replaces 36D; 36DX; 86F; 500; DCM.



HIGHLIGHTS

Capacitance Range—75 to 540,000 μ F
 Voltage Range—3 to 450 WVDC
 Capacity Tolerance—U = -10, +75%; T = -10, +50%
 Operating Temperature—-40°C to +85°C

FEATURES

Low leakage current/low ESR
 High ripple current capability
 PVC insulating sleeve
 High post terminals (standard)
 Low post terminals (special)

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
3 WVDC; 4 VDC SURGE					
17,000	.096	2.70	R1N	CGS173U003L	CGS173U003R1N
25,000	.064	3.58	R2C	CGS253U003L	CGS253U003R2C
37,000	.045	4.69	R2L	CGS373U003L	CGS373U003R2L
48,000	.035	5.77	R3C	CGS483U003L	CGS483U003R3C
57,000	.029	6.67	R3L	CGS573U003L	CGS573U003R3L
68,000	.025	7.72	R4C	CGS683U003L	CGS683U003R4C
80,000	.021	8.75	R4L	CGS803U003L	CGS803U003R4L
82,000	.023	8.16	V2L	CGS823U003L	CGS823U003V2L
100,000	.017	10.00	R5L	CGS104U003L	CGS104U003R5L
100,000	.018	9.93	V3C	CGS104U003LA	CGS104U003V3C
120,000	.016	10.00	V3L	CGS124U003L	CGS124U003V3L
125,000	.016	10.00	V3C	CGS1253U003L	•CGS1253U003V3C
170,000	.012	10.00	V4C	CGS174U003L	CGS174U003V4C
180,000	.020	10.71	W3C	CGS184U003L	CGS184U003W3C
190,000	.019	10.00	W3C	CGS194U003L	•CGS194U003W3C
210,000	.017	12.34	W3L	CGS214U003L	CGS214U003W3L
280,000	.013	14.96	W4C	CGS284U003L	CGS284U003W4C
380,000	.010	18.76	W5C	CGS384U003L	CGS384U003W5C
400,000	.012	17.05	X4C	CGS404U003L	CGS404U003X4C
540,000	.009	20.00	X5C	CGS544U003L	CGS544U003X5C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
10 WVDC; 12 VDC SURGE (Continued)					
58,000	.018	10.00	V3C	CGS583U010L	CGS583U010V3C
65,000	.016	10.00	V3L	CGS653U010L	•CGS653U010V3L
76,000	.013	10.00	V4C	CGS763U010L	CGS763U010V4C
94,000	.012	10.00	V4C	CGS943U010L	CGS943U010V4C
110,000	.018	12.13	W3L	CGS114U010L	CGS114U010W3L
120,000	.017	12.21	W3L	CGS124U010L	•CGS124U010W3L
140,000	.008	19.54	V5L	CGS144U010L	CGS144U010V5L
150,000	.015	14.57	X3L	CGS154U010L	CGS154U010X3L
150,000	.014	14.53	W4C	CGS154U010LA	CGS154U010W4C
160,000	.014	14.41	W4C	CGS164U010L	CGS164U010W4C
180,000	.014	14.76	X3L	CGS184U010L	•CGS184U010X3L
220,000	.012	17.62	X4C	CGS224U010L	CGS224U010X4C
230,000	.009	20.24	W5L	CGS234U010L	CGS234U010W5L
330,000	.008	24.44	X5L	CGS334U010L	CGS334U010X5L
390,000	.007	27.72	X6L	CGS394U010L	CGS394U010X6L
490,000	.005	30.00	X8L	CGS494U010L	CGS494U010X8L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
5 WVDC; 7 VDC SURGE					
12,000	.097	2.70	R1N	CGS123U005L	CGS123U005R1N
18,000	.065	3.58	R2C	CGS183U005L	CGS183U005R2C
26,000	.045	4.66	R2L	CGS263U005L	CGS263U005R2L
35,000	.034	5.86	R3C	CGS353U005L	CGS353U005R3C
40,000	.030	6.63	R3L	CGS403U005L	CGS403U005R3L
50,000	.025	7.83	R4C	CGS503U005L	CGS503U005R4C
58,000	.022	8.34	V2L	CGS583U005L	CGS583U005V2L
65,000	.019	9.98	R5C	CGS653U005L	CGS653U005R5C
75,000	.017	10.00	V3C	CGS753U005L	CGS753U005V3C
90,000	.015	10.00	V3L	CGS903U005L	CGS903U005V3L
100,000	.014	10.00	V3L	CGS104U005L	•CGS104U005V3L
120,000	.012	10.00	V4C	CGS124U005L	CGS124U005V4C
150,000	.017	12.29	W3L	CGS154U005L	CGS154U005W3L
160,000	.009	10.00	V5C	CGS164U005L	CGS164U005V5C
200,000	.014	14.41	W4C	CGS204U005L	CGS204U005W4C
260,000	.010	18.76	W5C	CGS264U005L	CGS264U005W5C
280,000	.011	18.04	X4C	CGS284U005L	CGS284U005X4C
380,000	.009	20.00	X5C	CGS384U005L	CGS384U005X5C
500,000	.007	27.83	X6L	CGS504U005L	CGS504U005X6L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
15 WVDC; 20 VDC SURGE					
5,500	.116	2.68	R2C	CGS552U015L	•CGS552U015R2C
8,900	.073	3.38	R2C	CGS892U015L	CGS892U015R2C
10,000	.064	4.28	R3C	CGS103U015L	•CGS103U015R3C
10,000	.067	3.52	R2C	CGS103U015LA	CGS103U015R2C
12,000	.065	3.57	R2C	CGS123U015L	•CGS123U015R2C
15,000	.043	5.93	R4C	CGS153U015L	•CGS153U015R4C
17,000	.038	5.52	R3C	CGS173U015L	CGS173U015R3C
19,000	.036	5.69	R3C	CGS193U015L	•CGS193U015R3C
21,000	.031	6.55	R3L	CGS213U015L	CGS213U015R3L
23,000	.030	7.71	V3C	CGS233U015L	•CGS233U015V3C
24,000	.043	5.21	R3C	CGS243U015L	•CGS243U015R3C
25,000	.026	7.57	R4C	CGS253U015L	CGS253U015R4C
25,000	.030	6.54	V2C	CGS253U015LA	•CGS253U015V2C
26,000	.025	7.76	R4C	CGS263U015L	•CGS263U015R4C
34,000	.019	9.73	R5C	CGS343U015L	CGS343U015R5C
34,000	.020	10.00	V4C	CGS343U015LA	•CGS343U015V4C
34,000	.031	6.96	R4C	CGS343U015LB	•CGS343U015R4C
38,000	.019	9.67	V3C	CGS383U015L	CGS383U015V3C
50,000	.014	14.81	V5L	CGS503U015L	•CGS503U015V5L
50,000	.016	10.00	V3C	CGS503U015LA	•CGS503U015V3C
55,000	.014	10.00	V3L	CGS553U015L	CGS553U015V3L
66,000	.012	10.00	V4C	CGS663U015L	•CGS663U015V4C
70,000	.012	10.00	V4C	CGS703U015L	•CGS703U015V4C
77,000	.010	10.00	V4L	CGS773U015L	CGS773U015V4L
80,000	.016	14.79	X4C	CGS803U015L	•CGS803U015X4C
80,000	.020	10.71	W3C	CGS803U015LA	•CGS803U015W3C
83,000	.009	15.00	V5L	CGS833U015L	CGS833U015V5L
88,000	.009	10.00	V5C	CGS883U015L	CGS883U015V5C
100,000	.014	17.56	X5C	CGS104U015L	•CGS104U015X5C
110,000	.014	14.41	W4C	CGS114U015L	CGS114U015W4C
120,000	.015	14.79	X3L	CGS124U015L	•CGS124U015X3L
120,000	.011	20.81	X5R	CGS124U015LA	•CGS124U015X5R
128,000	.014	15.15	X3L	CGS1283U015L	•CGS1283U015X3L
130,000	.015	14.76	W4L	CGS134U015L	CGS134U015W4L
150,000	.012	17.44	X4C	CGS154U015L	CGS154U015X4C
154,000	.012	17.28	X4C	CGS1543U015L	•CGS1543U015X4C
180,000	.010	19.79	X4L	CGS184U015L	CGS184U015X4L
210,000	.008	23.97	X5R	CGS214U015L	CGS214U015X5R

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
10 WVDC; 12 VDC SURGE					
7,200	.123	2.60	R2C	CGS722U010L	•CGS722U010R2C
12,000	.075	3.33	R2C	CGS123U010L	CGS123U010R2C
13,000	.069	4.11	R3C	CGS133U010L	•CGS133U010R3C
14,000	.066	3.55	R2C	CGS143U010L	•CGS143U010R2C
20,000	.045	5.78	R4C	CGS203U010L	•CGS203U010R4C
20,000	.046	4.68	R2L	CGS203U010LA	CGS203U010R2L
26,000	.035	5.77	R3C	CGS263U010L	CGS263U010R3C
30,000	.021	9.19	V3C	CGS303U010L	•CGS303U010V3C
33,000	.028	7.38	R4C	CGS333U010L	CGS333U010R4C
43,000	.021	8.83	R4L	CGS433U010L	CGS433U010R4L
44,000	.022	10.00	V4C	CGS443U010L	•CGS443U010V4C
55,000	.017	10.00	R5L	CGS553U010L	CGS553U010R5L

•NEW PRODUCT

Consult your local Mallory distributor for price information.

*See page 15, for case code identification.

CONTINUED

Specifications subject to change without notice.

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
25 WVDC; 30 VDC SURGE					
3,000	.105	2.81	R2C	CGS302U025L	●CGS302U025R2C
4,700	.098	2.90	R2C	CGS472U025L	●CGS472U025R2C
5,600	.082	3.76	R3C	CGS562U025L	●CGS562U025R3C
6,000	.078	3.26	R2C	CGS602U025L	●CGS602U025R2C
8,200	.056	5.16	R4C	CGS822U025L	●CGS822U025R4C
8,900	.052	4.73	R3C	CGS892U025L	●CGS892U025R3C
10,000	.047	4.98	R3C	CGS103U025L	●CGS103U025R3C
12,000	.028	8.01	V3C	CGS123U025L	●CGS123U025V3C
13,000	.039	5.74	V2C	CGS133U025L	●CGS133U025V2C
14,000	.037	5.89	V2C	CGS143U025L	●CGS143U025V2C
16,000	.029	7.20	R4C	CGS163U025L	●CGS163U025R4C
18,000	.019	10.00	V4C	CGS183U025L	●CGS183U025V4C
20,000	.025	8.48	V3C	CGS203U025L	●CGS203U025V3C
20,000	.024	8.83	R5C	CGS203U025L	●CGS203U025R5C
27,000	.013	15.00	V5L	CGS273U025L	●CGS273U025V5L
28,000	.017	10.00	V3C	CGS283U025L	●CGS283U025V3C
29,000	.017	10.00	V4C	CGS293U025L	●CGS293U025V4C
30,000	.029	8.90	W3C	CGS303U025L	●CGS303U025W3C
32,000	.016	10.00	V4C	CGS323U025L	●CGS323U025V4C
40,000	.023	9.99	W3C	CGS403U025L	●CGS403U025W3C
41,000	.013	10.00	V4C	CGS413U025L	●CGS413U025V4C
43,000	.016	15.16	X4C	CGS433U025L	●CGS433U025X4C
43,000	.012	15.00	V5L	CGS433U025LA	●CGS433U025V5L
46,000	.021	11.23	W3L	CGS463U025L	●CGS463U025W3L
50,000	.011	15.00	V5L	CGS503U025L	●CGS503U025V5L
50,000	.019	11.70	W3L	CGS503U025LA	●CGS503U025W3L
52,000	.012	10.00	V5C	CGS523U025L	●CGS523U025V5C
57,000	.022	19.09	X5C	CGS573U025L	●CGS573U025X5C
65,000	.015	13.81	W4C	CGS653U025L	●CGS653U025W4C
65,000	.017	13.75	X3L	CGS653U025LA	●CGS653U025X3L
67,000	.010	21.55	X5R	CGS673U025L	●CGS673U025X5R
70,000	.015	15.69	X4C	CGS703U025L	●CGS703U025X4C
76,000	.014	16.06	X4C	CGS763U025L	●CGS763U025X4C
85,000	.011	18.25	W5L	CGS853U025L	●CGS853U025W5L
90,000	.011	18.65	W5L	CGS903U025L	●CGS903U025W5L
92,000	.011	19.70	X5C	CGS923U025L	●CGS923U025X5C
95,000	.013	16.60	X4C	CGS953U025L	●CGS953U025X4C
110,000	.010	21.84	X5L	CGS114U025L	●CGS114U025X5L
110,000	.010	22.26	X5R	CGS114U025LA	●CGS114U025X5R
110,000	.010	20.00	X5C	CGS114U025LB	●CGS114U025X5C
120,000	.010	20.00	X5C	CGS124U025L	●CGS124U025X5C
190,000	.006	30.00	X8L	CGS194U025L	●CGS194U025X8L
200,000	.006	30.00	X8L	CGS2043U25L	●CGS204U025X8L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
30 WVDC; 40 VDC SURGE					
4,500	.089	3.06	R2C	CGS452U030L	●CGS452U030R2C
5,000	.080	3.22	R2C	CGS502U030L	●CGS502U030R2C
8,000	.050	4.83	R3C	CGS802U030L	●CGS802U030R3C
9,200	.044	5.15	R3C	CGS922U030L	●CGS922U030R3C
12,000	.034	6.65	R4C	CGS123U030L	●CGS123U030R4C
13,000	.031	6.96	R4C	CGS133U030L	●CGS133U030R4C
15,000	.027	7.86	R4L	CGS153U030L	●CGS153U030R4L
18,000	.023	9.35	R5L	CGS183U030L	●CGS183U030R5L
20,000	.020	10.00	R5L	CGS203U030L	●CGS203U030R5L
30,000	.015	10.00	V4C	CGS303U030L	●CGS303U030V4C
33,000	.014	10.00	V4C	CGS333U030L	●CGS333U030V4C
45,000	.010	15.00	V5L	CGS453U030L	●CGS453U030V5L
50,000	.009	15.00	V5L	CGS503U030L	●CGS503U030V5L
55,000	.015	13.72	W4C	CGS553U030L	●CGS553U030W4C
70,000	.012	17.96	W5L	CGS703U030L	●CGS703U030W5L
70,000	.013	16.32	X4C	CGS703U030LA	●CGS703U030X4C
78,000	.013	16.60	X4C	CGS783U030L	●CGS783U030X4C
100,000	.010	22.10	X5L	CGS104U030L	●CGS104U030X5L
116,000	.009	22.81	X5L	CGS1163U030L	●CGS1163U030X5L
160,000	.006	30.00	X8L	CGS164U030L	●CGS164U030X8L
178,000	.006	30.00	X8L	CGS1783U030L	●CGS1783U030X8L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
35 WVDC; 45 VDC SURGE					
4,400	.082	3.18	R2C	CGS442U035L	●CGS442U035R2C
8,200	.044	5.15	R3C	CGS822U035L	●CGS822U035R3C
10,000	.039	5.74	V2C	CGS103U035L	●CGS103U035V2C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
35 WVDC; 45 VDC SURGE (Continued)					
12,000	.030	7.08	R4C	CGS123U035L	●CGS123U035R4C
21,000	.019	9.67	V3C	CGS213U035L	●CGS213U035V3C
30,000	.024	9.78	W3C	CGS303U035L	●CGS303U035W3C
31,000	.013	10.00	V4C	CGS313U035L	●CGS313U035V4C
45,000	.018	13.36	W4C	CGS453U035L	●CGS453U035W4C
48,000	.017	13.75	X3L	CGS483U035L	●CGS483U035X3L
70,000	.013	16.60	X4C	CGS703U035L	●CGS703U035X4C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
40 WVDC; 50 VDC SURGE					
2,200	.085	3.13	R2C	CGS222U040L	●CGS222U040R2C
2,700	.109	2.76	R2C	CGS272U040L	●CGS272U040R2C
3,500	.085	3.13	R2C	CGS352U040L	●CGS352U040R2C
4,200	.070	4.08	R3C	CGS422U040L	●CGS422U040R3C
5,100	.065	4.25	R3C	CGS512U040L	●CGS512U040R3C
6,000	.049	4.86	R3C	CGS602U040L	●CGS602U040R3C
6,200	.048	5.62	R4C	CGS622U040L	●CGS622U040R4C
6,600	.045	5.09	R3C	CGS662U040L	●CGS662U040R3C
7,500	.040	6.17	R4C	CGS752U040L	●CGS752U040R4C
9,000	.033	6.73	R4C	CGS902U040L	●CGS902U040R4C
9,300	.037	7.27	V3C	CGS932U040L	●CGS932U040V3C
11,000	.028	7.94	V3C	CGS113U040L	●CGS113U040V3C
13,000	.024	9.70	V4C	CGS133U040L	●CGS133U040V4C
13,000	.023	9.35	R5L	CGS133U040LA	●CGS133U040R5L
17,000	.019	10.00	V4C	CGS173U040L	●CGS173U040V4C
17,000	.020	9.51	V3C	CGS173U040LA	●CGS173U040V3C
20,000	.011	15.00	V5L	CGS203U040L	●CGS203U040V5L
23,000	.015	10.00	V4C	CGS233U040L	●CGS233U040V4C
32,000	.020	13.51	V4C	CGS323U040L	●CGS323U040V4C
35,000	.010	15.00	V5L	CGS353U040L	●CGS353U040V5L
40,000	.016	15.09	X4C	CGS403U040L	●CGS403U040X4C
40,000	.016	13.06	W4C	CGS403U040LA	●CGS403U040W4C
43,000	.014	17.56	X5C	CGS433U040L	●CGS433U040X5C
50,000	.012	20.14	X5R	CGS503U040L	●CGS503U040X5R
53,000	.012	19.00	X5C	CGS533U040L	●CGS533U040X5C
55,000	.011	18.27	W5L	CGS553U040L	●CGS553U040W5L
55,000	.013	16.47	X4C	CGS553U040LA	●CGS553U040X4C
74,000	.010	20.00	X5C	CGS743U040L	●CGS743U040X5C
78,000	.009	25.09	X6L	CGS783U040L	●CGS783U040X6L
80,000	.009	22.38	X5L	CGS803U040L	●CGS803U040X5L
83,000	.009	22.81	X5L	CGS833U040L	●CGS833U040X5L
88,000	.009	23.26	X5R	CGS883U040L	●CGS883U040X5R
91,000	.008	24.20	X6L	CGS913U040L	●CGS913U040X6L
125,000	.006	30.00	X8L	CGS1253U40L	●CGS1253U40X8L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
50 WVDC; 65 VDC SURGE					
1,600	.228	1.91	R2C	CGS162U050L	●CGS162U050R2C
2,200	.254	1.81	R2C	CGS222U050L	●CGS222U050R2C
2,900	.125	3.05	R3C	CGS292U050L	●CGS292U050R3C
3,000	.190	2.09	R2C	CGS302U050L	●CGS302U050R2C
4,100	.136	2.93	R3C	CGS412U050L	●CGS412U050R3C
4,300	.129	3.41	R4C	CGS432U050L	●CGS432U050R4C
4,900	.114	3.42	R3L	CGS492U050L	●CGS492U050R3L
5,000	.113	3.21	R3C	CGS502U050L	●CGS502U050R3C
5,700	.100	3.41	R3C	CGS572U050L	●CGS572U050R3C
6,100	.092	4.05	R4C	CGS612U050L	●CGS612U050R4C
6,500	.062	5.35	V3C	CGS652U050L	●CGS652U050V3C
6,700	.085	3.96	R3L	CGS672U050L	●CGS672U050R3L
7,500	.076	4.46	R4C	CGS752U050L	●CGS752U050R4C
8,000	.071	4.60	R4C	CGS802U050L	●CGS802U050R4C
8,000	.090	3.78	V2C	CGS802U050LA	●CGS802U050V2C
9,600	.042	7.30	V4C	CGS962U050L	●CGS962U050V4C
12,000	.048	6.49	R5L	CGS123U050L	●CGS123U050R5L
13,000	.047	6.94	V4C	CGS133U050L	●CGS133U050V4C
13,000	.052	5.84	V3C	CGS133U050LA	●CGS133U050V3C
14,000	.029	10.11	V5L	CGS143U050L	●CGS143U050V5L
14,500	.049	6.02	V3C	CGS1452U050L	●CGS1452U050V3C
15,000	.042	7.33	V4C	CGS153U050L	●CGS153U050V4C
20,000	.031	9.82	V5L	CGS203U050L	●CGS203U050V5L
20,000	.035	8.05	V4C	CGS203U050LA	●CGS203U050V4C
22,000	.027	11.61	X4C	CGS223U050L	●CGS223U050X4C

●NEW PRODUCT

Consult your local Mallory distributor for price information.

*See page 15, for case code identification.

CONTINUED →

Specifications subject to change without notice.

Type CGS Computer Grade Capacitors



Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
50 WVDC; 65 VDC SURGE (Continued)					
24,000	.038	7.77	W3C	CGS243U050L	•CGS243U050W3C
25,000	.032	9.53	W4C	CGS253U050L	CGS253U050W4C
25,000	.027	10.00	V5C	CGS253U050L	CGS253U050V5C
28,000	.026	10.00	V5C	CGS283U050L	•CGS283U050V5C
30,000	.020	14.69	X5C	CGS303U050L	•CGS303U050X5C
30,000	.024	11.20	V5L	CGS303U050LA	CGS303U050V5L
31,000	.028	10.20	W4C	CGS313U050L	CGS313U050W4C
33,000	.027	11.52	X4C	CGS333U050L	CGS333U050X4C
35,000	.018	16.55	X5R	CGS353U050L	•CGS353U050X5R
36,000	.026	10.57	W4C	CGS363U050L	•CGS363U050W4C
36,000	.026	11.74	X4C	CGS363U050LA	•CGS363U050X4C
38,000	.030	10.35	X3L	CGS383U050L	•CGS383U050X3L
41,000	.023	13.15	X4L	CGS413U050L	CGS413U050X4L
43,000	.020	14.52	X5C	CGS433U050L	CGS433U050X5C
48,000	.023	12.37	X4C	CGS483U050L	CGS483U050X4C
50,000	.018	14.42	W5L	CGS503U050L	CGS503U050W5L
55,000	.021	13.81	X4L	CGS553U050L	CGS553U050X4L
56,000	.021	13.71	X4L	CGS563U050L	•CGS563U050X4L
60,000	.018	15.56	X5C	CGS603U050L	CGS603U050X5C
63,000	.015	19.28	X6L	CGS633U050L	CGS633U050X6L
64,000	.018	15.48	X5C	CGS643U050L	•CGS643U050X5C
70,000	.016	16.89	X5L	CGS703U050L	CGS703U050X5L
72,000	.016	17.11	X5L	CGS723U050L	•CGS723U050X5L
79,000	.013	20.42	X6L	CGS793U050L	•CGS793U050X6L
100,000	.010	26.12	X8L	CGS104U050L	CGS104U050X8L
108,000	.010	26.25	X8L	CGS1083U050L	•CGS1083U050X8L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
150 WVDC; 175 VDC SURGE					
400	.531	1.25	R2C	CGS401U150L	•CGS401U150R2C
500	.514	1.27	R2C	CGS501U150L	•CGS501U150R2C
720	.355	1.81	R3C	CGS721U150L	•CGS721U150R3C
950	.271	2.07	R3C	CGS951U150L	•CGS951U150R3C
1,100	.197	2.76	R4C	CGS112U150L	•CGS112U150R4C
1,700	.132	3.66	V3C	CGS172U150L	CGS172U150V3C
1,800	.143	3.58	R5C	CGS182U150L	•CGS182U150R5C
2,400	.116	3.91	V3C	CGS242U150L	•CGS242U150V3C
2,400	.111	4.52	V4C	CGS242U150LA	CGS242U150V4C
3,300	.068	6.35	V5C	CGS332U150L	CGS332U150V5C
3,500	.064	6.82	V5L	CGS352U150L	•CGS352U150V5L
4,000	.070	5.99	V4L	CGS402U150L	•CGS402U150V4L
4,800	.062	7.20	W4L	CGS482U150L	CGS482U150W4L
5,100	.055	7.38	V5L	CGS512U150L	•CGS512U150V5L
5,200	.059	7.02	W4C	CGS522U150L	•CGS522U150W4C
5,500	.046	8.76	W5C	CGS552U150L	CGS552U150W5C
5,700	.055	8.07	X4C	CGS572U150L	CGS572U150X4C
6,200	.041	9.64	W5L	CGS622U150L	CGS622U150W5L
6,700	.047	9.16	X4L	CGS672U150L	CGS672U150X4L
7,000	.044	8.94	W5C	CGS702U150L	•CGS702U150W5C
7,400	.050	10.87	X5C	CGS742U150L	•CGS742U150X5C
7,700	.036	11.02	X5C	CGS772U150L	CGS772U150X5C
8,000	.039	9.90	W5L	CGS802U150L	•CGS802U150W5L
8,600	.032	12.03	X5L	CGS862U150L	CGS862U150X5L
8,700	.032	12.31	X5R	CGS872U150L	•CGS872U150X5R
10,000	.034	11.27	X5C	CGS103U150L	•CGS103U150X5C
12,000	.029	12.71	X5L	CGS123U150L	•CGS123U150X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
75 WVDC; 95 VDC SURGE					
820	.292	1.68	R2C	CGS821U075L	•CGS821U075R2C
1,100	.494	1.29	R2C	CGS112U075L	CGS112U075R2C
1,500	.175	2.58	R3C	CGS152U075L	•CGS152U075R3C
1,500	.365	1.51	R2C	CGS152U075LA	CGS152U075R2C
2,100	.259	2.12	R3C	CGS212U075L	CGS212U075R3C
2,300	.236	2.52	R4C	CGS232U075L	•CGS232U075R4C
2,900	.189	2.48	R3C	CGS292U075L	CGS292U075R3C
3,100	.175	2.93	R4C	CGS312U075L	CGS312U075R4C
3,400	.083	4.62	V3C	CGS342U075L	•CGS342U075V3C
4,200	.131	3.39	R4C	CGS422U075L	CGS422U075R4C
4,800	.065	5.22	V3C	CGS482U075L	CGS482U075V3C
5,000	.057	6.30	V4C	CGS502U075L	•CGS502U075V4C
6,300	.087	4.80	R5L	CGS632U075L	CGS632U075R5L
7,100	.080	5.33	V4C	CGS712U075L	CGS712U075V4C
7,300	.082	4.65	V3C	CGS732U075L	•CGS732U075V3C
7,500	.039	8.77	V5L	CGS752U075L	•CGS752U075V5L
10,000	.059	6.18	V4C	CGS103U075L	CGS103U075V4C
12,000	.033	10.42	X4C	CGS123U075L	•CGS123U075X4C
15,000	.040	8.66	V5L	CGS153U075L	CGS153U075V5L
17,000	.044	9.02	X4C	CGS173U075L	CGS173U075X4C
17,000	.044	8.13	W4C	CGS173U075LA	CGS173U075W4C
25,000	.030	11.26	W5L	CGS253U075L	CGS253U075W5L
25,000	.034	10.32	X4C	CGS253U075LA	CGS253U075X4C
26,000	.029	12.90	X5R	CGS263U075L	CGS263U075X5R
37,000	.023	14.23	X5L	CGS373U075L	CGS373U075X5L
55,000	.015	21.43	X8L	CGS553U075L	CGS553U075X8L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
200 WVDC; 250 VDC SURGE					
300	.707	1.08	R2C	CGS301T200L	CGS301T200R2C
320	.663	1.12	R2C	CGS321T200L	•CGS321T200R2C
590	.359	1.80	R3C	CGS591T200L	•CGS591T200R3C
850	.250	2.45	R4C	CGS851T200L	CGS851T200R4C
900	.227	2.71	R4L	CGS901T200L	CGS901T200R4L
1,000	.199	3.04	R5C	CGS102T200L	CGS102T200R5C
1,200	.177	3.37	R5L	CGS122T200L	CGS1222T200R5L
1,400	.161	3.32	V3C	CGS142T200L	CGS142T200V3C
1,600	.141	3.54	V3C	CGS162T200L	CGS162T200V3C
2,000	.113	4.48	V4C	CGS202T200L	CGS202T200V4C
2,200	.102	4.71	V4C	CGS222T200L	•CGS222T200V4C
3,000	.073	6.41	V5L	CGS302T200L	CGS302T200V5L
3,000	.075	6.06	V5C	CGS302T200LA	•CGS302T200V5C
3,400	.067	6.58	W4C	CGS342T200L	CGS342T200W4C
4,600	.058	7.86	X4C	CGS462T200L	•CGS462T200X4C
5,000	.050	8.39	W5C	CGS502T200L	CGS502T200W5C
7,400	.035	11.64	X5L	CGS742T200L	CGS742T200X5L
7,700	.036	11.40	X5L	CGS772T200L	•CGS772T200X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
100 WVDC; 125 VDC SURGE					
850	.482	1.31	R2C	CGS851U100L	CGS851U100R2C
870	.471	1.32	R2C	CGS871U100L	•CGS871U100R2C
1,200	.340	1.85	R3C	CGS122U100L	•CGS122U100R3C
1,700	.241	2.20	R3C	CGS172U100L	CGS172U100R3C
1,800	.189	2.82	R4C	CGS182U100L	•CGS182U100R4C
2,400	.171	2.96	R4C	CGS242U100L	CGS242U100R4C
3,100	.132	3.73	R5C	CGS312U100L	CGS312U100R5C
4,000	.105	4.64	V4C	CGS402U100L	•CGS402U100V4C
6,000	.073	5.56	V4C	CGS602U100L	CGS602U100V4C
9,000	.049	7.80	V5L	CGS902U100L	CGS902U100V5L
10,000	.042	8.33	W4C	CGS103U100L	CGS103U100W4C
15,000	.028	11.72	W5L	CGS153U100L	CGS153U100W5L
15,000	.039	9.62	X4C	CGS153U100LA	CGS153U100X4C
21,000	.028	13.04	X5L	CGS213U100L	CGS213U100X5L
33,000	.017	20.08	X8L	CGS333U100L	CGS333U100X8L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number • Low Post	Catalog Number High Post Preferred Type
250 WVDC; 300 VDC SURGE					
200	1.056	0.88	R2C	CGS201T250L	•CGS201T250R2C
220	.961	0.93	R2C	CGS221T250L	•CGS221T250R2C
250	.927	0.94	R2C	CGS251T250L	CGS251T250R2C
380	.556	1.45	R3C	CGS381T250L	•CGS381T250R3C
500	.423	1.77	R3L	CGS501T250L	CGS501T250R3L
550	.384	1.98	R4C	CGS551T250L	CGS551T250R4C
850	.254	2.64	V3C	CGS851T250L	•CGS851T250V3C
1,000	.232	2.94	R5L	CGS102T250L	CGS102T250R5L
1,200	.180	3.54	V4C	CGS122T250L	•CGS122T250V4C
1,200	.200	2.98	V3C	CGS122T250LA	CGS122T250V3C
1,700	.067	5.83	V4C	CGS172T250L	CGS172T250V4C
1,900	.115	5.11	V5L	CGS192T250L	•CGS192T250V5L
2,000	.119	4.67	W3L	CGS202T250L	CGS202T250W3L
2,100	.110	5.14	W4C	CGS212T250L	•CGS212T250W4C
2,500	.095	5.60	V5L	CGS252T250L	CGS252T250V5L
2,900	.085	6.15	W4L	CGS292T250L	•CGS292T250W4L
2,900	.083	6.57	X4C	CGS292T250LA	•CGS292T250X4C
3,900	.062	8.34	X5C	CGS392T250L	•CGS392T250X5C
4,200	.057	8.22	W5L	CGS422T250L	CGS422T250W5L
6,000	.047	9.99	X5L	CGS602T250L	CGS602T250X5L

•NEW PRODUCT

Consult your local Mallory distributor for price information.

*See page 15, for case code identification.

CONTINUED

Specifications subject to change without notice.

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
300 WVDC; 350 VDC SURGE					
150	1.436	0.76	R2C	CGS151T300L	CGS151T300R2C
160	1.347	0.78	R2C	CGS161T300L	●CGS161T300R2C
300	.719	1.27	R3C	CGS301T300L	CGS301T300R3C
310	.696	1.29	R3C	CGS311T300L	●CGS311T300R3C
400	.539	1.67	R4C	CGS401T300L	CGS401T300R4C
500	.431	1.97	R4L	CGS501T300L	CGS501T300R4L
550	.392	2.16	R5C	CGS551T300L	CGS551T300R5C
800	.278	2.52	V3C	CGS801T300L	CGS801T300V3C
1,000	.220	3.21	V4C	CGS102T300L	CGS102T300V4C
1,100	.201	3.35	V4C	CGS112T300L	●CGS112T300V4C
1,300	.170	3.84	V4L	CGS132T300L	CGS132T300V4L
1,500	.148	4.31	V5C	CGS152T300L	CGS152T300V5C
1,600	.138	4.58	W4C	CGS162T300L	CGS162T300W4C
1,700	.131	4.78	V5L	CGS172T300L	CGS172T300V5L
1,900	.117	5.24	W4L	CGS192T300L	CGS192T300W4L
2,000	.111	5.38	W4L	CGS202T300L	●CGS202T300W4L
2,100	.105	5.78	W5C	CGS212T300L	CGS212T300W5C
2,500	.089	6.57	W5L	CGS252T300L	CGS252T300W5L
2,500	.092	6.23	X4C	CGS252T300LA	CGS252T300X4C
3,100	.074	7.65	X5C	CGS312T300L	CGS312T300X5C
3,500	.066	8.44	X5L	CGS352T300L	CGS352T300X5L
4,000	.059	8.91	X5L	CGS402T300L	●CGS402T300X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
350 WVDC; 400 VDC SURGE (Continued)					
700	.302	2.42	V3C	CGS701T350L	●CGS701T350V3C
800	.246	3.03	V4C	CGS801T350L	●CGS801T350V4C
1,000	.214	3.25	V4C	CGS102T350L	●CGS102T350V4C
1,100	.182	3.55	W3C	CGS112T350L	CGS112T350W3C
1,300	.152	4.43	V5L	CGS132T350L	CGS132T350V5L
1,500	.140	4.56	W4C	CGS152T350L	CGS152T350W4C
2,100	.098	6.04	X4C	CGS212T350L	●CGS212T350X4C
2,200	.091	6.49	W5L	CGS222T350L	CGS222T350W5L
3,000	.069	8.40	X5R	CGS302T350L	●CGS302T350X5R
3,300	.064	8.55	X5L	CGS332T350L	CGS332T350X5L
3,400	.064	8.55	X5L	CGS342T350L	●CGS342T350X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
350 WVDC; 400 VDC SURGE					
130	1.490	0.74	R2C	CGS131T350L	●CGS131T350R2C
140	1.426	0.76	R2C	CGS141T350L	●CGS141T350R2C
250	.775	1.22	R3C	CGS251T350L	●CGS251T350R3C
270	.755	1.24	R3C	CGS271T350L	●CGS271T350R3C
370	.535	1.67	R4C	CGS371T350L	●CGS371T350R4C
380	.535	1.67	R4C	CGS381T350L	CGS381T350R4C
430	.458	1.91	R4L	CGS431T350L	CGS431T350R4L
580	.334	2.45	R5L	CGS581T350L	CGS581T350R5L
650	.305	2.41	V3C	CGS651T350L	CGS651T350V3C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz + 85°C	*Case Code	Catalog Number ● Low Post	Catalog Number High Post Preferred Type
450 WVDC; 525 VDC SURGE					
75	2.526	0.57	R2C	CGS750T450L	●CGS750T450R2C
100	2.029	0.64	R2C	CGS101T450L	●CGS101T450R2C
140	1.353	0.92	R3C	CGS141T450L	●CGS141T450R3C
170	1.11	1.02	R3C	CGS171T450L	●CGS171T450R3C
210	.902	1.29	R4C	CGS211T450L	●CGS211T450R4C
250	.761	1.40	R4C	CGS251T450L	●CGS251T450R4C
320	.596	1.72	V3C	CGS321T450L	●CGS321T450V3C
350	.571	1.79	R5C	CGS351T450L	CGS351T450R5C
400	.507	1.99	R5L	CGS401T450L	CGS401T450R5L
450	.427	2.03	V3C	CGS451T450L	●CGS451T450V3C
480	.398	2.38	V4C	CGS481T450L	●CGS481T450V4C
650	.302	2.74	V4C	CGS651T450L	CGS651T450V4C
800	.258	3.11	V4L	CGS801T450L	CGS801T450V4L
1,000	.197	3.84	W4C	CGS102T450L	CGS102T450W4C
1,100	.176	4.50	X4C	CGS112T450L	●CGS112T450X4C
1,400	.148	4.88	W5C	CGS142T450L	CGS142T450W5C
1,500	.210	5.77	X5C	CGS152T450L	●CGS152T450X5C
1,500	.133	5.18	X4C	CGS152T450LA	CGS152T450X4C
1,800	.109	6.69	X5R	CGS182T450L	●CGS182T450X5R
2,000	.100	6.57	X5C	CGS202T450L	CGS202T450X5C
2,400	.089	7.26	X5L	CGS242T450L	CGS242T450X5L

* See page 15, for case code identification.
● NEW PRODUCT

CGS — COMPUTER GRADE CROSS REFERENCE

The following cross reference contains old and new type numbers. As stocks of the old numbers are exhausted they will be replaced by the new number shown adjacent to it in the cross reference. There is no difference in the capacitor, only the part number is changed. Customers can switch to the new number with complete confidence.

Old Number	New Number	Old Number	New Number	Old Number	New Number
CGS722U010BB1	CGS722U010R2C	CGS932U040DD1	CGS932U040V3C	CGS721U150BD1	CGS721U150R3C
CGS133U010BD1	CGS133U010R3C	CGS133U040DF1	CGS133U040V4C	CGS112U150BF1	CGS112U150R4C
CGS203U010BF1	CGS203U010R4C	CGS203U040D1	CGS203U040V5L	CGS352U150D1	CGS352U150V5L
CGS303U010DD1	CGS303U010V3C	CGS323U040FF1	CGS323U040V4C	CGS742U150FH1	CGS742U150X5R
CGS443U010DF1	CGS443U010V4C	CGS433U040FH1	CGS433U040X5C	CGS872U150FJ1	CGS872U150X5R
CGS552U015BB1	CGS552U015R2C	CGS503U040FJ1	CGS503U040X5R	CGS201T250BB1	CGS201T250R2C
CGS103U015BD1	CGS103U015R3C	CGS162U050BB1	CGS162U050R2C	CGS381T250BD1	CGS381T250R3C
CGS153U015BF1	CGS153U015R4C	CGS292U050BD1	CGS292U050R3C	CGS551T250BF1	CGS551T250R4C
CGS233U015DD1	CGS233U015V3C	CGS432U050BF1	CGS432U050R4C	CGS851T250DD1	CGS851T250V3C
CGS343U015DF1	CGS343U015V4C	CGS652U050DD1	CGS652U050V3C	CGS122T250DF1	CGS122T250V4C
CGS503U015D1	CGS503U015V5L	CGS962U050DF1	CGS962U050V4C	CGS192T250D1	CGS192T250V5L
CGS803U015FF1	CGS803U015X4C	CGS143U050D1	CGS143U050V5L	CGS392T250FH1	CGS392T250X5C
CGS104U015FH1	CGS104U015X5C	CGS223U050FF1	CGS223U050X4C	CGS131T350BB1	CGS131T350R2C
CGS124U015FJ1	CGS124U015X5R	CGS303U050FH1	CGS303U050X5C	CGS251T350BD1	CGS251T350R3C
CGS302U025BB1	CGS302U025R2C	CGS353U050FJ1	CGS353U050X5R	CGS371T350BF1	CGS371T350R4C
CGS562U025BD1	CGS562U025R3C	CGS821U075BB1	CGS821U075R2C	CGS801T350DF1	CGS801T350V4C
CGS822U025BF1	CGS822U025R4C	CGS152U075BD1	CGS152U075R3C	CGS302T350FJ1	CGS302T350X5R
CGS123U025DD1	CGS123U025V3C	CGS232U075BF1	CGS232U075R4C	CGS750T450BB1	CGS750T450R2C
CGS183U025DF1	CGS183U025V4C	CGS342U075DD1	CGS342U075V3C	CGS141T450BD1	CGS141T450R3C
CGS273U025D1	CGS273U025V5L	CGS502U075DF1	CGS502U075V4C	CGS211T450BF1	CGS211T450R4C
CGS433U025FF1	CGS433U025X4C	CGS752U075D1	CGS752U075V5L	CGS321T450DD1	CGS321T450V3C
CGS573U025FH1	CGS573U025X5C	CGS123U075FF1	CGS123U075X4C	CGS481T450DF1	CGS481T450V4C
CGS673U025FJ1	CGS673U025X5R	CGS122U100BD1	CGS122U100R3C	CGS112T450FF1	CGS112T450X4C
CGS222U040BB1	CGS222U040R2C	CGS182U100BF1	CGS182U100R4C	CGS152T450FH1	CGS152T450X5C
CGS422U040BD1	CGS422U040R3C	CGS402U100DF1	CGS402U100V4C	CGS182T450FJ1	CGS182T450X5R
CGS622U040BF1	CGS622U040R4C	CGS401U150BB1	CGS401U150R2C		

Consult your local Mallory distributor for price information.

Type CG Computer Grade Capacitors

MALLORY

The CG's, the original aluminum electrolytic computer grade capacitors, were specifically designed and produced by Mallory during the early 1950's. They were made to provide the optimum in high reliability energy storage and filtering circuits demanded by a most vital national defense electronic system. These many thousands of CG capacitors are continuing to perform their functions. Mallory's present CG capacitor product retains all of the basic, time proven design standards of reliability to meet +85°C operating conditions. Modern processing techniques also make CG capacitors available in higher capacitance values and lower ESR per container size without sacrifice of quality or performance. Request bulletin 4-304 for complete technical data. For pricing, refer to price sheet No. 302. Replaces 32D; FAH; 500; DCM.



HIGHLIGHTS

Capacitance Range—40 to 160,000 μ F
 Voltage Range—10 to 450 WVDC
 Capacity Tolerance—U = -10, +75%; T = -10, +50%
 Operating Temperature—-40°C to +85°C

FEATURES

Long Life
 Low leakage current
 Low ESR
 High ripple
 PVC sleeve
 High post terminals (standard)

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
10 WVDC; 15 VDC SURGE				
6,000	.152	2.77	R3C	CG6602U010R3C
7,500	.123	2.60	R2C	CG752U010R2C
10,000	.078	4.42	U3C	CG1030U010U3C
13,500	.046	6.21	V3C	CG1352U010V3C
14,000	.066	4.20	R3C	CG1430U010R3C
21,000	.044	5.83	R4C	CG2130U010R4C
43,500	.028	11.39	X4C	CG4352U010X4C
46,000	.021	10.00	V4C	CG4630U010V4C
160,000	.013	19.34	X5L	CG1640U010K5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
15 WVDC; 20 VDC SURGE				
2,500	.307	1.64	R2C	CG252U015R2C
4,500	.101	3.40	R3C	CG452U015R3C
6,400	.095	3.98	R4C	CG642U015R4C
6,500	.119	2.63	R2C	CG652U015R2C
8,000	.077	4.46	U3C	CG802U015U3C
10,500	.044	6.32	V3C	CG1052U015V3C
11,000	.057	7.27	U4C	CG1130U015U4C
12,000	.065	4.24	R3C	CG1230U015R3C
14,000	.033	8.25	V4C	CG1430U015V4C
18,000	.043	5.88	R4C	CG1830U015R4C
21,000	.038	6.32	U3C	CG2130U015U3C
27,000	.030	7.63	V3C	CG2730U015V3C
34,000	.022	12.83	X4C	CG3430U015X4C
40,000	.021	10.00	V4C	CG4030U015V4C
53,000	.017	16.68	X5L	CG5330U015X5L
140,000	.012	19.55	X5L	CG1440U015X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
25 WVDC; 40 VDC SURGE				
1,500	.246	1.83	R2C	CG152U025R2C
2,800	.132	2.97	R3C	CG282U025R3C
3,300	.173	2.19	R2C	CG332U025R2C
3,800	.087	4.16	R4C	CG382U025R4C
4,500	.074	4.54	U3C	CG452U025U3C
6,000	.056	5.61	V3C	CG602U025V3C
6,300	.091	3.58	R3C	CG632U025R3C
8,500	.040	7.54	V4C	CG852U025V4C
9,200	.062	4.91	R4C	CG922U025R4C
10,000	.058	5.13	U3C	CG1030U025U3C
13,000	.045	6.27	V3C	CG1330U025V3C
13,500	.045	8.07	W4C	CG1352U025W4C
20,000	.030	8.74	V4C	CG2030U025V4C
20,000	.031	10.67	X4C	CG2030U025X4C
32,000	.033	9.39	W4C	CG3230U025W4C
48,000	.023	12.39	X4C	CG4830U025X4C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
35 WVDC; 50 VDC SURGE				
1,100	.241	1.85	R2C	CG112U035R2C
2,100	.126	3.04	R3C	CG212U035R3C
2,300	.183	2.13	R2C	CG232U035R2C
3,600	.075	4.25	U3C	CG362U035U3C
4,300	.098	3.44	R3C	CG432U035R3C
4,700	.058	5.53	V3C	CG472U035V3C
5,300	.033	7.64	U4C	CG532U035U4C
6,900	.040	7.56	V4C	CG692U035V4C
9,500	.046	6.23	V3C	CG952U035V3C
11,000	.044	8.11	W4C	CG1130U035W4C
11,000	.039	7.06	U4C	CG1130U035U4C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
35 WVDC; 50 VDC SURGE				
14,000	.031	8.52	V4C	CG1430U035V4C
22,000	.035	9.08	W4C	CG2230U035W4C
24,000	.025	13.69	X5L	CG2430U035X5L
33,000	.025	12.01	X4C	CG3330U035X4C
49,000	.017	16.59	X5L	CG4930U035X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
50 WVDC; 75 VDC SURGE				
800	.426	1.39	R2C	CG801U050R2C
1,500	.175	2.58	R3C	CG152U050R3C
1,500	.364	1.51	R2C	CG152U050R2C
2,000	.136	3.32	R4C	CG202U050R4C
2,500	.141	3.28	U3C	CG252U050U3C
2,900	.188	2.49	R3C	CG292U050R3C
3,300	.088	4.50	V3C	CG332U050V3C
4,300	.127	3.43	R4C	CG432U050R4C
4,500	.064	5.95	V4C	CG452U050V4C
5,000	.112	3.68	U3C	CG502U050U3C
6,500	.089	4.47	V3C	CG652U050V3C
7,300	.064	6.72	W4C	CG732U050W4C
7,400	.076	5.06	U4C	CG742U050U4C
9,500	.061	6.09	V4C	CG952U050V4C
10,000	.047	8.77	X4C	CG1030U050X4C
15,000	.050	7.62	W4C	CG1530U050W4C
16,500	.028	13.03	X5L	CG1652U050X5L
22,000	.037	9.85	X4C	CG2230U050X4C
33,000	.025	13.69	X5L	CG3330U050X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
75 WVDC; 100 VDC SURGE				
600	.854	0.98	R2C	CG601U075R2C
800	.644	1.13	R2C	CG801U075R2C
1,000	.190	2.48	R3C	CG102U075R3C
1,500	.157	3.10	R4C	CG152U075R4C
1,500	.342	1.84	R3C	CG152U075R3C
2,000	.121	3.54	U3C	CG202U075U3C
2,200	.233	2.54	R4C	CG222U075R4C
2,500	.100	4.22	V3C	CG252U075V3C
2,600	.201	2.15	U3C	CG262U075U3C
2,600	.093	4.59	U4C	CG262U075U4C
3,300	.161	3.32	V3C	CG332U075V3C
3,450	.072	5.61	V4C	CG3451U075V4C
3,800	.138	3.77	U4C	CG382U075U4C
4,900	.109	4.56	V4C	CG492U075V4C
5,500	.055	7.26	W4C	CG552U075W4C
7,900	.082	5.94	W4C	CG792U075W4C
8,200	.058	7.89	X4C	CG822U075X4C
11,000	.033	10.38	X4C	CG1130U075X4C
12,500	.027	13.17	X5L	CG1252U075X5L
17,000	.022	14.44	X5L	CG1730U075X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
100 WVDC; 135 VDC SURGE				
400	.951	0.93	R2C	CG401U100R2C
770	.493	1.54	R3C	CG771U100R3C
1,000	.160	3.07	R4C	CG102U100R4C
1,100	.345	2.08	R4C	CG112U100R4C
1,300	.295	2.27	U3C	CG132U100U3C
1,700	.097	4.49	U4C	CG172U100U4C
2,250	.076	5.46	V4C	CG2251U100V4C
2,500	.070	5.70	V4C	CG252U100V4C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
100 WVDC; 135 VDC SURGE				
3,600	.055	7.28	W4C	CG362U100W4C
4,000	.050	7.60	W4C	CG402U100W4C
5,300	.041	9.34	X4C	CG532U100X4C
5,900	.039	9.64	X4C	CG592U100X4C
8,300	.027	13.09	X5L	CG832U100X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
150 WVDC; 185 VDC SURGE				
275	.805	1.01	R2C	CG2750U150R2C
500	.442	1.62	R3C	CG501U150R3C
700	.316	2.18	R4C	CG701U150R4C
1,150	.171	3.37	U4C	CG1151U150U4C
1,550	.129	4.18	V4C	CG1551U150V4C
2,500	.102	5.33	W4C	CG252U150W4C
3,600	.074	6.97	X4C	CG362U150X4C
5,600	.048	9.87	X5L	CG562U150X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
200 WVDC; 250 VDC SURGE				
180	1.214	0.82	R2C	CG181T200R2C
340	.643	1.34	R3C	CG341T200R3C
450	.485	1.76	R4C	CG451T200R4C
550	.400	1.95	U3C	CG551T200U3C
750	.296	2.07	V3C	CG751T200V3C
1,000	.221	3.20	V4C	CG102T200V4C
1,650	.145	4.47	W4C	CG1651T200W4C
2,450	.100		X4C	CG2451T200X4C
3,800	.065	8.47	X5L	CG382T200X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
250 WVDC; 300 VDC SURGE				
140	1.504	0.74	R2C	CG141T250R2C
272	.766	1.23	R3C	CG275T250R3C
375	.561	1.63	R4C	CG375T250R4C
600	.355	2.23	V3C	CG601T250V3C
800	.266	2.91	V4C	CG801T250V4C
3,000	.077	7.78	X5L	CG302T250X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
300 WVDC; 350 VDC SURGE				
225	.956	1.10	R3C	CG225T300R3C
325	.662	1.50	R4C	CG325T300R4C
525	.414	2.07	V3C	CG525T300V3C
700	.310	2.70	V4C	CG701T300V4C
2,600	.086	7.38	X5L	CG262T300X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
350 WVDC; 400 VDC SURGE				
100	1.935	0.65	R2C	CG101T350R2C
180	1.075	1.04	R3C	CG181T350R3C
250	.774	1.39	R4C	CG251T350R4C
400	.488	1.90	V3C	CG401T350V3C
550	.354	2.52	V4C	CG551T350V4C
1,300	.152	4.84	X4C	CG132T350X4C
2,000	.100	6.84	X5L	CG202T350X5L

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case Code	Catalog Number
400 WVDC; 475 VDC SURGE				
150	1.318	1.06	R4C	CG151T400R4C
325	.611	1.92	V4C	CG325T400V4C
530	.359	2.84	W4C	CG531T400W4C

Cap. (MFD)	Max. ESR (ohms) @ 120Hz	Max. Ripple RMS Amps @ 120Hz +85°C	*Case
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CG — COMPUTER GRADE CROSS REFERENCE

The following cross reference contains old and new type numbers. As stocks of the old numbers are exhausted they will be replaced by the new number shown adjacent to it in the cross reference.

There is no difference in the capacitor, only the part number is changed. Customers can switch to the new number with complete confidence.

Old Number	New Number	Old Number	New Number	Old Number	New Number
CG63U10B1	CG602U010R3C	CG332U050K1	CG332U050V3C	CG451T200C1	CG451T200R4C
CG14U10H1	CG103U010U3C	CG452U050D1	CG452U050V4C	CG551T200H1	CG551T200U3C
CG1352U10K1	CG1352U010V3C	CG732U050E1	CG732U050W4C	CG751T200K1	CG751T200V3C
CG4352U10F1	CG4352U010X4C	CG14U050F1	CG103U050X4C	CG13T200D1	CG102T200V4C
CG252U15A1	CG252U015R2C	CG1652U050G1	CG1652U050X5L	CG1651T200E1	CG1651T200W4C
CG452U15B1	CG452U015R3C	CG62U75A1	CG601U075R2C	CG2451T200F1	CG2451T200X4C
CG642U15C1	CG642U015R4C	CG13U75B1	CG102U075R3C	CG382T200G1	CG382T200X5L
CG83U15H1	CG802U015U3C	CG152U75C1	CG152U075R4C	CG141T250A1	CG141T250R2C
CG1052U15K1	CG1052U015V3C	CG23U75H1	CG202U075U3C	CG2750T250B1	CG2750T250R3C
CG113U15J1	CG113U015U4C	CG252U75K1	CG252U075V3C	CG3750T250C1	CG3750T250R4C
CG143U15D1	CG143U015V4C	CG262U75J1	CG262U075U4C	CG62T250K1	CG601T250V3C
CG343U15F1	CG343U015X4C	CG3451U75D1	CG3451U075V4C	CG82T250D1	CG801T250V4C
CG533U15G1	CG533U015X5L	CG552U75E1	CG552U075W4C	CG33T250G1	CG302T250X5L
CG152U25A1	CG152U025R2C	CG822U75F1	CG822U075X4C	CG2250T300B1	CG2250T300R3C
CG282U25B1	CG282U025R3C	CG1252U75G1	CG1252U075X5L	CG3250T300C1	CG3250T300R4C
CG382U25C1	CG382U025R4C	CG42U100A1	CG401U100R2C	CG5250T300K1	CG5250T300V3C
CG452U25H1	CG452U025U3C	CG13U100C1	CG102U100R4C	CG72T300D1	CG701T300V4C
CG63U25K1	CG602U025V3C	CG132U100H1	CG132U100U3C	CG262T300G1	CG262T300X5L
CG852U25D1	CG852U025V4C	CG172U100J1	CG172U100U4C	CG12T350A1	CG101T350R2C
CG1352U25E1	CG1352U025W4C	CG2251U100D1	CG2251U100V4C	CG181T350B1	CG181T350R3C
CG24U25F1	CG203U025X4C	CG362U100E1	CG362U100W4C	CG251T350C1	CG251T350R4C
CG112U35A1	CG112U035R2C	CG532U100F1	CG532U100X4C	CG42T350K1	CG401T350V3C
CG212U35B1	CG212U035R3C	CG832U100G1	CG832U100X5L	CG551T350D1	CG551T350V4C
CG362U035H1	CG362U035U3C	CG2750U150A1	CG2750U150R2C	CG132T350F1	CG132T350X4C
CG472U35K1	CG472U035V3C	CG52U150B1	CG501U150R3C	CG23T350G1	CG202T350X5L
CG532U35J1	CG532U035U4C	CG72U150C1	CG701U150R4C	CG151T400C1	CG151T400R4C
CG692U35D1	CG692U035V4C	CG1151U150J1	CG1151U150U4C	CG3250T400D1	CG3250T400V4C
CG113U35E1	CG113U035W4C	CG1551U150D1	CG1551U150V4C	CG531T400E1	CG531T400W4C
CG243U35G1	CG243U035X5L	CG252U150E1	CG252U150W4C	CG41T450A1	CG400T450R2C
CG82U50A1	CG801U050R2C	CG362U150F1	CG362U150X4C	CG111T450C1	CG111T450R4C
CG152U50B1	CG152U050R3C	CG562U150G1	CG562U150X5L	CG141T450H1	CG141T450U3C
CG23U50C1	CG202U050R4C	CG181T200A1	CG181T200R2C	CG241T450D1	CG241T450V4C
CG252U50H1	CG252U050U3C	CG341T200B1	CG341T200R3C		

Consult your local Mallory distributor for price information.

Type CGR Computer Grade Capacitors

MALLOY

High Performance

The CGR is specifically designed as a low ESR, high ripple current power supply filtering capacitor. Constructed in a rugged aluminum can with a choice of high or low 10-32 screw insert terminal assemblies. (High post terminals are standard and in stock for immediate delivery.) Outstanding features of the CGR are low ESR, low DC leakage current plus high ripple current capability over broad temperature and frequency ranges.

With capacitances up to 260,000µF and ripple capability up to 35.7 amperes at 20kHz at +85°C the CGR handles extreme application requirements with ease and reliability. The CGR has been successfully utilized as an output capacitor in some high frequency switching regulator power supplies. Ask for Bulletin 4-313 for additional rating and complete specifications. (Replaces 602D, 32DR, FAM, UFH, 92F, 101). For prices, reference price sheet No. 308.



HIGHLIGHTS

Capacitance Range — 140 to 260,000µF
 Voltage Range — 6.3 to 100VDC
 Capacity Tolerance: — 10% + 75% 0 thru 50 WVDC
 — 10% + 50% 75 and 100 WVDC
 Operating Temperature: — 55°C to +85°C
 36 Case Sizes 1.375 x 1.750 thru
 3.00 x 5.625

Grade — High Performance
 Key Features — Safety Vent Construction
 Wide Variety of Case Sizes
 ‡Choice of Terminals, High or Low Post
 High Ripple Capability
 Low ESR/Low Leakage Current

APPLICATIONS

Computers, Mainframe & Mini
 Hi-Ripple Power Supplies
 Energy Storage Applications
 X-Ray Equipment
 Medical Equipment
 Telecommunication
 Broadcast Equipment
 Industrial Test Equipment
 Power Filtering

Type CGR

For CGR Hardware and
 Date see page 00.

In charge-discharge applications such as welders, photoflash, strob lighting, magnetizers, etc., use type HES series for longer life. See Page 15.

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
6.3 VDC; 10 VDC SURGE				
53,000	.0098	13.5	V3C	CGR533U6R3V3C
260,000	.0036	35.7	X5L	CGR264U6R3X5L
7.5 VDC; 12 VDC SURGE				
8,000	.0329	4.7	R2C	CGR802U7R5R2C
12,000	.0224	6.1	R2C	CGR123U7R5R2C
32,000	.0084	13.4	R4C	CGR323U7R5R4C
34,000	.0128	10.9	U3C	CGR343U7R5U3C
42,000	.0063	17.0	R5C	CGR423U7R5R5C
47,000	.0098	13.5	V3C	CGR473U7R5V3C
48,000	.0090	14.7	U4C	CGR483U7R5U4C
64,000	.0068	18.6	U5C	CGR643U7R5U5C
66,000	.0068	17.9	V4C	CGR663U7R5V4C
72,000	.0060	20.6	U5L	CGR723U7R5U5L
79,000	.0085	16.7	W3C	CGR793U7R5W3C
88,000	.0053	22.7	V5C	CGR883U7R5V5C
99,000	.0045	25.1	V5L	CGR993U7R5V5L
110,000	.006	22.2	W4C	CGR114U7R5W4C
150,000	.0043	28.1	W5C	CGR154U7R5W5C
160,000	.0043	30.9	W5L	CGR164U7R5W5L
200,000	.0043	32.4	X5C	CGR204U7R5X5C
230,000	.0037	35.6	X5L	CGR234U7R5X5L

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
16 WVDC; 20 VDC SURGE (Continued)				
42,000	.0075	17.7	V4C	CGR423U016V4C
46,000	.006	20.2	U5L	CGR463U016U5L
51,000	.0085	16.6	W3C	CGR513U016W3C
60,000	.0068	19.1	W3L	CGR603U016W3L
84,000	.0051	24.9	W4L	CGR843U016W4L
100,000	.0043	30.6	W5L	CGR104U016W5L
140,000	.0038	34.8	X5L	CGR144U016X5L
20 WVDC; 30 VDC SURGE				
3,000	.0336	4.6	R1N	CGR302U020R1N
4,600	.0224	6.1	R2C	CGR462U020R2C
10,000	.0105	11.4	R3L	CGR103U020R3L
13,000	.0135	10.8	V2L	CGR133U020V2L
21,000	.009	15.3	V3L	CGR213U020V3L
24,000	.0068	18.3	U5C	CGR243U020U5C
30,000	.0085	16.5	W3C	CGR303U020W3C
37,000	.0053	24.6	V5L	CGR373U020V5L
48,000	.0068	22.0	X3L	CGR483U020X3L
63,000	.0043	30.3	W5L	CGR633U020W5L
88,000	.0037	35.1	X5L	CGR883U020X5L

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
40 WVDC; 60 VDC SURGE (Continued)				
26,000	.0051	26.8	W5C	CGR263U040W5C
31,000	.0051	28.1	X4L	CGR313U040X4L
40,000	.0039	34.3	X5L	CGR403U040X5L
50 WVDC; 75 VDC SURGE				
1,000	.1001	2.6	R1N	CGR102U050R1N
1,500	.0672	3.5	R2C	CGR152U050R2C
2,900	.0357	5.8	R3C	CGR292U050R3C
4,100	.0252	7.8	R4C	CGR412U050R4C
5,500	.0189	9.8	R5C	CGR552U050R5C
6,200	.0168	10.9	R5L	CGR622U050R5L
7,600	.0165	10.5	V3C	CGR762U050V3C
10,000	.0113	13.9	V4C	CGR103U050V4C
16,000	.0085	19.6	V5L	CGR163U050V5L
21,000	.0077	20.2	W4L	CGR213U050W4L
27,000	.006	24.9	W5L	CGR273U050W5L
37,000	.0051	29.6	X5L	CGR373U050X5L

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
12 WVDC; 15 VDC SURGE				
5,700	.0336	4.6	R1N	CGR572U012R1N
8,600	.0224	6.1	R1C	CGR862U012R1C
12,000	.0154	8.0	R2L	CGR123U012R2L
16,000	.0119	9.8	R3C	CGR163U012R3C
18,000	.0188	8.3	V2C	CGR183U012V2C
23,000	.0084	13.3	R4C	CGR233U012R4C
34,000	.0056	18.6	R5L	CGR343U012R5L
56,000	.0060	20.1	V4L	CGR563U012V4L
94,000	.0051	24.9	W4L	CGR943U012W4L
100,000	.0043	27.9	W5C	CGR104U012W5C
140,000	.0043	32.3	X5C	CGR144U012X5C
160,000	.0038	35.4	X5L	CGR164U012X5L

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
30 WVDC; 45 VDC SURGE				
2,200	.035	4.6	R1N	CGR222U030R1N
4,900	.0248	6.6	U2C	CGR492U030U2C
7,400	.0105	11.3	R3L	CGR742U030R3L
10,000	.0077	14.9	R4L	CGR103U030R4L
12,000	.0098	13.1	V3C	CGR123U030V3C
15,000	.009	15.1	V3L	CGR153U030V3L
21,000	.0068	19.8	V4L	CGR213U030V4L
27,000	.0053	24.4	V5L	CGR273U030V5L
30,000	.006	21.7	W4C	CGR303U030W4C
35,000	.0068	21.9	X3L	CGR353U030X3L
46,000	.0043	30.1	W5L	CGR463U030W5L
63,000	.0038	34.8	X5L	CGR633U030X5L

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
75 WVDC; 100 VDC SURGE				
550	.1078	2.5	R1N	CGR551T075R1N
1,200	.0497	4.4	R2L	CGR122T075R2L
1,800	.0329	6.5	R3L	CGR182T075R3L
2,600	.0231	8.5	R4L	CGR262T075R4L
3,100	.0225	8.2	V2L	CGR312T075V2L
4,000	.0173	10.1	V3C	CGR402T075V3C
4,700	.015	11.6	V3L	CGR472T075V3L
6,800	.0136	13.1	W3C	CGR682T075W3C
8,000	.0098	16.0	W3L	CGR802T075W3L
9,600	.0094	17.4	W4C	CGR962T075W4C
11,000	.0102	18.0	X3L	CGR113T075X3L
15,000	.0068	23.5	X4L	CGR153T075X4L
19,000	.0056	28.8	X5L	CGR193T075X5L

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
16 WVDC; 20 VDC SURGE				
7,700	.0231	6.1	R2C	CGR772U016R2C
11,000	.0161	8.0	R2L	CGR113U016R2L
14,000	.0119	9.8	R3C	CGR143U016R3C
16,000	.0173	8.7	U2L	CGR163U016U2L
20,000	.0084	13.2	R4C	CGR203U016R4C
30,000	.0098	13.2	V3C	CGR303U016V3C
35,000	.0083	15.3	V3L	CGR353U016V3L
41,000	.0068	18.4	U5C	CGR413U016U5C

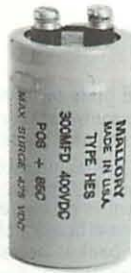
Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
40 WVDC; 60 VDC SURGE				
1,400	.0364	4.4	R1N	CGR142U040R1N
2,100	.0245	5.9	R2C	CGR212U040R2C
3,900	.0133	9.5	R3C	CGR392U040R3C
5,600	.0091	12.7	R4C	CGR562U040R4C
7,400	.007	16.2	R5C	CGR742U040R5C
9,600	.009	14.7	V3L	CGR962U040V3L
13,000	.0068	19.3	V4L	CGR133U040V4L
17,000	.0053	23.8	V5L	CGR173U040V5L
22,000	.006	24.1	W4L	CGR223U040W4L

Cap. (MFD)	Max. ESR (ohms) @ 20 KHZ	Max. Ripple RMS Amps @ 20KHZ +85°C	Case Code*	Catalog No.
100 WVDC; 135 VDC SURGE				
220	.126	2.4	R1N	CGR221T100R1N
330	.084	3.1	R2C	CGR331T100R2C
900	.0315	7.0	R4C	CGR901T100R4C
1,200	.0263	7.7	V2L	CGR122T100V2L
1,900	.0173	10.9	V3L	CGR192T100V3L
2,700	.012	14.3	V4L	CGR272T100V4L
3,400	.0098	17.7	V5L	CGR342T100V5L
4,500	.0094	18.6	W4L	CGR452T100W4L
6,200	.0077	22.4	X4L	CGR622T100X4L
8,000	.006	27.4	X5L	CGR802T100X5L

*Refer to Case Code Chart on page 15
 ‡High Post Available from Stock
 Low Post Available Special Order

Consult your local Mallory distributor for price information.

Specifications subject to
 change without notice.



TYPE HES HIGH ENERGY DISCHARGE CAPACITORS

The HES is an aluminum electrolytic capacitor in a round can with a molded top similar in appearance to our computer grade types. It is an energy storage capacitor having low DC leakage current, low internal resistance and inductance which contribute to a minimum of loss during high peak current discharge. Circuits demanding these discharge currents can destroy conventional type of capacitors. The HES is designed for charge-discharge applications such as: Capacitor discharge welders; Photoflash; Strobe lights; Magnetizers and Demagnetizers; Laser activation, Screw terminal standard. Solder Lug Terminal available special order. Consult factory for other ratings. Tolerance: -0% +50%. Operating Temperature -40°C to +85°C.

Cap.	Voltage	Max. ESR (ohms) @ 120Hz	Max. ±DCL (MA) @ 120Hz @ +25°C	*Size	Catalog No.
300	400	0.651	1.039	1 3/4 × 3 1/8	HES301G400U3C
500	400	0.397	1.342	1 3/4 × 4 5/8	HES501G400U4L
600	400	0.310	1.530	1 3/4 × 5 5/8	HES601G400U5L
800	400	0.254	1.697	2 × 5 1/8	HES801G400V5C
2100	400	0.102	2.750	3 × 5 5/8	HES212G400X5L
300	450	0.492	1.257	2 × 3 1/8	HES301G450V3C
400	450	0.419	1.350	2 × 3 5/8	HES401G450V3L
550	450	0.350	1.492	2 × 4 1/8	HES551G450V4C
1200	450	0.156	2.205	3 × 4 1/8	HES122G450X4C
1500	450	0.145	2.465	3 × 5 5/8	HES152G450X5L

±5 minutes electrification time @ +25°C.
*Bare Can Size.

Case Code Chart

CG†	Case Code CG	*Size (inches) Dia. × Length	Dim. "C"	Mtg. Clamp
R1N	R1N	1 3/8 × 1 3/4	1/2	VR3
R2C/BB	R2C/A	1 3/8 × 2 1/8		
R2L	R2L	1 3/8 × 2 3/8		
R3C/BD	R3C/B	1 3/8 × 3 1/8		
R3L	R3L	1 3/8 × 3 3/8		
R4C/BF1	R4C/C	1 3/8 × 4 1/8		
R4L	R4L	1 3/8 × 4 3/8		
R5C	R5C	1 3/8 × 5 1/8		
R5L	R5L	1 3/8 × 5 3/8		
U2C	U2C	1 3/4 × 2 1/8	3/4	VR6
U2L	U2L	1 3/4 × 2 3/8		
U3C	U3C/H	1 3/4 × 3 1/8		
U4C	U4C/J	1 3/4 × 4 1/8		
U4L	U4L	1 3/4 × 4 3/8		
U5C	U5C	1 3/4 × 5 1/8		
U5L	U5L	1 3/4 × 5 3/8		
V2L	V2L	2 × 2 5/8	7/8	VR8
V3C/DD	V3C/K	2 × 3 1/8		
V3L	V3L	2 × 3 3/8		
V4C/DF	V4C/D	2 × 4 1/8		
V4L	V4L	2 × 4 3/8	7/8	VR8
V5C	V5C	2 × 5 1/8		
V5L/DI	V5L	2 × 5 3/8		
W3C	W3C	2 1/2 × 3 1/8	1 1/8	VR10
W3L	W3L	2 1/2 × 3 3/8		
W4C	W4C/E	2 1/2 × 4 1/8		
W4L	W4L	2 1/2 × 4 3/8		
W5C	W5C	2 1/2 × 5 1/8		
W5L	W5L	2 1/2 × 5 3/8		
X3L	X3L	3 × 3 3/8	1 1/4	VR12
X4C/FF	X4C/F	3 × 4 1/8		
X4L	X4L	3 × 4 3/8		
X5C/FH	X5C	3 × 5 1/8		
X5L	X5L/G	3 × 5 3/8		
X5R/FJ	X5R	3 × 5 5/8		
X6L	X6L	3 × 6 3/8		
X8L	X8L	3 × 8 3/8		

*Bare Can Size. Add .078" to diameter and .125" to length for PVC insulating sleeve.

†Insert "R" for CGR or "S" for CGS type.

MALLORY TYPE NUMBER

This identifies the basic capacitor design.

CAPACITANCE: Expressed in microfarads. The first two digits are significant figures, the third is the number of zeroes.

CAPACITANCE TOLERANCE

- U = -10%, +75% (0 to 150 volts)
- T = -10%, +50% (151 volts and up)
- G = -0%, +50%

DC VOLTAGE RATING: Expressed in volts. Zeroes are used to precede the voltage rating where necessary to complete the three digit block.

CASE CODE: (see Table of Dimensions above.)

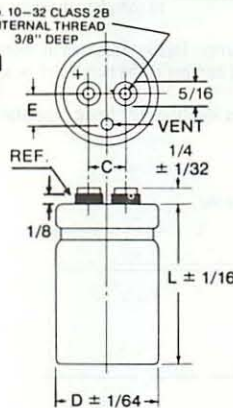
Mallory part numbers shown in the capacitor bulletin include a suffix consisting of (3) characters. [Example: CGS712U075V4C3PH]. This suffix indicates sleeve type (3 = PVC); the polarity (P = Polar); and the terminal type (H = High Post).

OUTLINE DIMENSIONS

Molded High Screw-Insert Terminal (H)

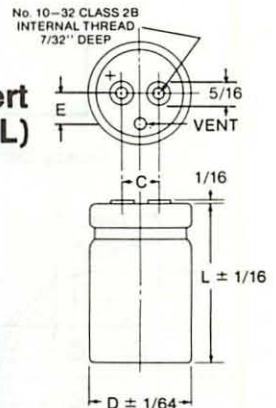
MOLDED INSULATING SHOULDER 7/16 DIA.

CAN DIA	E
1 3/8	25/64
1 3/4	29/64
2	1/2
2 1/2	5/8
3	3/4



Low Screw-Insert Terminals (L)

CAN DIA	E
1 3/8	25/64
1 3/4	29/64
2	1/2
2 1/2	5/8
3	3/4



CATALOG NUMBERING SYSTEM For Types CG, CGS, CGR and HES
Please Specify By Complete Number:

CG	403	U	015	CASE CODE
CGS	712	U	075	
CGR	104	U	016	
HES	301	G	400	

Consult your local Mallory distributor for price information.

Type SFC Stacked Foil Capacitors



Design features of the SFC capacitor, including welded plate to terminal connections and massive bus type terminals have made it possible to significantly lower the equivalent series resistance and inductance of the SFC capacitor type as compared to the more conventional computer grade capacitor.

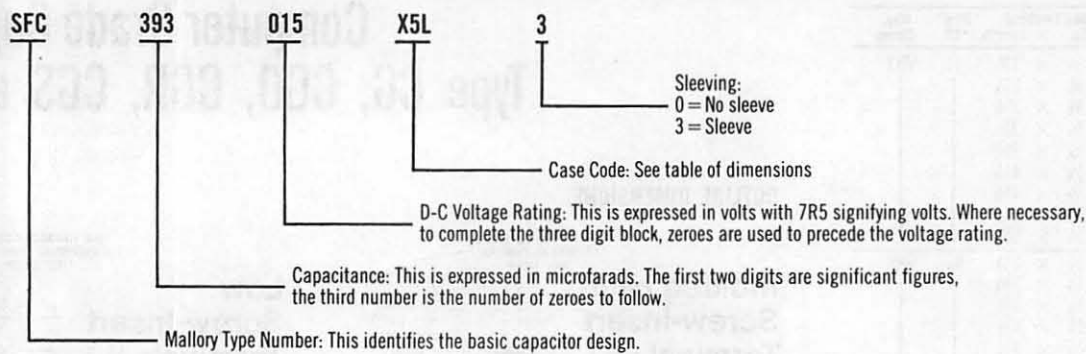
The lower AC loss characteristics of the SFC capacitor are manifested in lower equivalent series resistance, inductance, and impedance over a wide frequency range. This improved efficiency makes the SFC an excellent selection for those applications where high ripple current is encountered or where maximum effectiveness in accepting and releasing charge is required. The improved efficiency of this capacitor type additionally allows economy in size and weight where a multiple capacitor bank is necessary.

The SFC capacitor is available in a 3-inch diameter container and a height 4 1/8 inches or 5 1/8 inches. Standard capacitance values range from 6800 MFD to 100,000 MFD and DC working voltages range from 6VDC to 50VDC. The capacitor is equipped with a pressure sensitive safety vent and PVC insulating sleeve.

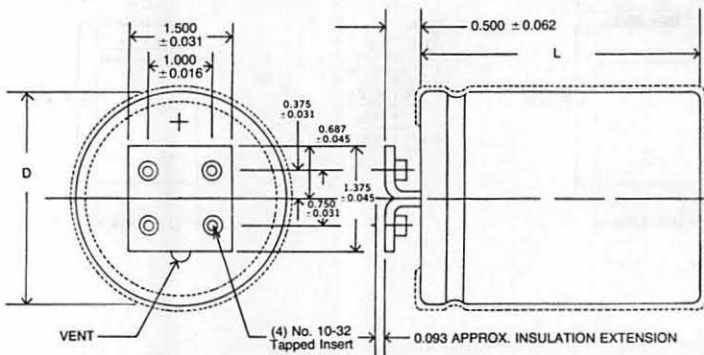
Operating Temperature: -40°C to +85°C. Replaces 432D. Ask for technical bulletin No. 4-310 for more detail. For prices, reference price sheet No. 309.

CATALOG NUMBERING SYSTEM

Please Specify By Complete Catalog Number, Such As:



Capacity Tolerance: -0, +100%



* CASE CODE CHART

Case Code*	No Outer Sleeve D=0.031 L=0.062		Outer Insulation D Max. L Max.		Typical Weight in Grams
X4C	3.000	4.125	3.078	4.250	555
X5L	3.000	5.625	3.078	5.750	666

Cap (Mfd)	Max. ESR (ohms) @ 120 Hz	Max. Ripple RMS Amps @ 120 Hz +85°C	Case Code	Catalog No.	Discontinued No.
6 WVDC; 8 VDC Surge					
56,000	.0025	36.0	X4C	SFC563006X4C3	SFC563W006X4C
100,000	.0020	48.0	X5L	SFC104006X5L3	SFC104W006X5L
7.5 WVDC; 10 VDC Surge					
47,000	.003	35.0	X4C	SFC4737R5X4C3	SFC473W7R5X4C
68,000	.0025	40.0	X5L	SFC6837R5X5L3	SFC683W7R5X5L
10 WVDC; 15 VDC Surge					
33,000	.003	30.0	X4C	SFC333010X4C3	SFC333W010X4C
56,000	.0025	37.0	X5L	SFC563010X5L3	SFC563W010X5L
15 WVDC; 20 VDC Surge					
27,000	.005	24.0	X4C	SFC273015X4C3	SFC273W015X4C
39,000	.0035	30.0	X5L	SFC393015X5L3	SFC393W015X5L

Cap (Mfd)	Max. ESR (ohms) @ 120 Hz	Max. Ripple RMS Amps @ 120 Hz +85°C	Case Code	Catalog No.	Discontinued No.
20 WVDC; 30 VDC Surge					
18,000	.006	20.0	X4C	SFC183020X4C3	SFC183W020X4C
27,000	.004	26.0	X5L	SFC273020X5L3	SFC273W020X5L
25 WVDC; 40 VDC Surge					
15,000	.0075	18.0	X4C	SFC153025X4C3	SFC153W025X4C
22,000	.005	24.0	X5L	SFC223025X5L3	SFC223W025X5L
30 WVDC; 45 VDC Surge					
12,000	.009	16.0	X4C	SFC123030X4C3	SFC123W030X4C
18,000	.006	22.0	X5L	SFC183030X5L3	SFC183W030X5L
40 WVDC; 55 VDC Surge					
8,200	.012	15.0	X4C	SFC822040X4C3	SFC822W040X4C
12,000	.010	20.0	X5L	SFC123040X5L3	SFC103W040X5L
50 WVDC; 70 VDC Surge					
6,800	.015	12.0	X4C	SFC682050X4C3	SFC682W050X4C

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

HC and NP capacitors are furnished in heavy-duty molded phenolic cases with integral safety vent. HC types are polarized; NP types are non-polarized. **Temp. Range:** -20°C to +85°C except (*) which is +65°C max. **Tolerance:** Type HC — 0-50 WVDC, -10%, +150%; 51-350 WVDC, -10%, +100%; 351 WVDC up, -10%, +50%. Type NP — ±25%, all units. For prices, reference price sheet No. 304.



POLARIZED TYPE HC

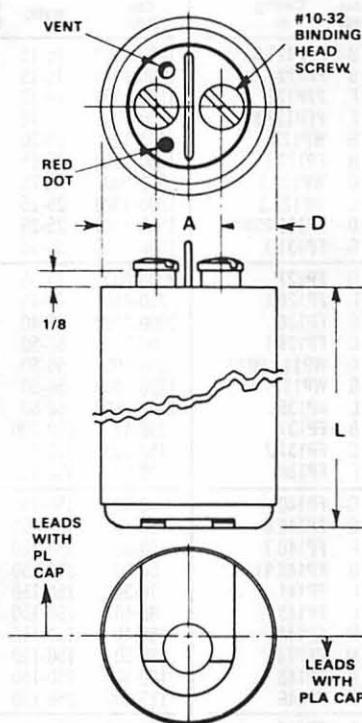
Cap., mfd	WV DC	* Size	Catalog No.
2,000	10	1	HC1020A
4,000	10	2	HC1060A
10,000	10	7	HC10100†
12,000	10	7	HC10120
2,000	15	1	HC1520A
4,000	15	3	HC1540A
6,000	15	4	HC1560A
2x5,000	20	7	HC2050-50*
6,000	20	5	HC2060A†
1,000	25	1	HC2510A
2,000	25	2	HC2520A
3,000	25	4	HC2530
4,000	25	4	HC2540A
5,000	25	7	HC2550
4,000	40	7	HC4040
4,000	40	5	HC4040A
500	50	2	HC5005
500	50	1	HC5005A
1,000	50	2	HC5010A
2,000	50	4	HC5020A
3,000	50	7	HC5030
4,000	50	7	HC5040
1,000	80	4	HC8010
2,000	80	7	HC8020
1,500	100	7	HC10015
500	150	4	HC15005
1,000	150	7	HC15010
1,000	150	5	HC15010A
200	200	4	HC20002
500	200	7	HC20005
500	200	4	HC20005A
200	250	4	HC25002
100	450	4	HC45001
300	450	7	HC45003

Type HC Symbols
†Semi-polarized.

NON-POLARIZED TYPE NP

Code Case	Cap. mfd	WV DC	Size	Catalog No.
200	125	2	NP1225A	
500	125	5	NP1255A	
100	250	5	NP2514	
150	250	5	NP2520	
15	300	1	NP3003A	
30	300	2	NP3006	
50	300	2	NP3008	
100	300	4	NP3014A	
150	300	7	NP3020	
200	300	7	NP3025	
50	450	4	NP4505	
100	450	7	NP4510	

HC-NP DATA & DIMENSIONS



‡PHOTOFLASH CAPACITORS

HC45003 — 300 mfd, 450 WVDC. Plastic case, 2¹/₁₆" dia. × 4³/₈". Max. DCL (at 5 min.) 5.5 mA.

FF45052 — 525 mfd, 450 WVDC. Plastic case, 2¹/₁₆" dia. × 4³/₈". Max. DCL (at 5 min.) 2.0 mA.

FP240 — Specially engineered FP capacitor for photoflash use. Dual separate section, 50 mfd at 450 WVDC each section. May be used in parallel for 100 mfd. Supplied with cardboard insulating tube. Uses standard FP mounting plate. 1³/₈" × 3" dia.

‡HES types are recommended for photoflash applications. See page 15.

Code Case	DIMEN. — INCHES		
	D	L	A
1	17/16	2 ³ / ₄	1/2
2	17/16	3 ³ / ₈	1/2
3	17/16	4 ³ / ₈	1/2
4	1 ¹³ / ₁₆	3 ³ / ₈	5/8
5	1 ¹³ / ₁₆	4 ³ / ₈	5/8
7	2 ¹ / ₁₆	4 ³ / ₈	7/8

For HC and NP Capacitor Hardware. See pages 40, 41 and 42.

Consult your local Mallory distributor for price information.

Type FP-WP Metal Can Electrolytic Capacitors

MALLORY



FP-WP Capacitors are designed for +85°C operation, through 450 volts, higher voltages designed for +65°C, and have standard twist-prong mounting lugs with solder terminals. PFP-PWP types use standard EIA printed circuit terminals and can be used in place of normal solder terminal types. All types use "etched cathode" construction for hum-free operation, and have an exclusive vent and seal design. Standard tolerance: Up to 50 WVDC, -10% to +150%; 51 to 350 WVDC, -10% to +100%; 351 WVDC and up -10% to +50%. For complete technical information request Bulletin 4-101. For prices, reference price sheet No. 300. Replaces: TVL, PCL, AA, BB, CC and DD. For FP-WP capacitor hardware and data see page 40 and 42.

Singles

Cap. (Mfd)	WVDC	Case Code	Catalog No.	Cap. (Mfd)	WVDC	Case Code	Catalog No.
2500	10	M	PWP031	125	200	B	PFP121.5
10000	10	G	FP031.8	125	200	B	FP122
1000	15	L	WP039	160	200	F	PFP122
2000	15	F	WP041	400	200	F	PFP122.9
3000	15	F	WP042	500	200	H	WP123
5000	15	G	FP042.6	950	200	H	FP123.3
10000	15	H	FP042.8	140	250	C	WP125.5
500	25	L	WP057	150	250	C	WP125.9
1000	25	F	WP059	160	250	D	FP125.95M**
1500	25	C	PWP060	160	250	G	FP131.7
2000	25	R	FP060.2	200	250	D	FP127
4000	25	G	FP060.4	750	250	I	FP128.1
5000	25	H	FP060.6	80	300	C	FP128
7500	25	N	FP060.8	100	300	C	FP129.1
4700	40	G	FP061.1	160	300	G	WP131.5M**
5000	45	N	FP062	200	300	G	WP132
100	50	L	WP064	30	350	L	FP135
150	50	L	WP064.2	50	350	B	FP137
500	50	F	WP065	60	350	C	FP137.2
500	50	B	WP066	80	350	F	FP138
1000	50	B	PFP066.4	125	350	G	FP140
1000	50	F	FP066.5	150	350	G	FP140.6
1250	50	G	PWP067	200	350	F	FP140.7
1500	50	F	WP068	250	350	G	FP140.91
2000	50	H	FP070	320	350	I	FP141
4000	50	G	FP071	15	450	L	FP143
50	150	L	FP115	20	450	M	FP144
100	150	L	FP116	20	450	M	PFP144
120	150	B	FP116.5	30	450	B	FP145
140	150	B	PFP116.8	40	450	C	FP146
150	150	B	FP117	50	450	D	FP147
150	150	F	FP117.5	60	450	F	FP148
200	150	F	FP118	80	450	G	FP149
300	150	F	FP119	100	450	G	FP150
1200	160	I	FP123.1	125	450	H	FP155
1400	175	N	FP123.2	90	500	G	FP187
120	200	F	FP121				

Duals

Cap. (Mfd)	WVDC	Case Code	Catalog No.	Cap. (Mfd)	WVDC	Case Code	Catalog No.
1000-1000	15-15	F	WP200	200-200	250-250	H	FP217.74
1000-1000	15-15	B	WP201-1	150-350	300-150	H	FP217.863
1500-1000	16-10	F	WP200.23	40-40	300-300	F	FP217.87
900-700	16-16	M	PFP200.171	75-75	300-300	G	FP217.9
500-100	20-20	L	WP200.5	120-20	300-300	G	FP218
1000-2000	25-15	F	WP200.2	150-100	300-300	H	FP219.7
500-500	25-25	F	FP201.14	200-100	300-300	J	FP219.9
1000-1000	25-25	F	PWP201.15	20-20	350-350	B	FP227
1500-1500	25-25	G	PWP201.3	30-30	350-350	C	FP227.3
1000-1000	35-35	F	WP201.5	80-40	350-350	G	FP227.5
3000-800	35-35	D	PSP201.6	80-80	350-350	H	FP277.6
750-750	40-40	T	PSP201.7	100-100	350-350	J	FP227.7
2000-2000	40-40	G	FP202	150-20	350-350	H	FP228.3
50-50	50-50	L	WP202.1	150-100	350-350	J	FP227.9
100-100	50-50	L	WP202.5	150-150	350-350	H	FP227.95
1000-1000	50-50	G	FP202.9	200-200	350-350	J	FP227.96
1500-1500	50-50	G	FP204	250-100	350-350	J	PFP227.97
150-47	100-100	M	FP206M	250-250	350-350	N	FP228.2
750-500	125-125	N	FP207.5	270-150	350-350	N	FP227.98
20-20	150-150	L	FP208	150-1500	400-50	I	FP228.4
40-40	150-150	L	FP212	120-120	400-400	I	WP229.52
50-30	150-150	L	FP213	80-200	450-250	I	FP230.21
50-30	150-150	L	PFP213.1	10-50	450-350	D	FP230.5
50-50	150-150	L	FP214	80-2	450-350	H	PFP230.7
70-30	150-150	B	PFP214.3	10-10	450-450	M	FP231
80-40	150-150	M	FP216.2	20-10	450-450	B	FP231.3
80-40	150-150	B	PWP214.4	20-20	450-450	B	FP234
80-50	150-150	B	WP216.24	30-30	450-450	G	FP237
100-50	150-150	B	PFP214.7	40-40	450-450	G	FP238
125-100	150-150	R	FP215	50-40	450-450	G	FP239
200-150	150-150	F	FP216.3	50-50	450-450	H	FP240‡
200-200	150-150	G	FP216.4	60-20	450-450	G	FP242
250-200	175-175	F	FP216.42	60-60	450-450	H	FP242.5
500-500	175-175	I	FP216.51	80-20	450-450	H	FP245.2
470-10	200-200	G	PFP216.2	80-80	450-450	J	FP245.5
250-100	200-200	G	FP216.7	100-40	450-450	J	FP247
300-250	200-200	G	FP216.71	100-60	450-450	I	FP248
400-200	200-200	G	FP216.81	80-160	475-250	N	FP253
300-300	200-200	I	FP216.9	80-40	475-475	H	FP264.5
20-20	250-250	L	FP217	80-50	475-475	J	FP266
40-40	250-250	M	FP221	40-40	500-500	G	FP288
750-100	250-250	S	FP217.81	60-40	500-500	J	FP290
150-150	250-250	G	FP217.7				

FP - WP AND PFP - PWP Case Code Chart

Key	Dia.	Lgth.	Key	Dia.	Lgth.	Key	Dia.	Lgth.
B	1"	2"	G	1 3/8"	2 1/2"	L	1"	1 1/2"
C	1"	2 1/2"	H	1 3/8"	3"	M	1"	1 3/4"
D	1"	3"	I	1 3/8"	4"	N	1 3/8"	4 1/2"
E	1"	4"	J	1 3/8"	3 1/2"	R	1 3/8"	1 3/4"
F	1 3/8"	2"	K	1"	3 1/2"	S	1 3/8"	5"
						T	1 3/8"	1 1/2"

**Suffix "M" designates plastic sleeve.
‡Can ungrounded for photoflash.

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

Triples

Cap. (Mfd)	WVDC	Case Code	Catalog No.	Cap. (Mfd)	WVDC	Case Code	Catalog No.
850-400-4	16-16-11.5	B	WP300.7	30-20-10	350-350-350	C	FP330.7
500-450-100	16-16-16	L	PPF300.18	40-40-40	350-350-350	G	PPF330.8
500-500-500	16-16-16	L	PPF300.86	80-60-60	350-350-350	I	FP331.3
2000-2000-50	40-40-40	J	FP303.1	100-100-10	350-350-350	J	FP332.4
1900-1900-1900	40-40-40	H	FP303.2	140-140-20	350-350-350	I	WP332.44
750-700-500	50-40-40	R	FP303.3	160-60-140	350-350-350	I	PPF331.4
750-1500-500	50-40-40	G	FP303.9	200-80-120	350-350-350	S	FP331.91
500-500-100	50-50-50	C	FP310.1	80-80-20	400-200-25	F	FP332.451
1500-1500-200	50-50-50	H	FP310.2	80-80-200	400-200-25	G	FP332.452
80-60-250	150-150-10	C	FP302.5	80-80-100	400-200-50	H	FP332.47
40-40-20	150-150-25	L	FP310	10-4-20	400-350-25	L	FP332.51
50-50-20	150-150-25	M	FP311	80-40-100	400-400-50	J	FP332.2
400-400-500	150-150-35	H	FP311.31	100-10-20	400-400-50	F	FP333.14
30-50-40	150-150-150	B	PPF311.63	100-40-100	400-400-350	I	FP336.86
40-40-40	150-150-150	M	FP311.5	100-30-20	400-400-400	I	FP333.95
50-30-20	150-150-150	M	PPF311.62	100-100-40	400-400-400	J	FP333.971
50-50-50	150-150-150	B	FP311.65	150-100-15	400-400-400	I	FP337
60-40-20	150-150-150	B	FP311.61	50-160-50	450-250-50	J	FP341.6
70-40-40	150-150-150	B	FP311.8	80-2-25	450-350-25	H	FP342.75
80-40-20	150-150-150	B	FP311.71	80-50-100	450-350-200	I	FP342.8
80-60-40	150-150-150	C	FP311.76	20-20-20	450-350-350	D	FP343.5
120-80-40	150-150-150	F	FP311.85	50-10-160	450-400-250	J	FP343.2
300-100-80	150-150-150	G	FP312.6	10-10-20	450-450-20	B	FP345.2
390-109-47	160-160-160	F	FP311.77	20-20-20	450-450-25	C	FP345.8
50-250-250	160-160-160	G	FP312.711	40-40-20	450-450-25	G	FP346
250-200-10	175-150-150	G	PPF312.61	10-10-40	450-450-50	B	FP365
700-500-150	175-175-50	H	FP311.78	80-20-100	450-450-50	H	FP368.3
320-300-20	175-175-150	H	FP312.72	80-80-50	450-450-50	H	FP368.61
200-50-400	175-175-175	H	PPF312.71	40-40-40	450-450-150	G	FP369.1
400-500-500	200-40-40	G	FP312.7	40-40-100	450-450-200	J	FP375
60-200-40	200-150-150	G	FP312.8	80-80-10	450-450-400	H	FP375.73
200-200-40	200-150-150	G	FP314.8	80-80-20	450-450-400	N	FP375.75
400-50-100	200-200-100	F	FP318.71	4-20-50	450-450-450	E	FP375.45
60-60-40	200-200-200	F	WP318.77	10-10-10	450-450-450	C	FP375.8
160-150-80	200-200-200	F	FP318.72	20-10-10	450-450-450	D	FP376.3
250-100-5	200-200-200	G	FP318.81	20-20-20	450-450-450	F	FP376.5
250-200-10	200-200-200	H	FP318.8	30-30-30	450-450-450	G	FP376.7
250-200-50	200-200-200	H	FP318.85	40-40-10	450-450-450	G	FP376.8
250-200-50	200-200-200	H	PPF318.85	40-40-20	450-450-450	H	FP376.9
150-150-200	200-200-200	H	FP318.86	40-40-40	450-450-450	H	FP377.1
250-150-200	200-200-200	H	PPF318.87	60-40-40	450-450-450	J	FP377.7
500-200-50	200-200-200	G	FP318.91	80-30-20	450-450-450	G	FP377.71
150-150-80	250-200-200	F	FP318.88	80-40-20	450-450-450	I	FP378
100-100-600	250-250-100	J	FP318.883	80-40-30	450-450-450	I	FP378.1
100-100-750	250-250-100	G	FP318.89	80-40-40	450-450-450	I	FP378.4
100-100-150	250-250-200	F	FP318.9	80-50-30	450-450-450	H	FP378.45
20-20-20	250-250-250	M	FP31.8	10-4-100	475-300-50	B	FP384.16
40-20-20	250-250-250	B	FP321	40-80-10	475-450-450	J	FP385.5
40-40-40	250-250-250	C	FP321.5	50-18-40	475-475-25	G	FP385.51
80-80-60	250-250-250	F	FP323	80-80-20	475-475-350	H	FP385.7
100-400-400	275-200-200	N	FP323.01	10-10-10	475-475-475	L	FP394
100-100-1000	275-275-75	G	FP323.1	30-30-20	475-475-475	G	FP396
4-80-10	300-175-150	L	FP326.68	40-20-20	475-475-475	G	FP396.1
40-200-200	300-175-175	F	FP326.69	40-30-10	475-475-475	G	FP396.12
100-60-20	300-250-250	G	FP335	80-10-18	475-475-475	H	FP396.22
140-100-60	300-300-50	H	FP326.7	80-10-30	475-475-475	J	FP397.1
80-40-40	300-300-300	G	FP326.62	30-20-20	500-500-500	G	FP399.4
150-30-30	300-300-300	H	FP326.75	40-20-20	500-500-500	H	FP399.5
140-100-20	300-300-300	J	FP326.78				
200-100-2	300-300-300	H	FP326.79				
50-500-1000	350-40-40	G	PPF326.79				
50-500-2500	350-40-40	I	PPF326.80				
30-500-500	350-50-35	B	FP326.801				
150-100-100	350-50-50	F	FP326.81				
250-250-50	350-175-175	I	FP327.82				
100-150-80	350-200-200	G	PPF327.36				
50-50-1000	350-300-35	G	FP331.1				
40-40-40	350-300-300	F	FP327.89				
150-100-200	350-350-25	G	FP330.16				
150-5-100	350-350-50	J	FP330.246				
150-100-100	350-350-50	H	FP330.247				
125-20-20	350-350-150	S	FP330.24				
400-80-40	350-350-175	H	FP330.30				
100-60-20	350-350-200	H	FP330.26				
10-10-10	350-350-350	M	FP330.5				
20-20-20	350-350-350	C	PPF30.6				

**Suffix "M" designates plastic sleeve.
 ‡Can ungrounded for photoflash.

FP - WP AND PFP - PWP Case Code Chart

Key	Dia.	Lgth.	Key	Dia.	Lgth.	Key	Dia.	Lgth.
B	1"	2"	G	1 3/8"	2 1/2"	L	1"	1 1/2"
C	1"	2 1/2"	H	1 3/8"	3"	M	1"	1 3/4"
D	1"	3"	I	1 3/8"	4"	N	1 3/8"	4 1/2"
E	1"	4"	J	1 3/8"	3 1/2"	R	1 3/8"	1 3/4"
F	1 3/8"	2"	K	1"	3 1/2"	S	1 3/8"	5"
						T	1 3/8"	1 1/2"

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Type FP-WP Metal Can Electrolytic Capacitors



Quads

Cap. (Mfd)	WVDC	Case Code	Catalog No.	Cap. (Mfd)	WVDC	Case Code	Catalog No.
850-400-100-15	16-16-16-11.5rms	R	FP401.9	10-4-4-20	400-350-150-25	F	FP420.438
400-600-120-80	100-100-100-100	J	FPF404	40-100-5-100	400-350-150-50	J	FPF420.439
400-600-200-60	125-100-50-40	J	FP407.4	150-100-20-20	400-350-350-350	N	FPF420.366
200-500-500-500	125-100-60-35	J	FP407.6	80-40-100-20	400-400-50-25	H	FP420.6
400-400-500-500	150-150-35-35	N	FP407.7	100-10-30-20	400-400-50-50	H	FP420.7
400-400-40-500	150-150-150-35	N	FP411.33	80-40-40-100	400-400-300-50	J	FP420.97
250-250-20-100	165-150-150-50	H	FPF412.01	100-10-20-20	400-400-350-50	J	FP421.3
300-200-10-100	175-150-150-150	I	FPF412.07	80-10-4-100	400-400-400-50	F	FP421.81
300-200-200-10	175-150-150-150	J	FP412.09	120-20-4-100	400-400-400-150	I	FP421.86
250-200-10-5	175-160-150-150	G	FPF412.08	100-80-10-30	400-400-400-400	N	FP422.05
300-200-20-20	175-175-150-150	G	FP412.092	100-100-20-2	400-400-400-400	J	FPF422.06
300-200-100-10	175-175-150-150	H	FP412.21	20-160-50-50	450-250-75-50	J	FP422.11
200-200-60-30	175-175-175-175	H	WP412.1	80-2-25-100	450-350-25-25	H	FP423.2
200-200-200-30	175-175-175-175	J	FP412.14	80-120-150-50	450-350-250-50	I	FP423.21
310-180-60-10	175-175-175-175	J	FP412.12	10-140-100-20	450-350-300-300	I	WP423.5
250-650-50-10	200-175-175-150	N	FP412.06	20-80-50-100	450-350-350-50	J	FP424.3
5-300-550-100	200-175-175-175	N	FP412.144	20-15-20-20	450-450-25-25	F	FP426
250-400-50-5	200-175-175-175	H	FP412.143	10-10-60-100	450-450-200-50	F	FP427.5
350-350-100-100	200-200-100-100	S	FP412.145	80-50-20-150	450-450-250-25	H	FP427.66
200-200-100-10	200-200-200-200	I	FP412.13	110-50-20-150	450-450-250-25	N	FPF427.68
240-240-160-5	200-200-200-200	I	FP412.13	80-50-20-50	450-450-250-50	I	FP427.67
250-200-10-20	200-200-200-200	H	FPF412.17	30-20-160-40	450-450-250-150	J	FPF427.69
450-160-60-5	200-200-200-200	I	FP412.19	20-30-10-160	450-450-250-250	J	FP427.695
80-400-400-500	250-150-150-35	I	FP412.79	80-20-2-25	450-450-350-25	H	FP427.74
280-200-300-40	250-250-175-175	I	FP412.791	20-30-4-200	450-450-350-150	I	FP427.8
250-200-10-10	250-250-250-250	H	FP412.9	80-30-40-40	450-450-350-150	I	FP427.75
250-200-40-10	250-250-250-250	H	FP412.91	80-80-120-70	450-450-350-200	N	FP427.90
125-5-120-100	300-200-175-75	H	FPF419.05	40-10-35-10	450-450-350-350	G	FP428
10-20-50-1000	300-300-50-35	F	FP417.4	40-40-30-30	450-450-350-350	J	FP428.4
250-50-400-2000	300-300-150-35	S	FP417.41	100-100-20-3	450-450-400-400	S	FP428.5
100-10-200-30	300-300-150-150	H	FP419.4	40-30-10-20	450-450-450-25	H	FP429
140-10-200-30	300-300-150-150	G	FP417.5	80-30-20-40	450-450-450-150	I	FP433.3
150-100-10-10	300-300-300-300	J	FP419.55	20-80-80-20	450-450-450-250	J	FP450.01
150-150-30-30	300-300-300-300	I	WP419.52	40-20-10-100	450-450-450-250	H	FP432.9
50-500-500-200	350-50-25-25	H	FP419.557	80-50-10-20	450-450-450-300	I	FP450.2
100-500-500-200	350-50-25-25	H	FPF419.599	40-20-20-20	450-450-450-350	H	FP433.4
100-400-200-500	350-175-175-40	N	FP419.10	10-10-10-10	450-450-450-450	F	FP434
40-100-200-300	350-175-175-175	H	FP414.10	20-10-10-10	450-450-450-450	F	FP434.5
100-150-5-100	350-200-150-50	G	FP419.565	20-20-20-20	450-450-450-450	G	FP444
180-100-150-100	350-200-200-200	N	FPF414.2	30-20-20-10	450-450-450-450	H	FP444.5
200-50-50-20	350-200-200-200	G	FPF414.11	30-30-20-20	450-450-450-450	H	FP444.8
150-200-20-50	350-200-200-200	H	FP414.1	40-20-20-20	450-450-450-450	H	FP444.95
120-100-100-100	350-300-150-75	J	FP417.26	40-40-20-20	450-450-450-450	J	FP447
40-100-2-50	350-300-175-50	G	FP418.1	40-40-30-30	450-450-450-450	J	FP447.5
100-80-250-100	350-300-175-150	H	FPF417.27	40-40-40-40	450-450-450-450	H	WP447.7
40-80-10-10	350-300-300-300	G	WP419.51	80-10-10-10	450-450-450-450	H	FP450
160-60-10-4	350-300-300-300	J	FP419.65	80-40-20-10	450-450-450-450	I	FP450.08
100-25-5-25	350-350-50-25	F	FP419.615	80-40-20-20	450-450-450-450	I	FP450.16
40-40-50-50	350-350-50-50	F	FP419.635	10-130-20-10	475-350-350-350	J	FP454.4
200-150-100-100	350-350-175-100	N	FP419.642	30-10-4-100	475-400-300-25	F	FP454.5
40-20-100-100	350-350-200-50	F	FP419.649	10-80-40-100	475-400-400-50	J	FP454.8
150-100-20-100	350-350-350-25	H	FP419.311	10-60-30-125	475-450-400-50	J	FP456.5
4-4-50-500	350-350-350-35	F	FP419.312	50-40-4-40	475-475-150-25	H	FP460.5
4-50-50-200	350-350-350-35	F	FP419.313	80-80-4-4	475-475-450-450	N	FP470
4-40-100-100	350-350-350-50	H	WP420.25	30-4-4-200	475-475-475-25	F	FP471.1
10-10-100-20	350-350-350-50	G	FP420.23	80-4-4-200	475-475-475-25	H	FP472
10-20-40-100	350-350-350-50	F	FPF420.17	20-20-10-10	475-475-475-475	F	FP474.5
10-20-140-100	350-350-350-50	H	FP420.28	20-20-20-20	475-475-475-475	F	FP475
10-30-100-40	350-350-350-50	G	FP419.89	40-20-10-10	475-475-475-475	G	FP476
10-100-150-60	350-350-350-50	H	FP420.281	80-30-4-4	475-475-475-475	H	FP472.5
10-100-150-100	350-350-350-50	I	FP419.895	10-10-10-10	500-500-500-500	F	FP494
20-40-50-100	350-350-350-50	F	FP420.18				
60-100-100-100	350-350-350-50	I	FP420.273				
90-30-5-100	350-350-350-75	H	FP420.29				
5-10-30-100	350-350-350-200	F	FP420.33				
10-160-200-80	350-350-350-200	N	FP420.341				
10-50-150-200	350-350-350-350	N	FP420.409				
40-20-20-10	350-350-350-350	F	FP420.35				
40-40-30-20	350-350-350-350	G	FP420.36				
40-40-40-40	350-350-350-350	H	FP420.36				
80-60-40-20	350-350-350-350	J	FP420.4				
100-100-50-50	350-350-350-350	N	FP420.37				
150-100-20-20	350-350-350-350	I	FP420.365				
150-100-50-10	350-350-350-350	N	FP420.406				
80-80-4-100	400-200-150-50	I	FP420.407				
80-80-100-100	400-350-25-25	I	FP420.43				

**Suffix "M" designates plastic sleeve.
 ‡Can ungrounded for photoflash.

FP - WP AND PFP - PWP Case Code Chart

Key	Dia.	Lgth.	Key	Dia.	Lgth.	Key	Dia.	Lgth.
B	1"	2"	G	1 1/2"	2 1/2"	L	1"	1 1/2"
C	1"	2 1/2"	H	1 3/8"	3"	M	1"	1 3/4"
D	1"	3"	I	1 3/8"	4"	N	1 3/8"	4 1/2"
E	1"	4"	J	1 3/8"	3 1/2"	R	1 3/8"	1 3/4"
F	1 3/8"	2"	K	1"	3 1/2"	S	1 3/8"	5"
						T	1 3/8"	1 1/2"

Consult your local Mallory distributor for price information.

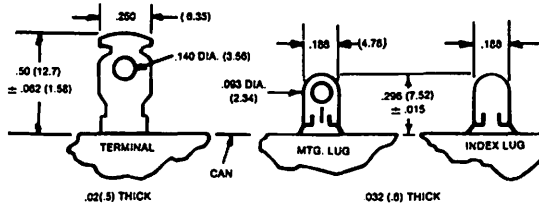
Specifications subject to change without notice.

FP/WP - PFP/PWP Case Codes (inches)

Case Code	O.E.M. Case Code	Dimensions D x L
B	N2A	1 x 2
C	N2J	1 x 2½
D	N3A	1 x 3
E	N4A	1 x 4
F	R2A	1⅜ x 2
G	R2J	1⅜ x 2½
H	R3A	1⅜ x 3
I	R4A	1⅜ x 4
J	R3J	1⅜ x 3½
K	N3J	1 x 3½
L	N1J	1 x 1½
M	N1N	1 x 1¾
N	R4J	1⅜ x 4
R	R1N	1⅜ x 1¾
S	R5A	1⅜ x 5

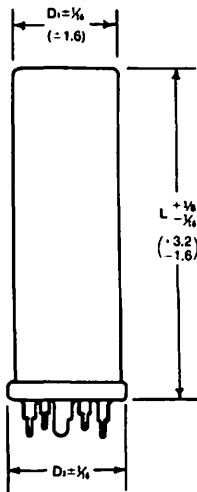
TERMINALS

1" & 1⅜" DIA.

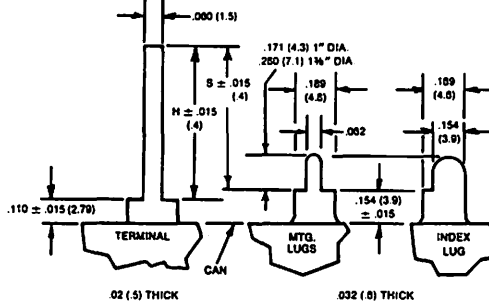


FP Chassis-Mounting Solder Terminals

1" and 1⅜" diameter FP and KFP lugs are twist-tab self-mounting



STANDARD TERMINAL CODE 1 - 1" DIA. CODE 3 - 1⅜" DIA.



PFP Printed CKT-Mounting Printed CKT Terminals

Terminal Code	1" & 1⅜" DIA.		
	Total Blade H	Insert Length S	Total Blade H
1	.148 (3.8)	.105 (2.7)	.148 (3.8)
2	.234 (5.9)	.191 (4.8)	.234 (5.9)
3	.310 (7.9)	.268 (6.8)	.310 (7.9)
4	.392 (10.0)		.392 (10.0)
5	.627 (15.9)		.627 (15.9)

TERMINAL IDENTIFICATION

	1" DIA.	1⅜" DIA.
SINGLE SECTION	Index Lug	Index Lug
DUAL SECTION	Index Lug	Index Lug
TRIPLE SECTION	Index Lug	Index Lug
QUADRUPLE SECTION		Index Lug

TERMINAL ASSIGNMENT

	1" DIA.			1⅜" DIA.			
NEGATIVE CASE	Single Section	Dual Sections	Triple Sections	Single Section	Dual Sections	Triple Sections	Quadruple Sections
	Blank			Blank			
			Blank				
							Blank
FLOATING CASE							
	(Neg.)	Blank (Neg.)		(Neg.)	(Neg.)	(Neg.)	
							Blank (Neg.)

HIGHEST-TO-LOWEST VOLTAGE TERMINAL SEQUENCE (If identical voltages use highest to lowest capacitance.)

Consult your local Mallory distributor for price information.

Type TCG Tubular Computer Grade Capacitors

MALLORY

+ 85°C



The TCG Computer Grade capacitor is a small tubular version of the Mallory type CG electrolytic capacitor. Tolerance: 3 through 75 volts -10% +75%; all others -10% +50%. Replaces 39D, WHB, 977, 066. Request bulletin 4-307 for complete technical data. For prices, reference price sheet No. 305.

TCG FEATURES

- Can Wall Safety Vent 1/2" dia. and above
- Temperature Range: -40°C to +85°C
- Widest Variety of Container Sizes
- PVC Insulating Sleeve (Standard)

- Mylar Sleeve (Optional)
- Long Life
- Low ESR
- New Can Lengths and Diameters
- All Welded Construction

Cap. μ F	*Case Code	Catalog No.
6 WVDC; 8 VDC Surge		
6,000	N1L	TCG602U006N1L
10,000	N2C	TCG103U006N2C
12,000	N2L	TCG123U006N2L
10 WVDC; 12 VDC Surge		
500	D1A	TCG501U010D1A
1,000	D1G	TCG102U010D1G
1,600	D2A	TCG162U010D2A
2,500	L1C	TCG252U010L1C
2,500	N1C	TCG252U010N1C
2,700	N1C	TCG272U010N1C
5,000	N1G	TCG502U010N1G
5,000	N1L	TCG502U010N1L
5,500	N1L	TCG552U010N1L
10,000	N2C	TCG103U010N2C
10,000	L3C	TCG103U010L3C

Cap. μ F	*Case Code	Catalog No.
15 WVDC; 20 VDC Surge		
70	B0L	TCG700U015B0L
180	C0P	TCG181U015C0P
600	C1L	TCG601U015C1L
1,200	D2A	TCG122U015D2A
2,500	G2L	TCG252U015G2L
2,900	G2L	TCG292U015G2L
4,000	N1L	TCG402U015N1L
4,100	N1L	TCG412U015N1L
6,300	L2L	TCG632U015L2L
8,000	N2L	TCG802U015N2L
8,200	N2L	TCG822U015N2L
10,000	N2L	TCG103U015N2L
10,000	N3C	TCG103U015N3C

Cap. μ F	*Case Code	Catalog No.
25 WVDC; 30 VDC Surge		
120	C0S	TCG121U025C0S
120	D0N	TCG121U025D0N
200	D1A	TCG201U025D1A
230	D1A	TCG231U025D1A
500	D1N	TCG501U025D1N
520	D1N	TCG521U025D1N
1,000	N1C	TCG102U025N1C
1,100	J1L	TCG112U025J1L
2,200	J2L	TCG222U025J2L
2,300	J2L	TCG232U025J2L
4,000	L3C	TCG402U025L3C
4,100	L3C	TCG412U025L3C

Cap. μ F	*Case Code	Catalog No.
30 WVDC; 40 VDC Surge		
25	B0L	TCG250U030B0L
65	C0P	TCG650U030C0P
95	C0S	TCG950U030C0S
150	D1A	TCG151U030D1A
250	D1G	TCG251U030D1G
280	D1G	TCG281U030D1G
500	G1L	TCG501U030G1L
500	J1C	TCG501U030J1C
1,100	G2L	TCG112U030G2L
1,100	L1G	TCG112U030L1G
2,100	L2L	TCG212U030L2L
2,400	L2L	TCG242U030L2L
3,000	L3C	TCG302U030L3C
3,000	L2C	TCG302U030L2C

Cap. μ F	*Case Code	Catalog No.
50 WVDC; 65 VDC Surge		
18	B0L	TCG180U050B0L
50	C0S	TCG500U050C0S
100	E1G	TCG101U050E1G
150	D1G	TCG151U050D1G
250	G1G	TCG251U050G1G
250	G1L	TCG251U050G1L
290	G1G	TCG291U050G1G
500	G2L	TCG501U050G2L
500	N1C	TCG501U050N1C
600	L1G	TCG601U050L1G
600	G2L	TCG601U050G2L
1,100	N2C	TCG112U050N2C
1,200	N2C	TCG122U050N2C
1,200	L2C	TCG122U050L2C
2,300	N2L	TCG232U050N2L
2,300	N3C	TCG232U050N3C
2,500	N3C	TCG252U050N3C
2,500	N3L	TCG252U050N3L

Cap. μ F	*Case Code	Catalog No.
75 WVDC; 95 VDC Surge		
10	B0N	TCG100U075B0N
25	C0S	TCG250U075C0S
40	C1C	TCG400U075C1C

Cap. μ F	*Case Code	Catalog No.
100 WVDC; 125 VDC Surge		
15	C0P	TCG150T100C0P

Cap. μ F	*Case Code	Catalog No.
150 WVDC; 175 VDC Surge		
5	B0N	TCG5R0T150B0N
10	C0P	TCG100T150C0P
25	E1G	TCG250T150E1G
50	D1N	TCG500T150D1N
100	J1L	TCG101T150J1L
110	J1L	TCG111T150J1L
250	L2C	TCG251T150L2C
530	N3C	TCG531T150N3C
560	N3L	TCG561T150N3L

Cap. μ F	*Case Code	Catalog No.
250 WVDC; 300 VDC Surge		
20	E2C	TCG200T250E2C
50	L1G	TCG500T250L1G
100	L2C	TCG101T250L2C
200	N2L	TCG201T250N2L
200	N3C	TCG201T250N3C

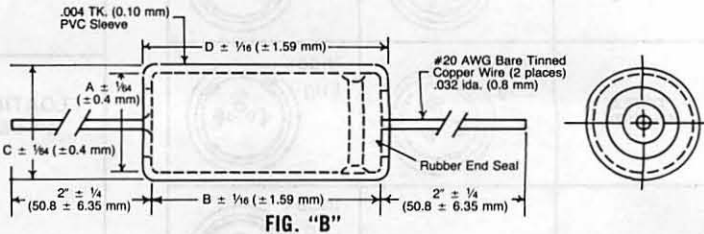
Cap. μ F	*Case Code	Catalog No.
350 WVDC; 400 VDC Surge		
20	G1L	TCG200T350G1L
20	J1C	TCG200T350J1C
30	G2C	TCG300T350G2C
30	L1C	TCG300T350L1C
40	G2L	TCG400T350G2L
40	N1C	TCG400T350N1C
50	N1L	TCG500T350N1L
50	N1G	TCG500T350N1G
60	N1G	TCG600T350N1L
100	N2C	TCG101T350N2C
160	N2L	TCG161T350N2L
180	N3C	TCG181T350N3C

Cap. μ F	*Case Code	Catalog No.
450 WVDC; 525 VDC Surge		
5	E1L	TCG5R0T450E1L
5	E1G	TCG5R0T450E1G
10	G1L	TCG100T450G1L
10	J1C	TCG100T450J1C
12	G1L	TCG120T450G1L
12	J1C	TCG120T450J1C
20	G2L	TCG200T450G2L
20	N1C	TCG200T450N1C
50	N2C	TCG500T450N2C
50	N1L	TCG500T450N1L
75	N2C	TCG750T450N2C
85	N2L	TCG850T450N2L

*Case code identification shown on page 22 and 23.

TCG ONLY (SEE FIG. "B") 5/16", 3/8" and 1/2" DIAMETER CASES

Case Size	Case Code	Uninsulated		Insulated	
		Diameter (in.) (mm)	Length (in.) (mm)	Diameter (in.) (mm)	Length (in.) (mm)
5/16 x 5/8	B0L	.312 (7.93)	.625 (15.87)	.328 (8.33)	.640 (16.27)
5/16 x 3/4	B0N	.312 (7.93)	.750 (19.05)	.328 (8.33)	.765 (19.44)
3/8 x 13/16	C0P	.375 (9.52)	.812 (20.63)	.390 (9.92)	.828 (21.03)
3/8 x 15/16	C0S	.375 (9.52)	.937 (23.81)	.390 (9.92)	.953 (24.20)
3/8 x 1 1/8	C1C	.375 (9.52)	1.125 (28.57)	.390 (9.92)	1.140 (28.97)
3/8 x 1 1/8	C1L	.375 (9.52)	1.625 (41.27)	.390 (9.92)	1.640 (41.67)
1/2 x 3/4	D0N	.437 (11.11)	.750 (19.05)	.453 (11.51)	.765 (19.44)
1/2 x 1	D1A	.437 (11.11)	1.000 (25.40)	.453 (11.51)	1.015 (25.80)
1/2 x 1 1/8	D1C	.437 (11.11)	1.125 (28.57)	.453 (11.51)	1.140 (28.97)
1/2 x 1 3/8	D1G	.437 (11.11)	1.375 (34.92)	.453 (11.51)	1.390 (35.32)
1/2 x 1 3/4	D1N	.437 (11.11)	1.750 (44.45)	.453 (11.51)	1.765 (44.84)
1/2 x 2	D2A	.437 (11.11)	2.000 (50.80)	.453 (11.51)	2.015 (51.20)
1/2 x 2 1/4	D2E	.437 (11.11)	2.250 (57.15)	.453 (11.51)	2.265 (57.55)

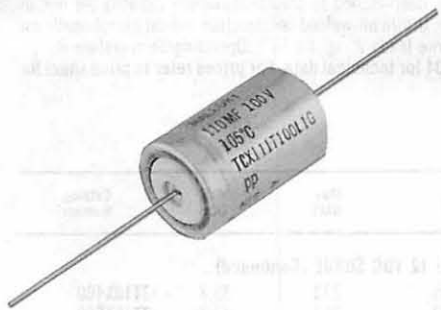


Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

Tubular Computer Grade Capacitors Type TCX

High Performance + 105°C



The type TCX axial leaded aluminum capacitors demonstrate good, reliable performance over the operating temperature range of -55°C to +105°C. In addition to its wide temperature range, this capacitor type also presents the advantages of moderately high CV product, excellent DC leakage current and dissipation factor performance, good stability versus temperature and a high ripple current capability. Tolerance: -10%, +75%, 3 thru 75 WVDC; -10%, +50%, 76 thru 150 WVDC. Supplied with Mylar® insulated sleeve. Replaces: 057 and UHH. Request bulletin 4-311 for complete technical data. For prices, reference price sheet no. 306.

Cap. (μF)	*Case Code	Catalog No.	Cap. (μF)	*Case Code	Catalog No.
15 WVDC; 20 VDC Surge (Continued)			50 WVDC; 65 VDC Surge (Continued)		
6,200	L2L	TCX622U015L2L	1,400	L2L	TCX142U050L2L
8,200	N2L	TCX822U015N2L	1,900	N2L	TCX192U050N2L
12,000	N3L	TCX122U015N3L	2,800	N3L	TCX282U050N3L
25 WVDC; 30 VDC Surge			75 WVDC; 95 VDC Surge		
560	E2C	TCX561U025E2C	65	G1C	TCX650U075G1C
950	J1G	TCX951U025J1G	100	J1C	TCX101U075J1C
1,200	N1C	TCX122U025N1C	140	J1G	TCX141U075J1G
1,800	L1L	TCX182U025L1L	210	L1G	TCX211U075L1G
2,400	N1L	TCX242U025N1L	280	L1L	TCX281U075L1L
3,700	L2L	TCX372U025L2L	370	J2L	TCX371U075J2L
7,200	N3L	TCX722U025N3L	560	L2L	TCX561U075L2L
30 WVDC; 40 VDC Surge			100 WVDC; 125 VDC Surge		
310	G1C	TCX311U030G1C	35	G1C	TCX350T100G1C
470	J1C	TCX471U030J1C	55	G1G	TCX550T100G1G
880	N1C	TCX881U030N1C	75	J1G	TCX750T100J1G
1,400	J2C	TCX142U030J2C	110	L1G	TCX111T100L1G
2,700	L2L	TCX272U030L2L	150	L1L	TCX151T100L1L
3,000	L3C	TCX302U030L3C	200	N1L	TCX201T100N1L
4,400	N3C	TCX442U030N3C	230	N1L	TCX231T100N1L
40 WVDC; 50 VDC Surge			150 WVDC; 175 VDC Surge		
360	J1C	TCX361U040J1C	12	E1C	TCX120T150E1C
700	N1C	TCX701U040N1C	27	G1C	TCX270T150G1C
1,000	L1L	TCX102U040L1L	60	L1C	TCX600T150L1C
1,300	J2L	TCX132U040J2L	85	J1L	TCX850T150J1L
2,100	L2L	TCX212U040L2L	120	J2C	TCX121T150J2C
4,200	N3L	TCX422U040N3L	150	J2L	TCX151T150J2L
50 WVDC; 65 VDC Surge			100 WVDC; 125 VDC Surge (Continued)		
110	E1G	TCX111U050E1G	35	G1C	TCX350T100G1C
250	G1G	TCX251U050G1G	55	G1G	TCX550T100G1G
370	L1C	TCX371U050L1C	75	J1G	TCX750T100J1G
500	G2C	TCX501U050G2C	110	L1G	TCX111T100L1G
710	N1G	TCX711U050N1G	150	L1L	TCX151T100L1L
950	N1L	TCX951U050N1L	200	N1L	TCX201T100N1L
			230	N1L	TCX231T100N1L
			310	L2L	TCX311T100L2L
			520	N3C	TCX521T100N3C
			620	N3L	TCX621T100N3L

*Case code identification shown below.

SIZE CHART — TCG AND TCX CAPACITORS (SEE FIG. "A")

1/2", 5/8", 3/4", 7/8" and 1" DIAMETER CASES

Case Size	Case Code	Uninsulated				Insulated				Case Size	Case Code	Uninsulated				Insulated			
		A (in.)	B (mm)	C (in.)	D (mm)	A (in.)	B (mm)	C (in.)	D (mm)			A (in.)	B (mm)	C (in.)	D (mm)	A (in.)	B (mm)	C (in.)	D (mm)
1/2 x 1 1/8	E1C	.500	(12.70)	1.125	(28.57)	.515	(13.10)	1.140	(28.97)	7/8 x 1 1/8	L1C	.875	(22.22)	1.125	(28.57)	.890	(22.62)	1.140	(28.97)
1/2 x 1 3/8	E1G	.500	(12.70)	1.375	(34.92)	.515	(13.10)	1.390	(35.32)	7/8 x 1 3/8	L1G	.875	(22.22)	1.375	(34.92)	.890	(22.62)	1.390	(35.32)
1/2 x 1 1/2	E1L	.500	(12.70)	1.625	(41.27)	.515	(13.10)	1.640	(41.67)	7/8 x 1 1/2	L1L	.875	(22.22)	1.625	(41.27)	.890	(22.62)	1.640	(41.67)
1/2 x 2 1/8	E2C	.500	(12.70)	2.125	(53.97)	.515	(13.10)	2.140	(54.37)	7/8 x 2 1/8	L2C	.875	(22.22)	2.125	(53.97)	.890	(22.62)	2.140	(54.37)
5/8 x 1 1/8	G1C	.625	(15.87)	1.125	(28.57)	.640	(16.27)	1.140	(28.97)	7/8 x 2 1/2	L2L	.875	(22.22)	2.625	(66.67)	.890	(22.62)	2.640	(67.07)
5/8 x 1 3/8	G1G	.625	(15.87)	1.375	(34.92)	.640	(16.27)	1.390	(35.32)	7/8 x 3 1/8	L3C	.875	(22.22)	3.125	(79.37)	.890	(22.62)	3.140	(79.77)
5/8 x 1 1/2	G1L	.625	(15.87)	1.625	(41.27)	.640	(16.27)	1.640	(41.67)	1 x 1 1/8	N1C	1.000	(25.40)	1.125	(28.57)	1.015	(25.80)	1.140	(28.97)
5/8 x 2 1/8	G2C	.625	(15.87)	2.125	(53.97)	.640	(16.27)	2.140	(54.37)	1 x 1 3/8	N1G	1.000	(25.40)	1.375	(34.92)	1.015	(25.80)	1.390	(35.32)
5/8 x 2 1/2	G2L	.625	(15.87)	2.625	(66.67)	.640	(16.27)	2.640	(67.07)	1 x 1 1/2	N1L	1.000	(25.40)	1.625	(41.27)	1.015	(25.80)	1.640	(41.67)
3/4 x 1 1/8	J1C	.750	(19.05)	1.125	(28.57)	.765	(19.44)	1.140	(28.97)	1 x 2 1/8	N2C	1.000	(25.40)	2.125	(53.97)	1.015	(25.80)	2.140	(54.37)
3/4 x 1 3/8	J1G	.750	(19.05)	1.375	(34.92)	.765	(19.44)	1.390	(35.32)	1 x 2 1/2	N2L	1.000	(25.40)	2.625	(66.67)	1.015	(25.80)	2.640	(67.07)
3/4 x 1 1/2	J1L	.750	(19.05)	1.625	(41.27)	.765	(19.44)	1.640	(41.67)	1 x 3 1/8	N3C	1.000	(25.40)	3.125	(79.37)	1.015	(25.80)	3.140	(79.77)
3/4 x 2 1/8	J2C	.750	(19.05)	2.125	(53.97)	.765	(19.44)	2.140	(54.37)	1 x 3 1/2	N3L	1.000	(25.40)	3.625	(92.07)	1.015	(25.80)	3.640	(92.47)
3/4 x 2 1/2	J2L	.750	(19.05)	2.625	(66.67)	.765	(19.44)	2.640	(67.07)										

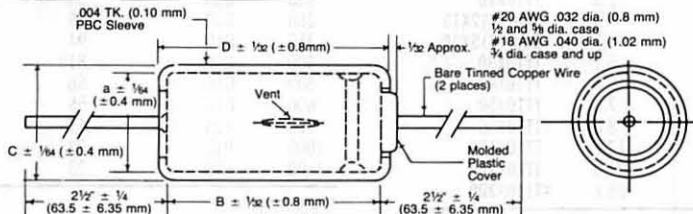


FIG. "A"

Consult your local Mallory distributor for price information.

Type TT Tubular Electrolytic Capacitors

MALORY



Mallory TT capacitors are made from very high purity aluminum foil, deep-etched to provide maximum capacity per unit of volume. Etched cathode construction assures long hum-free operation. Utilize all-welded construction; exhibit exceptionally low DCL and ESR. Supplied in aluminum case with insulating sleeve; wire leads 2" lg. ($\pm 1/4"$). Operating Temperature Range: -40°C to $+85^{\circ}\text{C}$. Tolerance: -10% , $+75\%$. Request bulletin 4-104 for technical data. For prices refer to price sheet No. 310. Replaces EE, TE, WH110, 5000 and 5010.

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
3 WVDC; 4 VDC SURGE					
1					See TT6X1
5					See TT6X5
8					See TT6X8
20					See TT15X20
25	AOL	8.94	51	1.3	TT3X25
40					See TT10X40
50					See TT6X50
75					See TT6X75
100	BOM	3.35	95	3.8	TT3X100
150	BOM	9.8	78	5.1	TT3X150
200					See TT6X200
250	CON	2.9	115	7.5	TT3X250
300	CON	2.9	126	8.7	TT3X300
400	C1C	1.25	214	10.7	TT3X400
500	C1C	1.00	239	12.7	TT3X500
590	C1G	1.04	258	14.4	†TT3X590
1000	D1C	.75	301	21.3	TT3X1000
1500	D1E	.50	416	28.9	TT3X1500
2500	G1C	.30	580	42.4	†TT3X2500
3600	G1G	.21	761	55.8	†TT3X3600

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
6 WVDC; 8 VDC SURGE					
1	AOL	133.0	13	1.0	TT6X1
2	AOL	66.5	19	1.0	TT6X2
3	AOL	44.33	23	1.0	TT6X3
4					See TT15X4
5	AOL	26.60	29	1.0	TT6X5
6					See TT50X6
8					See TT25X8
10					See TT10X10
15					See TT12X15
20					See TT15X20
25					See TT15X20
30					See TT10X30
35	AOL	5.97	62	3.5	TT6X35
40					See TT10X40
50	AOL	8.88	51	4.5	TT6X50
60					See TT10X60
75	AOL	31.0	56	6.1	†TT6X75
80	AOL	7.16	57	6.4	†TT6X80
100	BOM	5.48	74	7.6	TT6X100
150	BOM	3.65	90	10.3	†TT6X150
200	CON	2.74	120	12.8	TT6X200
250	CON	2.19	134	15.1	TT6X250
300	CON	1.83	147	17.3	†TT6X300
400	C1A	1.37	194	21.5	TT6X400
560	C1G	.98	266	27.6	TT6X560
1000	D1C	.55	351	42.7	†TT6X1000
1500	D1E	.37	486	57.9	TT6X1500
2000	G1A	.27	650	71.8	†TT6X2000
3000	G1G	.18	811	97.3	TT6X3000

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
10 WVDC; 12 VDC SURGE					
2	AOL	66.5	10	1.0	TT10X2
6					See TT50X6
10	AOL	13.30	42	2.3	TT10X10
15					See TT12X15
25					See TT15X20
30	AOL	8.28	53	5.1	TT10X30
40	AOL	9.14	50	6.4	TT10X40
50	AOL	8.8	51	7.5	TT10X50
60	AOL	7.40	56	8.6	†TT10X60
100	BOM	4.44	82	12.7	TT10X100
200	CON	2.22	134	21.3	TT10X200
300	COR	1.48	175	28.8	†TT10X300

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
10 WVDC; 12 VDC SURGE (Continued)					
400	C1A	.95	233	35.8	†TT10X400
500	C1C	.89	254	42.3	TT10X500
600	C1G	.63	331	48.5	†TT10X600
800	D1G	.56	383	60.2	TT10X800
1000	E1E	.38	477	71.0	TT10X1000
1500	E1E	.32	522	96.4	†TT10X1500
2000					See TT12X2000
2400	G1E	.19	767	137.2	†TT10X2400

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
12 WVDC; 15 VDC SURGE					
1					See TT25X1
2					See TT15X2
3					See TT15X3
4					See TT15X4
5	AOL	26.6	29	1.6	TT12X5
6					See TT50X6
8					See TT25X8
10					See TT15X10
15	AOL	9.77	48	3.7	TT12X15
20					See TT15X20
25	AOL	8.94	51	5.4	TT12X25
35	AOL	9.36	50	6.9	TT12X35
50	AOL	6.55	59	9.0	TT12X50
75	AON	5.04	73	12.2	TT12X75
100	BOM	3.78	89	15.2	TT12X100
150	CON	2.18	135	20.6	TT12X150
200	CON	1.89	145	25.5	TT12X200
250	CON	.95	204	30.2	†TT12X250
450	C1C	.74	278	46.9	†TT12X450
500	C1C	.43	367	50.8	†TT12X500
600	D1C	.55	352	58.2	TT12X600
800					See TT15X800
1000	D1E	.33	513	85.4	TT12X1000
1500					See TT15X1500
2000	G1G	.16	855	143.6	†TT12X2000

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
15 WVDC; 20 VDC SURGE					
1					See TT25X1
2	AOL	66.5	19	1.0	TT15X2
3	AOL	44.33	23	1.4	TT15X3
4	AOL	33.25	26	1.7	TT15X4
5	AOL	26.6	29	2.0	TT15X5
6					See TT50X6
8					See TT25X8
10	AOL	13.3	42	3.4	TT15X10
15	AOL	8.87	51	4.6	TT15X15
20	AOL	8.69	51	5.7	TT15X20
25	AOL	69.6	57	6.7	TT15X25
30					See TT25X30
35	AOL	9.36	50	8.6	†TT15X35
40	AOL	8.19	53	9.5	†TT15X40
50	AOL	6.55	59	11.3	†TT15X50
75	AON	4.37	79	15.3	†TT15X75
100	BOM	3.35	95	19.0	†TT15X100
150	CON	2.18	135	25.7	†TT15X150
200	CON	1.64	156	31.9	†TT15X200
260	COR	1.26	190	38.9	†TT15X260
350	C1G	.94	271	48.6	†TT15X350
400	D1A	.819	272	53.7	†TT15X400
500	C1G	.66	324	63.4	†TT15X500
600	D1C	.55	352	72.7	†TT15X600
800	D1G	.41	446	90.3	†TT15X800
1000	D1E	.33	513	106.7	†TT15X1000
1500	G1C	.23	660	144.6	†TT15X1500

†Parent value.

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
25 WVDC; 35 VDC SURGE					
1	AOL	133.0	13	1.0	TT25X1
2	AOL	66.5	19	1.7	TT25X2
3	AOL	44.33	23	2.3	TT25X3
4					See TT50X4
5	AOL	26.6	29	3.3	TT25X5
6	AOL	27.0	15	3.8	TT25X6
8	AOL	16.63	37	4.8	TT25X8
10	AOL	13.30	42	5.6	TT25X10
15	AOL	9.77	48	7.6	†TT25X15
20	AOL	14.14	40	9.5	†TT25X20
25	AOL	6.96	57	11.2	†TT25X25
30	AON	5.8	68	12.8	†TT25X30
35	AON	5.23	72	14.4	†TT25X35
50	BOM	3.53	92	18.8	†TT25X50
75	CON	1.95	142	25.5	†TT25X75
100	CON	1.74	151	31.6	†TT25X100
150	C1A	1.16	211	42.9	†TT25X150
200	C1C	.87	257	53.2	†TT25X200
300	E1C	.58	342	72.1	†TT25X300
400	D1G	.43	433	89.4	†TT25X400
500	E1G	.35	520	105.7	†TT25X500
600	E1G	.291	568	121.2	†TT25X600
800	E1N	.22	735	150.4	†TT25X800

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
50 WVDC; 65 VDC SURGE					
1	AOL	133.0	13	2.0	TT50X1
2	AOL	66.5	19	3.4	TT50X2
3	AOL	44.33	22	4.6	TT50X3
4	AOL	33.25	26	5.7	†TT50X4
5	AOL	26.6	29	6.7	†TT50X5
6	AOL	22.17	32	7.7	†TT50X6
8	AOL	23.16	31	9.5	†TT50X8
10	AOL	13.30	42	11.3	†TT50X10
15	AON	12.35	47	15.2	†TT50X15
20	BOM	8.80	56	18.9	†TT50X20
25	BOM	8.03	61	22.4	†TT50X25
35	CON	5.29	87	28.8	†TT50X35
50	CON	2.66	122	37.6	†TT50X50
75	C1A	2.16	154	51.0	†TT50X75
100	C1C	1.33	207	63.3	†TT50X100
150	D1C	1.29	229	85.7	†TT50X150
200	E1C	.93	290	106.4	†TT50X200
250	E1G	.74	356	125.7	†TT50X250
300	D2A	.62	432	144.2	†TT50X300
350	G1C	.35	426	161.8	†TT50X350
400	G1E	.46	487	178.9	†TT50X400
450	G1G	.411	540	195.4	†TT50X450

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
100 WVDC; 120 VDC SURGE					
1					See TT150X1
2	AOL	66.5	19	6.7	†TT100X2
3	AOL	44.33	23	9.1	†TT100X3
4	COL	33.25	32	11.3	†TT100X4

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
100 WVDC; 120 VDC SURGE (Continued)					
5	CON	26.6	39	13.4	†TT100X5
6					See TT150X6
10	CON	13.30	55	22.5	†TT100X10
15	COR	8.87	72	30.5	†TT100X15
20	C1A	6.65	88	37.8	†TT100X20
25					See TT150X25
30	C1G	4.43	125	51.3	†TT100X30
40	D1G	3.33	156	63.6	†TT100X40
45	D1J	2.96	173	69.5	†TT100X45
50	D1N	2.66	196	75.2	†TT100X50
65	D2A	.5	237	91.6	†TT100X65

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
150 WVDC; 175 VDC SURGE					
1	AOL	133.0	13	6.0	†TT150X1
2	AON	66.50	29	10.1	†TT150X2
3	BOL	44.33	26	13.7	†TT150X3
4	COL	33.3	32	17.0	†TT150X4
5	CON	26.60	39	20.1	†TT150X5
6	CON	22.17	42	23.0	†TT150X6
8	COR	16.6	52	28.5	†TT150X8
10	COR	13.30	58	33.7	†TT150X10
12					See TT150X15
15	C1C	8.87	80	45.7	†TT150X15
20	C1G	6.65	102	56.7	†TT150X20
25	D1G	5.32	124	67.1	†TT150X25
30	D1G	4.43	135	76.9	†TT150X30
35	D1J	3.80	152	86.3	†TT150X35
40	D1N	3.33	175	95.4	†TT150X40

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
200 WVDC; 250 VDC SURGE					
1	AOM	200.0	20	7.0	†TT200X1
2	BOM	100.0	32	10.0	†TT200X2
3	BOP	66.7	31	12.0	†TT200X3
4	COP	50.0	53	14.0	†TT200X4
6	COS	33.3	69	16.0	†TT200X6
8	C1E	25.0	96	19.0	†TT200X8
10	C1E	20.0	100	21.0	†TT200X10
15	D1E	13.3	135	30.0	†TT200X15
20	D1J	10.0	168	30.0	†TT200X20
25	F1J	8.0	203	48.0	†TT200X25
30	FIN	6.7	237	52.0	†TT200X30

Cap. (MFD)	Case Code	Max. ESR (Ω)	Max. RMS	Max. DCL	Catalog Number
250 WVDC; 300 VDC SURGE					
2	COM	100.0	35	12.0	†TT250X2
3	COP	66.7	46	15.0	†TT250X3
4	COS	50.0	56	16.7	†TT250X4
6	C1E	33.3	75	20.0	†TT250X6
8	C1J	25.0	98	24.0	†TT250X8
10	D1E	20.0	110	26.0	†TT250X10
12	D1J	16.7	130	34.0	†TT250X12
20	FIN	10.0	194	52.0	†TT250X20

†Parent value.

TT CASE CODE CHART

Case Code	Dimensions* Dia. × Lgth.	Case Code	Dimensions* Dia. × Lgth.	Case Code	Dimensions* Dia. × Lgth.	Case Code	Dimensions* Dia. × Lgth.
AOL	.265" × .625"	COL	.375" × .625"	C1C	.375" × 1.125"	D1G	.437" × 1.375"
AOM	.265" × .687"	COM	.375" × .687"	C1E	.375" × 1.265"	D1J	.437" × 1.500"
AON	.265" × .750"	CON	.375" × .750"	C1G	.375" × 1.375"	D1N	.437" × 1.750"
BOL	.312" × .625"	COP	.375" × .812"	C1J	.375" × 1.500"	D2A	.437" × 2.000"
BOM	.312" × .687"	COR	.375" × .875"	D1A	.437" × 1.000"	F1J	.484" × 1.500"
BON	.312" × .750"	COS	.375" × .937"	D1C	.437" × 1.125"	FIN	.484" × 1.750"
BOP	.312" × .812"	C1A	.375" × 1.000"	D1E	.437" × 1.265"	E1E	.500" × 1.250"
G1C	.625" × 1.125"	E1G	.500" × 1.375"	E1N	.500" × 1.750"	G1E	.625" × 1.250"
						G1G	.625" × 1.375"

*Size shown is for bare case. Add .015" to diameter and .062" to length for insulating sleeve.

Consult your local Mallory distributor for price information.

Type TC and TCN Tubular Electrolytic Capacitors



TC SINGLE SECTION (POLAR) and TCN SINGLE SECTION (NON-POLAR)

Mallory type TC and type TCN capacitors are single section metal tubulars with clear plastic insulating sleeves except those with the symbol (†) which have cardboard sleeving. The sizes listed below for TC and TCN capacitors without symbol (†) are bare unsleeved cans and you must add .015" to the diameter and .062" to the length to allow for plastic sleeving. Dimensions for capacitors with symbol (†) include the cardboard sleeve. Etched cathode construction is used in the manufacture of TC and TCN capacitors for maximum reliability. Type TC's and TCN's have 2" tinned leads except those shown with (■) which have 3" leads; TCD's and TCT's have 4" insulated leads. **Temp. Range:** -20° to +85°C. **Tolerance:** - 10% to +100% up to 350 WVDC; -10%, +50% for 351 WVDC and up. For prices, refer to price sheet 316. Replaces TVA; WBR; BR.

TC SINGLE SECTION (POLAR)

Capacity (MFD)	Size D x L	Max. ESR (ohms) 120Hz +25°C	Max. Ripple RMS (mA)@ 120Hz +85°C	Max. DCL (μA) +25°C	Catalog Number
3 WVDC; 4 VDC SURGE					
200	3/8 x 3/4	3.06	114	6.4	TC304
500	3/8 x 1 1/8	1.22	216	12.7	TC305
1,000	7/16 x 1 1/8	0.61	339	21.34	TC310
6 WVDC; 8 VDC SURGE					
250	3/8 x 3/4	2.19	134	15.1	TC602
500	3/8 x 1 1/8	0.99	228	25.4	TC605
1,000	7/16 x 1 1/8	0.54	359	42.68	TC610
2,000	5/8 x 1	0.28	572	71.8	TC615
12 WVDC; 15 VDC SURGE					
500	3/8 x 1 1/8	0.76	275	50.8	TC1205
1,000	1/2 x 1 1/4	0.33	513	85.4	TC1210
1,500	5/8 x 1 1/2	0.25	631	115.69	TC1215
2,000	3/4 x 1 3/8	0.18	796	143.55	TC1220
15 WVDC; 20 VDC SURGE					
200	3/8 x 3/4	1.638	156	31.91	TC1502
250	3/8 x 7/8	1.31	186	37.7	TC15025
500	3/8 x 1 1/8	0.66	324	63.4	TC1505
1,000	1/2 x 1 1/4	0.33	513	106.7	TC1501
2,000	5/8 x 1 3/8	0.164	855	179.4	TC1520
3,000	7/8 x 1 3/8	0.25	902	1300	TC1530
4,000	7/8 x 1 3/8	0.19	1110	1500	TC1540
5,000	7/8 x 2 3/8	0.11	1698	1600	TC1550
25 WVDC; 30 VDC SURGE					
10	1/4 x 5/8	13.30	42	5.6	TC22
25	1/4 x 3/4	6.96	57	11.2	TC26
50	3/16 x 1 1/16	3.53	92	18.8	TC29
100	3/8 x 3/4	1.74	151	31.6	TC2501
150	3/8 x 1	1.16	211	42.9	TC25015
250	7/16 x 1	0.70	294	62.9	TC25025
500	1/2 x 1 3/8	0.35	520	105.7	TC2505
1,000	5/8 x 1 3/8	0.17	832	177.8	TC2510
1,500	3/4 x 2 1/8	0.28	879	1200	TC2515
2,000	7/8 x 1 3/8	0.21	1045	1340	TC2520
3,000	7/8 x 2 3/8	0.14	1491	1640	TC2530
4,000	1 x 2 3/8	0.11	1851	1900	TC2540
5,000	1 x 2 3/8	0.08	2069	2120	TC2550
50 WVDC; 65 VDC SURGE					
1	1/4 x 3/8	133.0	13	2.0	TC31
2	1/4 x 5/8	66.0	18	3.4	TC302
5	1/4 x 3/4	26.6	29	6.7	TC30
10	1/4 x 5/8	18.53	35	11.3	TC32
25	3/16 x 1 1/16	8.03	61	22.36	TC36
50	3/8 x 3/4	3.91	101	37.6	TC39
100	3/8 x 1 1/8	1.85	176	63.3	TC3501
150	7/16 x 1 1/8	1.29	229	85.7	TC50015
250	1/2 x 1 3/8	0.74	356	125.7	TC50025
500	5/8 x 1 3/8	0.37	592	211.5	TC50050
1,000	7/8 x 2 3/8	0.22	1198	1340	TC50100
1,500	1 x 2 3/8	0.14	1580	1640	TC50150
2,000	1 x 2 3/8	0.10	1825	1900	TC50200
3,000	1 x 3 3/8	0.07	2595	2320	TC50300
5,000	1 3/8 x 3 3/8	0.03	4580	4000	TC50500

■ Indicates solid leads 3 inches long.
† Indicates cardboard sleeving (size includes sleeve)

Capacity (MFD)	Size D x L	Max. ESR (ohms) 120Hz +25°C	Max. Ripple RMS (mA)@ 120Hz +85°C	Max. DCL (μA) +25°C	Catalog Number
75 WVDC; 95 VDC SURGE					
20	3/8 x 3/4	6.77	77	28.4	TC75200
25	3/8 x 7/8	5.32	92	33.5	TC75250
50	7/16 x 1 3/8	2.66	175	56.4	TC75500
100	5/8 x 1 3/8	1.42	291	500	TC75101
250	3/4 x 1 3/8	0.63	519	800	TC75251
500	7/8 x 2 1/8	0.28	952	1200	TC75501
1,000	1 x 1 3/8	0.15	1221	1643	TC75102
2,000	1 x 2 3/8	0.07	2139	2323	TC75202
100 WVDC; 125 VDC SURGE					
1	1/4 x 3/8	133.0	13	4.0	TC10010
10	3/8 x 3/4	13.30	55	22.5	TC10100
20	3/8 x 1	6.65	88	37.8	TC10200
25	3/8 x 1 1/8	5.32	104	44.7	TC10250
50	7/16 x 1 3/4	2.66	175	75.2	TC10500
100	3/4 x 1 3/8	1.33	332	600	TC10101
150	3/4 x 1 3/8	0.89	438	700	TC10151
250	7/8 x 1 3/8	0.53	656	950	TC10251
500	1 x 2 3/8	0.27	1163	1340	TC10501
1,000	1 x 3 1/8	0.13	1946	1900	TC10102
1,500	1 x 3 3/8	0.08	2352	2323	TC10152
2,000	1 3/8 x 2 1 1/16	0.06	2796	2683	TC10202
150 WVDC; 175 VDC SURGE					
5	3/8 x 3/4	26.6	39	20.1	TC40
8	3/8 x 7/8	16.63	52	28.5	TC41
10	3/8 x 7/8	13.30	58	33.7	TC42
12	3/8 x 1	11.08	68	38.7	TC43
16	3/8 x 1 1/8	8.31	81	48.0	TC44
20	3/8 x 1 3/8	6.65	102	56.7	TC45
30	7/16 x 1 3/8	4.43	135	76.9	TC47
40	7/16 x 1 3/4	3.33	175	95.4	TC48
50	7/16 x 2	2.66	208	112.8	TC49
80	3/4 x 1 3/8	1.66	320	660	TC492
100	3/4 x 1 3/8	1.33	358	730	TC493
150	7/8 x 1 3/8	0.89	477	900	TC495
200	7/8 x 1 3/8	0.67	621	1040	TC496
300	1 x 2 3/8	0.44	819	1300	TC499
500	1 x 2 3/8	0.26	1165	1643	TC4990
1,000	1 3/8 x 2 1 1/16	0.13	1984	2323	TC4992
250 WVDC; 300 VDC SURGE					
1	1/2 x 1 1/8	133.0	24	100	TC56
5	1/2 x 1 1/8	26.6	54	200	TC50X
8	5/8 x 1 1/8	16.6	78	300	TC51
10	5/8 x 1 1/8	13.30	87	300	TC52
12	5/8 x 1 1/8	11.08	95	330	TC53
16	5/8 x 1 3/8	8.31	120	380	TC54
20	3/4 x 1 1/8	6.65	136	420	TC55
30	3/4 x 1 3/8	4.43	182	520	TC57
40	3/4 x 1 3/8	3.33	226	600	TC58
50	3/4 x 1 3/8	2.66	253	730	TC59
100	7/8 x 2 3/8	1.33	484	950	TC1265
160	1 x 2 3/8	0.83	658	1200	TC1266
225	1 x 3 3/8	.59	845	1420	TC1267
500	1 3/8 x 2 1 1/16	0.26	1403	2121	TC1269
300 WVDC; 350 VDC SURGE					
150	1 x 3 3/8	0.89	690	1300	TC593
200	1 x 3 3/8	0.67	797	1500	TC594

● NEW PRODUCT

Consult your local Mallory distributor for price information.

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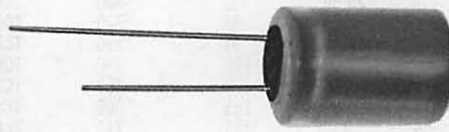
Specifications subject to change without notice.

•Type VTL Tubular Electrolytic Capacitors

MALLORY

Single Ended

The VTL is a miniaturized Aluminum Electrolytic Single-ended Capacitor which uses a newly developed high quality aluminum foil. These capacitors offer a maximum capacitance in low profile case sizes at operating voltages to 100 WVDC. The VTL offers excellent electrical performance and stability over a temperature range of -40°C to $+85^{\circ}\text{C}$. For more detailed information request Bulletin 9-765. (Replaces 502D, 503D, EV, LS, RH, RL, TW, ULA.) For prices, reference price sheet No. 311. To special order parts with epoxy end seal, place "E" suffix on part number and add .078" to part length. Diameters .395" or greater will have a scratch on vent.



HIGHLIGHTS:

Capacitance Range: 0.47 to 10,000 mfd.
 Voltage Range: 6.3 to 100 WVDC
 Temperature Range: -40°C to $+85^{\circ}\text{C}$
 Capacity Tolerance: $-10, +30\%$
 Case Sizes: 12 sizes; .197 \times .433 to .709 \times 1.575 inches
 Lead Spacing: .079 to .295 inches (See Standard Ratings List)
 Lead Diameter: .020 to .032 inches (See Standard Ratings List)

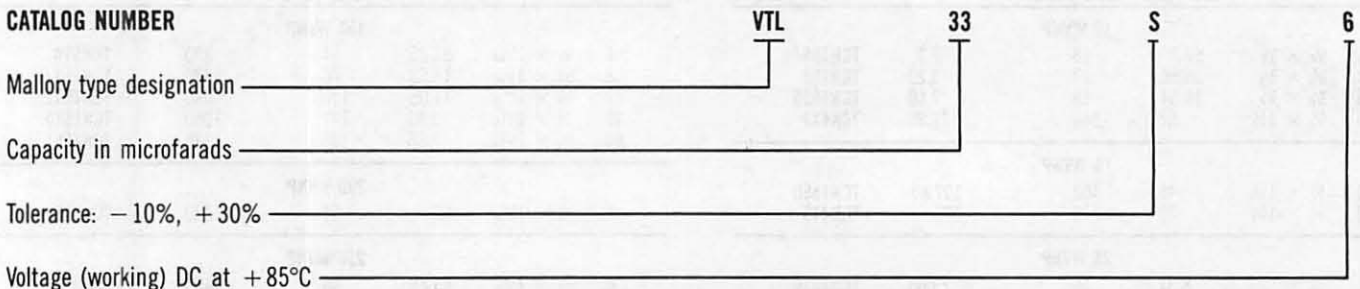
KEY FEATURES:

Aluminum container with special Rubber end seal
 All welded construction
 PVC sleeving standard
 Low DCL, Low ESR

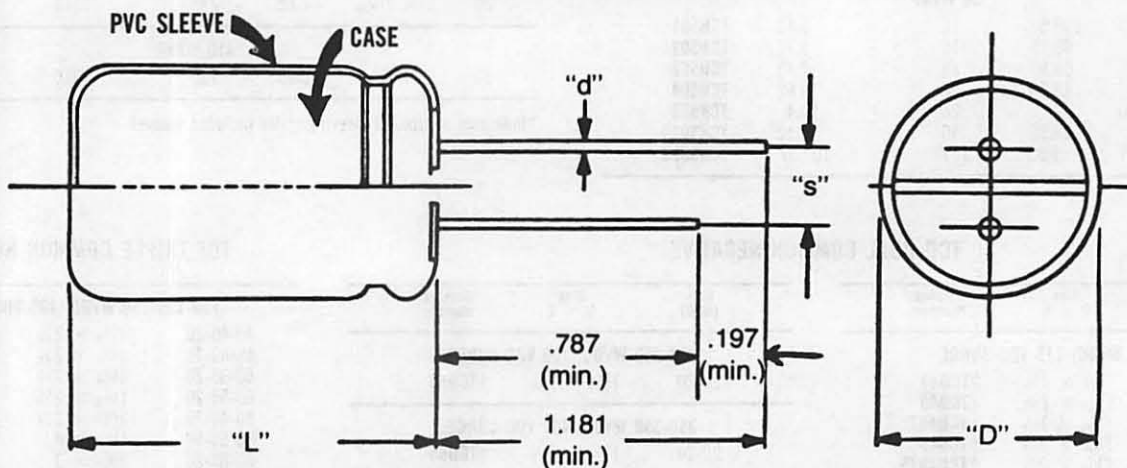
APPLICATIONS:

Power Filtering
 Bypass and coupling
 Process instrumentation
 Mobile radio and telephone
 Automotive electronics

VTL ORDERING INFORMATION



TYPE VTL OUTLINE DIMENSIONS



Refer to Standard Ratings Table for additional information.

*Tolerance on length is as follows:

When "D" is .625" or under tolerance on "L" is $\pm .04$ ".
 If "D" is greater than .625" tolerance on "L" is $\pm .08$ ".

•NEW PRODUCT

Consult your local Mallory distributor for price information.

• Tubular Electrolytic Capacitors Type VTL

Standard Ratings

Cap. (Mfd.)	Size (inches) Dia. (D) × Length (L)	Lead Spacing (inches) (s)	Lead Diameter (inches) (d)	Max. Permissible Ripple Current (mA rms) @ 120Hz +85°C	DF (%) @ 120Hz	Max. ESR (ohms) 120Hz +25°C	Max. DCL (µA) @ +25°C	Catalog No.
6.3 WVDC; 8 VDC Surge								
33	.197 × .433	.079	.020	50	22	8.84	5.07	VTL33S6
47	.197 × .433	.079	.020	65	22	6.21	5.96	VTL47S6
100	.236 × .433	.098	.024	110	22	2.92	9.30	VTL100S6
220	.315 × .433	.138	.024	215	22	1.33	16.86	VTL220S6
330	.394 × .492	.197	.024	265	22	0.88	23.79	VTL330S6
470	.394 × .492	.197	.024	315	22	0.62	32.61	VTL470S6
1000	.394 × .787	.197	.024	550	22	0.29	66.00	VTL1000S6
2200	.492 × .984	.197	.024	860	22	0.14	141.60	VTL2200S6
3300	.630 × .984	.295	.032	1100	22	0.10	210.90	VTL3300S6
4700	.630 × 1.240	.295	.032	1400	22	0.08	299.10	VTL4700S6
6800	.630 × 1.240	.295	.032	1600	22	0.06	431.40	VTL6800S6
10000	.709 × 1.575	.295	.032	2000	22	0.05	633.00	VTL10000S6
10 WVDC; 13 VDC Surge								
22	.197 × .433	.079	.020	45	19	11.45	5.20	VTL22S10
33	.197 × .433	.079	.020	55	19	7.64	6.30	VTL33S10
47	.197 × .433	.079	.020	65	19	5.36	7.70	VTL47S10
100	.236 × .433	.098	.024	120	19	2.52	13.00	VTL100S10
220	.315 × .433	.138	.024	215	19	1.15	25.00	VTL220S10
330	.394 × .492	.197	.024	285	19	0.76	36.00	VTL330S10
470	.394 × .630	.197	.024	380	19	0.54	50.00	VTL470S10
1000	.492 × .787	.197	.024	580	19	0.25	103.00	VTL1000S10
2200	.630 × .984	.295	.032	1050	19	0.13	223.00	VTL2200S10
3300	.630 × 1.240	.295	.032	1350	19	0.09	333.00	VTL3300S10
4700	.630 × 1.398	.295	.032	1600	19	0.07	473.00	VTL4700S10
6800	.709 × 1.575	.295	.032	2000	19	0.06	683.00	VTL6800S10
16 WVDC; 20 VDC Surge								
10	.197 × .433	.079	.020	35	16	21.22	4.60	VTL10S16
22	.197 × .433	.079	.020	45	16	9.65	6.52	VTL22S16
33	.197 × .433	.079	.020	55	16	6.43	8.28	VTL33S16
47	.236 × .433	.098	.024	80	16	4.52	10.52	VTL47S16
68	.236 × .433	.098	.024	100	16	3.12	13.88	VTL68S16
100	.315 × .433	.138	.024	160	16	2.12	19.00	VTL100S16
100	.236 × .630	.098	.024	160	16	2.12	19.00	VTL100S16A
220	.394 × .492	.197	.024	250	16	0.97	38.20	VTL220S16
220	.315 × .630	.138	.024	250	16	0.97	38.20	VTL220S16A
330	.394 × .630	.197	.024	350	16	0.64	55.80	VTL330S16
330	.315 × .630	.138	.024	350	16	0.64	55.80	VTL330S16A
470	.394 × .787	.197	.024	400	16	0.45	78.20	VTL470S16
470	.394 × .630	.197	.024	400	16	0.45	78.20	VTL470S16A
1000	.492 × .984	.197	.024	700	16	0.21	163.00	VTL1000S16
1000	.630 × .630	.295	.024	700	16	0.21	163.00	VTL1000S16A
2200	.630 × .984	.295	.032	1120	16	0.11	355.00	VTL2200S16
3300	.630 × 1.398	.295	.032	1500	16	0.08	531.00	VTL3300S16
4700	.709 × 1.575	.295	.032	1800	16	0.06	755.00	VTL4700S16
25 WVDC; 32 VDC Surge								
4.7	.197 × .433	.079	.020	25	14	39.51	4.18	VTL4R7S25
10	.197 × .433	.079	.020	40	14	18.57	5.50	VTL10S25
22	.197 × .433	.079	.020	50	14	8.44	8.50	VTL22S25
33	.236 × .433	.098	.024	75	14	5.63	11.25	VTL33S25
47	.236 × .433	.098	.024	85	14	3.95	14.75	VTL47S25
68	.315 × .433	.138	.024	115	14	2.73	20.00	VTL68S25
100	.315 × .433	.138	.024	170	14	1.86	28.00	VTL100S25
220	.394 × .630	.197	.024	320	14	0.84	58.00	VTL220S25
330	.394 × .787	.197	.024	410	14	0.56	85.50	VTL330S25
470	.492 × .787	.197	.024	525	14	0.40	120.50	VTL470S25
1000	.630 × .984	.295	.032	900	14	0.19	253.00	VTL1000S25
2200	.630 × 1.398	.295	.032	1300	14	0.10	553.00	VTL2200S25
3300	.709 × 1.575	.295	.032	1650	14	0.07	828.00	VTL3300S25
35 WVDC; 44 VDC Surge								
4.7	.197 × .433	.079	.020	25	12	33.88	4.65	VTL4R7S35
10	.197 × .433	.079	.020	40	12	15.92	6.50	VTL10S35
22	.236 × .433	.098	.024	70	12	7.24	10.70	VTL22S35
33	.236 × .433	.098	.024	75	12	4.83	14.55	VTL33S35
47	.315 × .433	.098	.024	120	12	3.39	19.45	VTL47S35
100	.394 × .492	.197	.024	180	12	1.59	38.00	VTL100S35
220	.394 × .787	.197	.024	330	12	0.72	80.00	VTL220S35
330	.492 × .787	.197	.024	415	12	0.48	118.50	VTL330S35
470	.492 × .984	.197	.024	540	12	0.34	167.50	VTL470S35
1000	.630 × .984	.295	.032	910	12	0.16	353.00	VTL1000S35
2200	.709 × 1.575	.295	.032	1600	12	0.08	773.00	VTL2200S35

• NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to
change without notice.

•Type VTL Tubular Electrolytic Capacitors



Standard Ratings

Cap. (Mfd)	Size (Inches) Dia. (D) × Length (L)	Lead Spacing (Inches) (s)	Lead Diameter (Inches) (d)	Max. Permissible Ripple Current (mA rms) @ 120Hz + 85°C	DF (%) @ 120Hz	Max. ESR (ohms) 120Hz + 25°C	Max. DCL (μA) @ + 25°C	Catalog No.
50 WVDC; 63 VDC Surge								
.47	.197 × .433	.079	.020	6	10	282.33	3.24	VTLR47S50
1	.197 × .433	.079	.020	13	10	132.70	3.50	VTL1S50
2.2	.197 × .433	.079	.020	20	10	60.32	4.10	VTL2R2S50
3.3	.197 × .433	.079	.020	25	10	40.21	4.65	VTL3R3S50
4.7	.197 × .433	.079	.020	35	10	28.23	5.35	VTL4R7S50
10	.197 × .433	.079	.020	45	10	13.27	8.00	VTL10S50
22	.315 × .433	.138	.024	90	10	6.03	14.00	VTL22S50
33	.315 × .433	.138	.024	110	10	4.02	19.50	VTL33S50
47	.315 × .433	.138	.024	130	10	2.82	26.50	VTL47S50
100	.394 × .630	.197	.024	245	10	1.33	53.00	VTL100S50
220	.492 × .787	.197	.024	390	10	0.60	113.00	VTL220S50
330	.492 × .984	.197	.024	540	10	0.40	168.00	VTL330S50
470	.630 × .984	.295	.032	750	10	0.28	238.00	VTL470S50
1000	.630 × 1.398	.295	.032	1200	10	0.13	503.00	VTL1000S50
63 WVDC; 79 VDC Surge								
4.7	.197 × .433	.079	.020	35	9	28.23	5.96	VTL4R7S63
10	.236 × .433	.098	.024	50	9	13.27	9.30	VTL10S63
22	.315 × .433	.138	.024	100	9	6.03	16.86	VTL22S63
33	.315 × .433	.138	.024	120	9	4.02	23.79	VTL33S63
47	.394 × .492	.197	.024	150	9	2.82	32.61	VTL47S63
100	.394 × .787	.197	.024	260	9	1.33	66.00	VTL100S63
220	.492 × .984	.197	.024	450	9	0.60	141.60	VTL220S63
330	.630 × .984	.295	.032	630	9	0.40	210.90	VTL330S63
470	.630 × .984	.295	.032	800	9	0.28	299.10	VTL470S63
1000	.709 × 1.575	.295	.032	1400	9	0.13	633.00	VTL1000S63
100 WVDC; 125 VDC Surge								
.47	.197 × .433	.079	.020	10	8	225.87	3.47	VTLR47S100
1.0	.197 × .433	.079	.020	15	8	106.16	4.00	VTL1S100
2.2	.197 × .433	.079	.020	25	8	48.25	5.20	VTL2R2S100
3.3	.197 × .433	.079	.020	30	8	32.17	6.30	VTL3R3S100
4.7	.236 × .433	.098	.024	45	8	22.59	7.70	VTL4R7S100
10	.315 × .433	.138	.024	70	8	10.62	13.00	VTL10S100
22	.394 × .492	.197	.024	120	8	4.83	25.00	VTL22S100
33	.394 × .630	.197	.024	160	8	3.22	36.00	VTL33S100
47	.394 × .630	.197	.024	210	8	2.26	50.00	VTL47S100
100	.492 × .984	.197	.024	350	8	1.06	103.00	VTL100S100
220	.630 × .984	.295	.032	620	8	0.48	223.00	VTL220S100
330	.630 × 1.240	.295	.032	820	8	0.32	333.00	VTL330S100
470	.709 × 1.575	.295	.032	1100	8	0.23	473.00	VTL470S100

EXPOSURE TO CLEANING SOLVENTS

Mallory capacitors have aluminum cases, elastomer end seals, ink identification marking and may have PVC sleeves. These materials are subject to chemical attack from some cleaning solvents. Solvent residues on the capacitors after cleaning may attack the aluminum cases. Solvent penetrating the capacitor end seal may cause internal corrosion resulting in short life. Cleaning methods for assemblies including Mallory Capacitors should be developed with the solvent vendor. Alternately, the capacitors may be mounted after cleaning the assemblies. Alcohol or water-detergent cleaning is not usually harmful but halogenated cleaning solvents are not recommended and should be avoided.

**CROSS REFERENCE
VTT VS. VTL
BY CAPACITY AND LEAD SPACING**

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
10 WVDC; 13 VDC Surge				
33	VTT33B10	.098	VTL33S25	.098
47	VTT47B10	.098	VTL47S16	.098
100	VTT100D10	.138	VTL100S16	.138
220	VTT220F10	.197	VTL220S16	.197
330	VTT330G10	.197	VTL330S10	.197
1000	VTT1000L10	.197	VTL1000S10	.197
2200	VTT2200N10	.295	VTL2200S10	.295
3300	VTT3300P10	.295	VTL3300S10	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
15 WVDC; 20 VDC Surge				
22	VTT22B16	.098	VTL22S35	.098
47	VTT47D16	.138	VTL47S50	.138
100	VTT100E16	.197	VTL100S35	.197
220	VTT220H16	.197	VTL220S16	.197
330	VTT330H16	.197	VTL330S16	.197
470	VTT470K16	.197	VTL470S16	.197
1000	VTT1000M16	.295	VTL1000S16A	.295
2200	VTT2200N16	.295	VTL2200S16	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
25 WVDC; 32 VDC Surge				
10	VTT10B25	.098	VTL10S63	.098
22	VTT22D25	.138	VTL22S50	.138
33	VTT33D25	.138	VTL33S50	.138
47	VTT47E25	.197	VTL47S63	.197
100	VTT100G25	.197	VTL100S35	.197
220	VTT220K25	.197	VTL220S25	.197
330	VTT330L25	.197	VTL330S25	.197
470	VTT470M25	.295	VTL470S50	.295
1000	VTT1000N25	.295	VTL1000S25	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
35 WVDC; 44 VDC Surge				
10	VTT10B35	.098	VTL10S63	.098
33	VTT33E35	.197	VTL33S100	.197
47	VTT47E35	.197	VTL47S63	.197
220	VTT220K35	.197	VTL220S35	.197
330	VTT330M35	.295	VTL330S63	.295
470	VTT470M35	.295	VTL470S50	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
50 WVDC; 44 VDC Surge				
1	VTT1A50	.079	VTL1S50	.079
2.2	VTT2R2A50	.079	VTL2R2S50	.079
3.3	VTT3R3A50	.079	VTL3R3S50	.079
4.7	VTT4R7B50	.098	VTL4R7S100	.098
33	VTT33G50	.197	VTL33S100	.197
100	VTT100K50	.197	VTL100S50	.197
220	VTT220M50	.295	VTL220S100	.295
330	VTT330N50	.295	VTL330S63	.295
470	VTT470N50	.295	VTL470S50	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
63 WVDC; 79 VDC Surge				
.47	VTR47A63	.079	VTLR47S100	.079
1	VTT1A63	.138	No Replacement	—
10	VTT10D63	.138	VTL10S100	.138
22	VTT22G63	.197	VTL22S100	.197
47	VTT47J63	.197	VTL47S63	.197

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
100 WVDC; 125 VDC Surge				
1	VTT1A100	.079	VTL1S100	.079
3.3	VTT3R3D100	.138	No Replacement	—
4.7	VTT4R7D100	.138	No Replacement	—
10	VTT10G100	.197	No Replacement	—
22	VTT22J100	.197	VTL22S100	.197
33	VTT33K100	.197	VTL33S100	.197
47	VTT47L100	.197	VTL47S100	.197

**CROSS REFERENCE
VTT VS. VTL
BY CAPACITY AND VOLTAGE**

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
10 WVDC; 13 VDC Surge				
33	VTT33B10	.098	VTL33S10	.079
47	VTT47B10	.098	VTL47S10	.079
100	VTT100D10	.138	VTL100S10	.098
220	VTT220F10	.197	VTL220S10	.138
330	VTT330G10	.197	VTL330S10	.197
1000	VTT1000L10	.197	VTL1000S10	.197
2200	VTT2200N10	.295	VTL2200S10	.295
3300	VTT3300P10	.295	VTL3300S10	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
16 WVDC; 20 VDC Surge				
22	VTT22B16	.098	VTL22S16	.079
47	VTT47D16	.138	VTL47S16	.098
100	VTT100E16	.197	VTL100S16	.138
220	VTT220H16	.197	VTL220S16	.197
330	VTT330H16	.197	VTL330S16	.197
470	VTT470K16	.197	VTL470S16	.197
1000	VTT1000M16	.295	VTL1000S16A	.295
2200	VTT2200N16	.295	VTL2200S16	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
25 WVDC; 32 VDC Surge				
10	VTT10B25	.098	VTL10S25	.079
22	VTT22D25	.138	VTL22S25	.079
33	VTT33D25	.138	VTL33S25	.098
47	VTT47E25	.197	VTL47S25	.098
100	VTT100G25	.197	VTL100S25	.138
220	VTT220K25	.197	VTL220S25	.197
330	VTT330L25	.197	VTL330S25	.197
470	VTT470M25	.295	VTL470S25	.197
1000	VTT1000N25	.295	VTL1000S25	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
35 WVDC; 44 VDC Surge				
10	VTT10B35	.098	VTL10S35	.079
33	VTT33E35	.197	VTL33S35	.098
47	VTT47E35	.197	VTL47S35	.098
220	VTT220K35	.197	VTL220S35	.197
330	VTT330M35	.295	VTL330S35	.197
470	VTT470M35	.295	VTL470S35	.197

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
50 WVDC; 44 VDC Surge				
1	VTT1A50	.079	VTL1S50	.079
2.2	VTT2R2A50	.079	VTL2R2S50	.079
3.3	VTT3R3A50	.079	VTL3R3S50	.079
4.7	VTT4R7B50	.098	VTL4R7S50	.079
33	VTT33G50	.197	VTL33S50	.138
100	VTT100K50	.197	VTL100S50	.197
220	VTT220M50	.295	VTL220S50	.197
330	VTT330N50	.295	VTL330S50	.197
470	VTT470N50	.295	VTL470S50	.295

Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
63 WVDC; 79 VDC Surge				
.47	VTR47A63	.079	VTLR47S100	.079
1	VTT1A63	.138	VTL1S100	.079
10	VTT10D63	.138	VTL10S63	.098
22	VTT22G63	.197	VTL22S63	.138
47	VTT47J63	.197	VTL47S63	.197

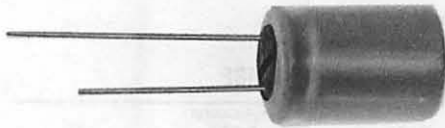
Capacity (Mfd.)	VTT Part Number	VTT Lead Spacing (inches)	Replacement Number (With exact lead spacing) VTL Part Number	VTL Lead Spacing (inches)
100 WVDC; 125 VDC Surge				
1	VTT1A100	.079	VTL1S100	.079
3.3	VTT3R3D100	.138	VTL3R3S100	.079
4.7	VTT4R7D100	.138	VTL4R7S100	.098
10	VTT10G100	.197	VTL10S100	.138
22	VTT22J100	.197	VTL22S100	.197
33	VTT33K100	.197	VTL33S100	.197
47	VTT47L100	.197	VTL47S100	.197

• NEW PRODUCT

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

•Type VTE Low Leakage Aluminum Electrolytic Capacitors



Mallory is introducing an abbreviated line of low leakage miniature aluminum electrolytic capacitors with epoxy end seal. These capacitors have been designed for substitution in certain tantalum applications. These miniature aluminum electrolytics offer near comparable size plus: Lower DCL, Higher Reverse Voltage and a much lower cost. For pricing contact factory.

HIGHLIGHTS

Capacitance Range—.1 to 47 μ F
 Voltage—16–50VDC
 Temperature Range—–40°C to +85°C
 Capacity Tolerance—M = \pm 20% (standard)
 DCL = 0.002CV or 0.4 μ A whichever is greater

Cap. (MFD)	Dimensions Dia. x Lgth.	DCL μ A	Catalog Number
16 VDC			
10	.197 x .520	0.4	VTE10M16
22	.248 x .520	0.7	VTE22M16
33	.248 x .520	1.05	VTE33M16
47	.315 x .520	15	VTE47M16
25 VDC			
10	.248 x .520	0.5	VTE10M25
22	.315 x .520	1.1	VTE22M25
33	.315 x .520	1.65	VTE33M25
35 VDC			
4.7	.197 x .520	0.4	VTE4R7M35
10	.248 x .520	0.7	VTE10M35
22	.315 x .520	1.54	VTE22M35
50 VDC			
.1	.197 x .520	0.4	VTE1M50
.22	.197 x .520	0.4	VTE22M50
.33	.197 x .520	0.4	VTE33M50
.47	.197 x .520	0.4	VTE47M50
1.0	.197 x .520	0.4	VTE1M50
2.2	.197 x .520	0.4	VTE2RM50
3.3	.197 x .520	0.4	VTE3RM50
4.7	.248 x .520	0.47	VTE4R7M50
10	.315 x .520	1.0	VTE10M50

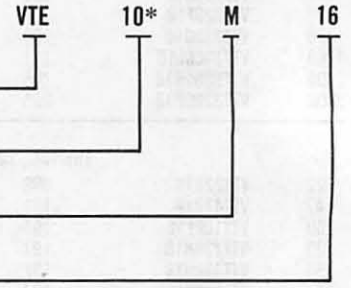
CATALOG NUMBER

TYPE DESIGNATION

RATED CAPACITY (MFD)

CAPACITY TOLERANCE (\pm 20%)

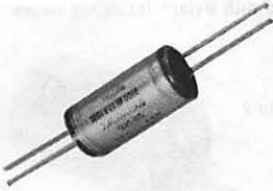
DC WORKING VOLTS



*On fractional ratings the designator "R" will be used to indicate decimal point. EXAMPLE: 4R7 = 4.7mfd

Four Terminal Tubular Capacitor Type QLA

High Performance + 105°C



The type QLA capacitor is designed as a four-terminal feed-thru device to provide low inductance and low impedance at operating frequencies well above 100KHz. Conventional two-terminal electrolytic capacitors are inductive above 10KHz.

The QLA has an axial lead configuration with positive and negative leads at both ends. Either end may be used for the input with the opposite end used for output to filter high frequency ripple.

Stock items supplied with Mylar® insulating sleeve and epoxy end fill. Replaces UFT; 604D. Request bulletin 4-107 for additional information. For prices, reference price sheet No. 312.

HIGHLIGHTS

- Capacitance: To 14000 MFD
- Voltage: 5 to 200VDC
- Tolerance: -10% +75%, -10% +50%
- Temperature: -55°C to +105°C
- Case Sizes: 13 sizes available from 3/4" x 1 1/8" to 1" x 3 1/2"

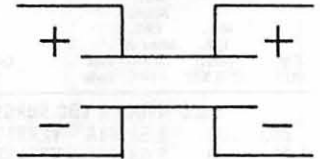
KEY FEATURES

- Low Inductance above 10KHz (2nH max.)
- Low Impedance
- High Ripple Current Capability
- Wide Operating Temperature Range
- Can Wall Safety Vent

APPLICATIONS

- Switching Regulators
- High Frequency Coupling

INTERNAL CONNECTIONS



OUTLINE DIMENSIONS

FIGURE 1
Without Epoxy Endfill

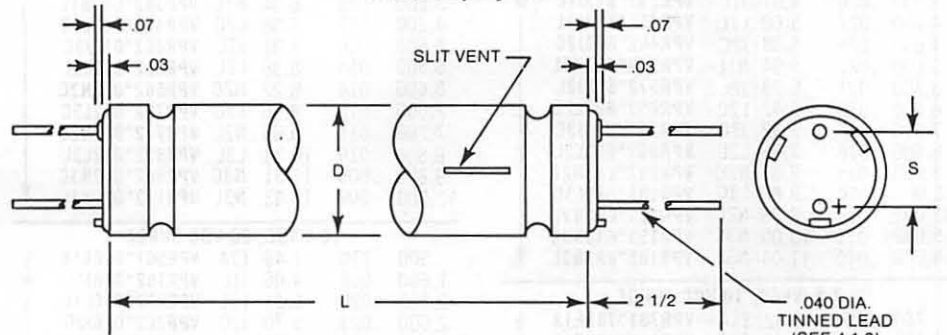
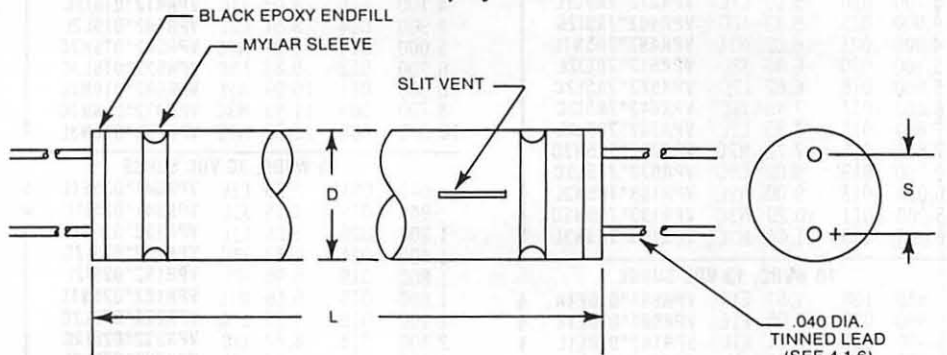


FIGURE 2
With Epoxy Endfill



STANDARD CASE SIZES

Case Size	FIGURE 1				FIGURE 2		S	Case Code
	Uninsulated		Insulated		Epoxy End Seal			
	D ± .015"	L ± .031"	D ± .015 .031	L ± .062"	D ± .031	L (max)		
3/4 x 1 5/8	0.750	1.625	0.770	1.650	0.770	1.843	0.25	J1L
3/4 x 2 1/8	0.750	2.125	0.770	2.150	0.770	2.343	0.25	J2C
3/4 x 2 5/8	0.750	2.625	0.770	2.650	0.770	2.843	0.25	J2L
3/4 x 3 1/8	0.750	3.125	0.770	3.150	0.770	3.343	0.25	J3C
7/8 x 1 5/8	0.875	1.625	0.895	1.650	0.895	1.843	0.30	L1L
7/8 x 2 1/8	0.875	2.125	0.895	2.150	0.895	2.343	0.30	L2C
7/8 x 2 5/8	0.875	2.625	0.895	2.650	0.895	2.843	0.30	L2L
7/8 x 3 1/8	0.875	3.125	0.895	3.150	0.895	3.343	0.30	L3C
1 x 1 5/8	1.000	1.625	1.020	1.650	1.020	1.843	0.40	N1L
1 x 2 1/8	1.000	2.125	1.020	2.150	1.020	2.343	0.40	N2C
1 x 2 5/8	1.000	2.625	1.020	2.650	1.020	2.843	0.40	N2L
1 x 3 1/8	1.000	3.125	1.020	3.150	1.020	3.343	0.40	N3C
1 x 3 5/8	1.000	3.625	1.020	3.650	1.020	3.843	0.40	N3L

Cap. (MFD)	Max. Impedance Ohms @ 10KHz & 100KHz	Max. Ripple Amps RMS @ 85°C & 20A DC	Case Code	Catalog No.
7.5 WVDC; 10 VDC SURGE				
2,000	.075	1.4	J1L	QLA202U7R5J1L
5,000	.030	3.0	J3C	QLA502U7R5J3C
6,200	.024	3.3	N2C	QLA622U7R5N2C
9,000	.017	4.4	N2L	QLA902U7R5N2L
14,000	.011	6.6	N3L	QLA143U7R5N3L
10 WVDC; 15 VDC SURGE				
1,700	.082	1.3	J1L	QLA172U010J1L
3,000	.047	2.2	J2L	QLA302U010J2L
5,100	.027	3.2	N2C	QLA512U010N2C
7,500	.019	4.1	N2L	QLA752U010N2L
12,000	.012	6.2	N3L	QLA123U010N3L
16 WVDC; 20 VDC SURGE				
1,400	.086	1.2	J1L	QLA142U016J1L
2,700	.044	2.0	L2C	QLA272U016L2C
4,200	.029	2.9	N2C	QLA422U016N2C
6,400	.019	4.1	L3L	QLA642U016L3L
10,000	.012	5.9	N3L	QLA103U016N3L
20 WVDC; 25 VDC SURGE				
1,200	.092	1.2	J1C	QLA122U020J1L
2,400	.046	1.9	L2C	QLA242U020L2C
3,400	.032	2.6	L2L	QLA342U020L2L
5,300	.021	3.5	N2L	QLA532U020N2L
8,600	.013	5.5	N3L	QLA862U020N3L
30 WVDC; 40 VDC SURGE				
700	.129	1.0	J1L	QLA701U030J1L
1,600	.056	1.75	L2C	QLA162U030L2C
2,200	.041	2.35	L2L	QLA222U030L2L
3,000	.030	2.90	L3C	QLA302U030L3C
4,500	.020	4.40	N3L	QLA452U030N3L
50 WVDC; 75 VDC SURGE				
300	.167	0.93	J1L	QLA301U050J1L
700	.071	1.60	L2C	QLA701U050L2C
1,000	.050	2.15	L2L	QLA102U050L2L
1,600	.031	3.40	N3C	QLA162U050N3C
2,000	.025	4.25	N3L	QLA202U050N3L
75 WVDC; 100 VDC SURGE				
350	.110	1.10	L1L	QLA351U075L1L
850	.053	2.25	L3C	QLA851U075L3C
1,300	.035	3.55	N3L	QLA132U075N3L
100 WVDC; 125 VDC SURGE				
170	.235	0.90	J2C	QLA171T100J2C
430	.093	1.60	L2L	QLA431T100L2L
850	.047	3.15	N3L	QLA851T100N3L
150 WVDC; 200 VDC SURGE				
90	.389	0.80	J2C	QLA900T150J2C
200	.175	1.40	N2C	QLA201T150N2C
470	.074	2.85	N3L	QLA471T150N3L
200 WVDC; 250 VDC SURGE				
50	.600	0.60	J1L	QLA500T200J1L
150	.200	1.25	L2L	QLA151T200L2L
320	.094	2.50	N3L	QLA321T200N3L

Consult your local Mallory distributor for price information.

Type VPR + 105°C Single-Ended Tubular Capacitors



High Performance

Designed for use in high frequency switching regulators where low impedance and low inductance characteristics are required. The A & C lead configuration are standard distributor items. The B, J, & T configurations are available on request.

Low loss high frequency characteristics make this capacitor ideal in bypass and coupling applications in data processing equipment. Supplied with Mylar® insulating sleeve. Replaces 672D/673D; 300/301. Ask for bulletin 4-106.

HIGHLIGHTS

- Capacitance: From 34 to 18,000 μF
- Voltage: From 6.3 to 100 volts
- Tolerance: -10 +75%
- Temperature: -55°C to +105°C
- Case Sizes: 22 sizes available from 1/2" x 1" to 1" x 3/8" for vertical mounting in PC boards
- Grade: Industrial, Computer Grade

KEYS FEATURES

- Low Impedance, Low ESR
- Low Inductance
- High Ripple Current Capability
- Wide Operating Temperature Range
- Excellent Temperature Stability
- Can Wall Safety Vent
- Five Different Lead Configurations

APPLICATIONS

- Switching regulators
- High Frequency coupling
- Bypass circuits



Cap. (MFD)	Max. ESR (ohms) @10 KHz	Max. Ripple RMS Amps @ 10 KHz +85°C	Case Code*	Catalog No.	Lead Code Configuration†
6.3 WVDC; 8 VDC SURGE					
880	.106	1.53	E1A	VPR881*6R3E1A	\$
1,300	.073	2.03	E1E	VPR132*6R3E1E	\$
2,900	.036	4.07	J1L	VPR292*6R3J1L	#
4,100	.027	5.00	L1L	VPR412*6R3L1L	
4,600	.025	5.38	J2C	VPR462*6R3J2C	
5,600	.021	5.94	N1L	VPR562*6R3N1L	
5,700	.021	6.33	J2L	VPR572*6R3J2L	
6,500	.019	6.47	L2C	VPR652*6R3L2C	
7,200	.017	7.32	J3C	VPR722*6R3J3C	
8,600	.016	7.66	L2L	VPR862*6R3L2L	
8,800	.015	7.53	N2C	VPR882*6R3N2C	
10,000	.014	8.60	L3C	VPR103*6R3L3C	
12,000	.013	8.86	N2L	VPR123*6R3N2L	
15,000	.011	10.00	N3C	VPR153*6R3N3C	
18,000	.010	11.04	N3L	VPR183*6R3N3L	
7.5 WVDC; 10 VDC SURGE					
780	.107	1.52	E1A	VPR781*7R5E1A	\$
1,100	.077	1.98	E1E	VPR112*7R5E1E	\$
1,700	.051	2.73	E1L	VPR172*7R5E1L	\$
2,600	.035	4.11	J1L	VPR262*7R5J1L	#
3,700	.026	5.10	L1L	VPR372*7R5L1L	
4,000	.025	5.43	J2C	VPR402*7R5J2C	
4,900	.021	6.02	N1L	VPR492*7R5N1L	
5,100	.020	6.46	J2L	VPR512*7R5J2L	
5,800	.018	6.62	L2C	VPR582*7R5L2C	
6,400	.017	7.49	J3C	VPR642*7R5J3C	
7,600	.015	7.85	L2L	VPR762*7R5L2L	
7,800	.015	7.72	N2C	VPR782*7R5N2C	
9,700	.013	9.02	L3C	VPR972*7R5L3C	
10,000	.013	9.00	N2L	VPR103*7R5N2L	
13,000	.011	10.29	N3C	VPR133*7R5N3C	
16,000	.009	11.44	N3L	VPR163*7R5N3L	
10 WVDC; 13 VDC SURGE					
660	.108	1.51	E1A	VPR661*010E1A	\$
990	.072	2.05	E1E	VPR991*010E1E	\$
1,400	.052	2.71	E1L	VPR142*010E1L	\$
2,100	.036	4.06	J1L	VPR212*010J1L	#
3,100	.026	5.20	L1L	VPR312*010L1L	
3,400	.024	5.57	J2C	VPR342*010J2C	
4,200	.020	6.22	N1L	VPR422*010N1L	
4,300	.019	6.64	J2L	VPR432*010J2L	
4,900	.018	6.82	L2C	VPR492*010L2C	
5,400	.016	7.74	J3C	VPR542*010J3C	
6,400	.015	8.13	L2L	VPR642*010L2L	
6,600	.014	8.01	N2C	VPR662*010N2C	
8,200	.012	9.40	L3C	VPR822*010L3C	
9,000	.011	9.53	N2L	VPR902*010N2L	
11,000	.010	10.79	N3C	VPR113*010N3C	
13,000	.009	11.95	N3L	VPR133*010N3L	
12 WVDC; 18 VDC SURGE					
560	.110	1.50	E1A	VPR561*012E1A	\$
1,200	.052	2.71	E1L	VPR122*012E1L	\$
1,500	.042	3.49	L1C	VPR152*012L1C	#
1,800	.036	4.07	J1L	VPR182*012J1L	
2,600	.026	5.22	L1L	VPR262*012L1L	

Cap. (MFD)	Max. ESR (ohms) @10 KHz	Max. Ripple RMS Amps @ 10 KHz +85°C	Case Code*	Catalog No.	Lead Code Configuration†
12 WVDC; 18 VDC SURGE (Continued)					
2,900	.024	5.65	J2C	VPR292*012J2C	#
3,600	.020	6.73	J2L	VPR362*012J2L	
3,600	.020	6.34	N1L	VPR362*012N1L	
4,200	.017	6.98	L2C	VPR422*012L2C	
4,600	.016	7.91	J3C	VPR462*012J3C	
5,500	.014	8.36	L2L	VPR552*012L2L	
5,600	.014	8.22	N2C	VPR562*012N2C	
7,000	.012	9.70	L3C	VPR702*012L3C	
7,700	.011	9.86	N2L	VPR772*012N2L	
8,500	.010	10.93	L3L	VPR852*012L3L	
9,800	.009	11.31	N3C	VPR982*012N3C	
11,000	.009	12.43	N3L	VPR113*012N3L	
16 WVDC; 20 VDC SURGE					
500	.110	1.49	E1A	VPR501*016E1A	\$
1,600	.036	4.06	J1L	VPR162*016J1L	#
2,300	.026	5.21	L1L	VPR232*016L1L	
2,600	.023	5.70	J2C	VPR262*016J2C	
3,200	.019	6.80	J2L	VPR322*016J2L	
3,200	.020	6.41	N1L	VPR322*016N1L	
3,700	.017	7.05	L2C	VPR372*016L2C	
4,100	.016	8.03	J3C	VPR412*016J3C	
4,900	.014	8.51	L2L	VPR492*016L2L	
5,000	.014	8.37	N2C	VPR502*016N2C	
6,200	.012	9.89	L3C	VPR622*016L3C	
6,900	.011	10.09	N2L	VPR692*016N2L	
8,700	.009	11.59	N3C	VPR872*016N3C	
10,000	.008	12.82	N3L	VPR103*016N3L	
25 WVDC; 30 VDC SURGE					
640	.051	2.75	E1L	VPR641*025E1L	\$
940	.035	4.15	J1L	VPR941*025J1L	#
1,300	.026	5.25	L1L	VPR132*025L1L	
1,400	.024	5.63	J2C	VPR142*025J2C	
1,800	.019	6.96	J2L	VPR182*025J2L	
1,800	.019	6.56	N1L	VPR182*025N1L	
2,100	.016	7.35	L2C	VPR212*025L2C	
2,300	.015	8.42	J3C	VPR232*025J3C	
2,800	.013	9.17	L2L	VPR282*025L2L	
2,800	.013	8.96	N2C	VPR282*025N2C	
3,500	.011	10.77	L3C	VPR352*025L3C	
3,900	.010	11.08	N2L	VPR392*025N2L	
4,900	.008	12.92	N3C	VPR492*025N3C	
5,900	.007	14.62	N3L	VPR592*025N3L	
40 WVDC; 50 VDC SURGE					
160	.184	1.16	E1A	VPR161*040E1A	\$
240	.122	1.57	E1E	VPR241*040E1E	\$
360	.082	2.17	E1L	VPR361*040E1L	\$
540	.054	3.31	J1L	VPR541*040J1L	#
760	.039	4.28	L1L	VPR761*040L1L	
850	.035	4.70	J2C	VPR851*040J2C	
1,000	.029	5.30	N1L	VPR102*040N1L	
1,100	.027	5.89	J2L	VPR112*040J2L	
1,200	.024	6.07	L2C	VPR122*040L2C	
1,300	.023	6.95	J3C	VPR132*040J3C	
1,600	.018	7.72	L2L	VPR162*040L2L	
1,600	.018	7.54	N2C	VPR162*040N2C	

Cap. (MFD)	Max. ESR (ohms) @10 KHz	Max. Ripple RMS Amps @ 10 KHz +85°C	Case Code*	Catalog No.	Lead Code Configuration†
40 WVDC; 50 VDC SURGE (Continued)					
2,000	.015	9.36	L3C	VPR202*040L3C	#
2,200	.013	9.73	N2L	VPR222*040N2L	
2,800	.010	11.89	N3C	VPR282*040N3C	
3,300	.009	13.84	N3L	VPR332*040N3L	
50 WVDC; 65 VDC SURGE					
110	.267	.96	E1A	VPR111*050E1A	\$
160	.184	1.28	E1E	VPR161*050E1E	\$
250	.118	1.81	E1L	VPR251*050E1L	\$
420	.070	2.92	J1L	VPR421*050J1L	#
600	.049	3.81	L1L	VPR601*050L1L	
630	.047	4.04	J2C	VPR631*050J2C	
810	.036	4.77	N1L	VPR811*050N1L	
840	.035	5.15	L2L	VPR841*050J2L	
900	.033	5.26	L2C	VPR901*050L2C	
960	.031	5.97	J3C	VPR961*050J3C	
1,200	.024	6.68	L2L	VPR122*050L2L	
1,200	.024	6.53	N2C	VPR122*050N2C	
1,400	.021	7.83	L3C	VPR142*050L3C	
1,600	.018	8.30	N2L	VPR162*050N2L	
2,000	.015	10.05	N3C	VPR202*050N3C	
2,400	.012	11.80	N3L	VPR242*050N3L	
75 WVDC; 95 VDC SURGE					
62	.474	.72	E1A	VPR620*075E1A	\$
93	.316	.98	E1E	VPR930*075E1E	\$
140	.210	1.35	E1L	VPR141*075E1L	\$
230	.128	2.16	J1L	VPR231*075J1L	#
330	.089	2.82	J1L	VPR331*075L1L	
350	.084	3.01	L2C	VPR351*075J2C	
450	.065	3.55	N1L	VPR451*075N1L	
470	.062	3.85	J2L	VPR471*075J2L	
500	.059	3.92	L2C	VPR501*075L2C	
540	.054	4.48	J3C	VPR541*075J3C	
670	.044	4.99	L2L	VPR671*075L2L	
680	.043	4.92	N2C	VPR681*075N2C	
810	.036	5.96	L3C	VPR811*075L3C	
900	.033	6.22	N2L	VPR901*075N2L	
1,100	.027	7.45	N3C	VPR112*075N3C	
1,300	.022	8.68	N3L	VPR132*075N3L	
100 WVDC; 125 VDC SURGE					
34	.865	.53	E1A	VPR340*100E1A	\$
52	.565	.73	E1E	VPR520*100E1E	\$
78	.377	1.01	E1L	VPR780*100E1L	\$
130	.226	1.63	J1L	VPR131*100J1L	#
180	.163	2.08	L1L	VPR181*100L1L	
190	.155	2.22	J2C	VPR191*100J2C	
250	.117	2.65	N1L	VPR251*100N1L	
260	.113	2.86	J2L	VPR261*100J2L	
280	.105	2.93	L2C	VPR281*100L2C	
300	.098	3.34	J3C	VPR301*100J3C	
360	.082	3.92	J3L	VPR361*100J3L	
370	.079	3.71	L2L	VPR371*100L2L	
380	.077	3.67	N2C	VPR381*100N2C	
450	.065	4.44	L3C	VPR451*100L3C	
500	.059	4.64	N2L	VPR501*100N2L	
540	.054	5.21	L3L	VPR541*100L3L	
630	.047	5.64	N3C	VPR631*100N3C	

† See page 35 for Case Code Identification and Lead Code Configuration.

\$ Specify configuration C, T, or J; # Specify configuration A, T, J or B.

* Specify tolerance: U = -10, +75% (standard); T = -10, +50%; N = -10, +100%.

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

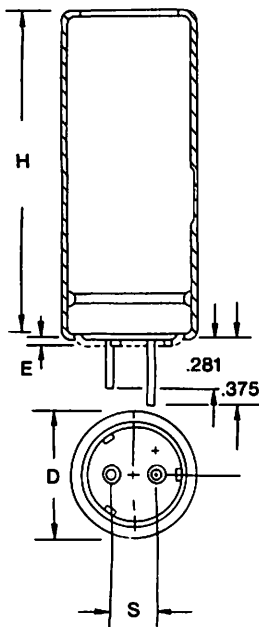
Type VPR + 105°C Single-Ended Tubular Capacitors

High Performance

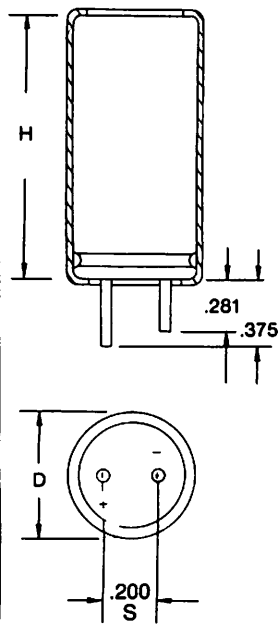
TABLE OF DIMENSIONS

CASE SIZE	CASE CODE	UNINSULATED				INSULATED				FIG. A S	FIG. "T" & "J" S	FIG. "B"		LEAD WIRE SIZE	
		D ± .015 In.	D ± .015 mm	H ± .031 In.	H ± .031 mm	D ± .015 In.	D ± .015 mm	H ± .015 In.	H ± .015 mm			S	X	DIA.	AWG.
1/2×1	E1A	.500	12.7	1.00	25.4	.515	13.1	1.02	25.9	—	.20	—	—	.032	#20
1/2×1 1/4	E1E	.500	12.7	1.25	31.8	.515	13.1	1.29	33.0	—	.20	—	—	.032	#20
1/2×1 5/8	E1L	.500	12.7	1.625	41.3	.515	13.1	1.64	41.7	—	.20	—	—	.032	#20
3/4×1 1/8	J1C	.750	19.1	1.125	28.6	.765	19.4	1.140	28.9	.25	.25	.20	.30	.040	#18
3/4×1 5/8	J1L	.750	19.1	1.625	41.3	.765	19.4	1.64	41.7	.25	.25	.20	.30	.040	#18
3/4×2 1/8	J2C	.750	19.1	2.125	53.9	.765	19.4	2.14	54.4	.25	.25	.20	.30	.040	#18
3/4×2 5/8	J2L	.750	19.1	2.625	66.7	.765	19.4	2.64	67.1	.25	.25	.20	.30	.040	#18
3/4×3 1/8	J3C	.750	19.1	3.125	79.4	.765	19.4	3.14	79.8	.25	.25	.20	.30	.040	#18
3/4×3 5/8	J3L	.750	19.1	3.625	92.1	.765	19.4	3.64	92.5	.25	.25	.20	.30	.040	#18
7/8×1 1/8	L1C	.875	22.2	1.125	28.6	.890	22.6	1.14	28.9	.30	.30	.30	.40	.040	#18
7/8×1 5/8	L1L	.875	22.2	1.625	41.3	.890	22.6	1.64	41.7	.30	.30	.30	.40	.040	#18
7/8×2 1/8	L2C	.875	22.2	2.125	53.9	.890	22.6	2.14	54.4	.30	.30	.30	.40	.040	#18
7/8×2 5/8	L2L	.875	22.2	2.625	66.7	.890	22.6	2.64	67.1	.30	.30	.30	.40	.040	#18
7/8×3 1/8	L3C	.875	22.2	3.125	79.4	.890	22.6	3.14	79.8	.30	.30	.30	.40	.040	#18
7/8×3 5/8	L3L	.875	22.2	3.625	92.1	.890	22.6	3.64	92.5	.30	.30	.30	.40	.040	#18
1×1 1/8	N1C	1.00	25.4	1.125	28.6	1.015	28.8	1.14	28.9	.40	.40	.30	.40	.040	#18
1×1 3/8	N1G	1.00	25.4	1.375	34.9	1.015	28.8	1.39	35.3	.40	.40	.30	.40	.040	#18
1×1 5/8	N1L	1.00	25.4	1.625	41.3	1.015	28.8	1.64	41.7	.40	.40	.30	.40	.040	#18
1×2 1/8	N2C	1.00	25.4	2.125	53.9	1.015	28.8	2.14	54.4	.40	.40	.30	.40	.040	#18
1×2 5/8	N2L	1.00	25.4	2.625	66.7	1.015	28.8	2.64	67.1	.40	.40	.30	.40	.040	#18
1×3 1/8	N3C	1.00	25.4	3.125	79.4	1.015	28.8	3.14	79.8	.40	.40	.30	.40	.040	#18
1×3 5/8	N3L	1.00	25.4	3.625	92.1	1.015	28.8	3.64	92.5	.40	.40	.30	.40	.040	#18

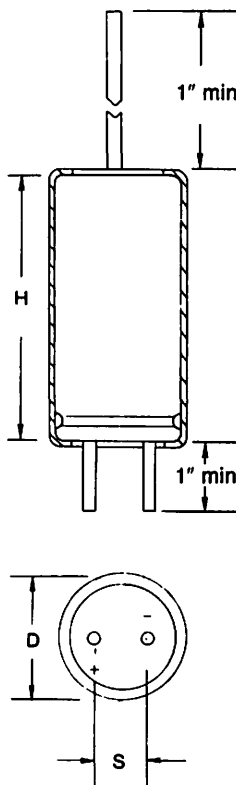
**STANDARD
FIG. A
(3/4", 7/8", 1" DIA.)**



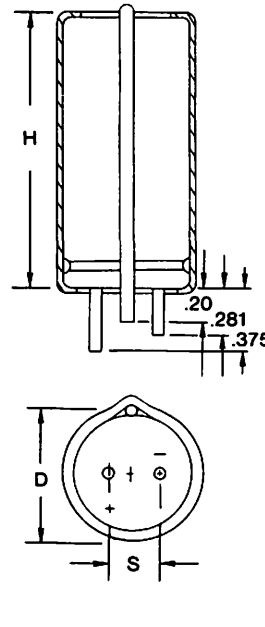
**STANDARD
FIG. C
(1/2" DIA. ONLY)**



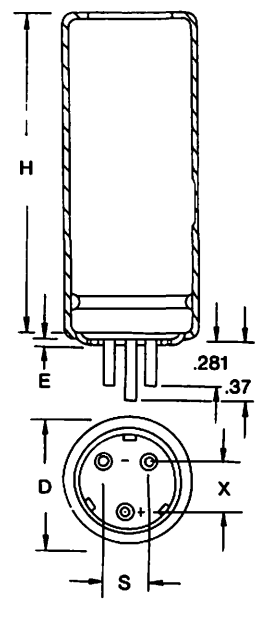
**FIG. J*
(1/2", 3/4", 7/8", 1" DIA.)**



**FIG. T*
(1/2", 3/4", 7/8", 1" DIA.)**



**FIG. B
(3/4", 7/8", 1" DIA.)**



NOTES:

- *The T & J configurations, in the 3/4 dia. up will be supplied with standoffs "E".
- Dimension "E" stand-off is nominally 0.100.

Consult your local Mallory distributor for price information.

Type OP/RP AC Motor Run Capacitors



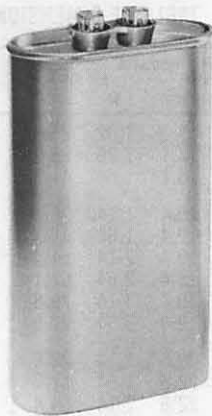
All types have metal cases and four blade quick-connect terminals with flash guards. Impregnating oil is Biodegradable non-PCB. Always connect AC line to red or marked terminal and winding to other terminal. Letter suffix "R" indicates a resistor across terminals of capacitor. All other suffix letters indicate case size changes. Allow 1/2" clearance above terminals for interrupter operation. Request bulletin 4-403 for complete technical data. For pricing, refer to price sheet No. 307. Replaces OV, 26F, KKN, KNN, P16.

HIGHLIGHTS

Capacitance Range—1 to 60 μ F
 Voltage—236-660 VAC
 Temperature Range— -55°C to +70°C
 Operating Frequency—50-60 Hz

FEATURES

- Internally protected
- U/L recognized (File No. E65270)
- CSA certified (File No. LR41685-2)



OPN



OPRN



RPN

AC MOTOR RUN (NON-PCB BIONOL™) CAPACITORS

Cap. (MFD)	Vac Volts	+ Base + Style	Height Inches	Cap. Tol.	DCI No. 114326-	Catalog Number
OVAL TYPE						
3	236	32	1 1/16	± 10%	-20601	OPN336
4	236	32	2	± 10%	-20616	OPN436
5	236	32	2 3/8	± 10%	-20631	OPN536
7.5	236	32	2 3/8	± 10%	-20421	OPN7X36
10	236	31	2 1/4	± 10%	-20661	OPN1036A
15	236	31	2 3/4	± 10%	-20694	OPN1536A
20	236	31	3 3/8	± 10%	-20709	OPN2036
1	370	32	1 1/16	± 10%	-20586	OPN170
2	370	32	1 1/16	± 10%	-20596	OPN270
3	370	32	2	± 10%	-20611	OPN370
4	370	32	2 3/8	± 10%	-20626	OPN470
5	370	32	2 3/4	± 10%	-20641	OPN570
6	370	32	3 3/8	± 10%	-20651	OPN670
7.5	370	32	3 3/4	± 10%	-20436	OPN7X570A
10	370	32	4 3/8	± 10%	-20686	OPN1070A
12.5	370	37	3 3/8	± 10%	-20461	OPN12X70
15	370	37	3 3/8	± 10%	-20706	OPN1570B
17.5	370	37	4 3/8	± 10%	-20816	OPN17570B
20	370	37	4 3/8	± 10%	-20731	OPN2070B
25	370	37	5 3/8	± 10%	-20746	OPN2570B
27.5	370	38	5 3/4	± 10%	-20821	OPN27570
30	370	38	5 3/8	± 10%	-20761	OPN3070
35	370	38	7	± 10%	-20771	OPN3570
40	370	38	7 3/8	± 10%	-20781	OPN4070
45	370	38	8 3/4	± 10%	-20791	OPN4570
50	370	38	9 1/2	± 10%	-20796	OPN5070
15/3	370	38	4 3/8	± 10%	-20464	OPN15D370
15/4	370	37	4 3/8	± 10%	-20468	OPN15D470
15/5	370	37	5 1/4	± 10%	-20471	OPN15D570
15/10	370	37	6 1/4	± 10%	-20475	OPN15D1070
17.5/4	370	37	5 3/4	± 10%	-20479	OPN17D470
17.5/5	370	37	5 3/4	± 10%	-20481	OPN17D570
20/4	370	37	6 1/4	± 10%	-20499	OPN20D470
20/5	370	37	6 1/4	± 10%	-20505	OPN20D570A
20/15	370	38	7 1/4	± 10%	-20516	OPN20D1570A
25/3	370	38	5 3/4	± 10%	-20526	OPN25D370
25/4	370	38	5 3/4	± 10%	-20529	OPN25D470
25/5	370	38	5 3/8	± 10%	-20536	OPN25D570
30/5	370	38	7 1/4	± 10%	-20561	OPN30D570
35/3	370	38	7 3/4	± 10%	-20567	OPN35D370
35/4	370	38	8	± 10%	-20569	OPN35D470
35/5	370	38	8 1/4	± 10%	-20576	OPN35D570A

Cap. (MFD)	Vac Volts	+ Base + Style	Height Inches	Cap. Tol.	DCI No. 114326-	Catalog Number
OVAL TYPE (Continued)						
1	440	32	1 1/16	± 10%	-20587	OPN140
2	440	32	2	± 10%	-20591	OPN240
3	440	32	2 1/2	± 10%	-20606	OPN340
3.5	440	32	2 3/8	± 10%	-20410	OPN3X40
4	440	32	3 3/8	± 10%	-20621	OPN440
5	440	32	3 3/8	± 10%	-20636	OPN540
6	440	32	4 1/4	± 10%	-20646	OPN640
7.5	440	31	2 3/8	± 10%	-20426	OPN7X40
10	440	37	3 3/8	± 10%	-20666	OPN1040
12.5	440	37	4 3/8	± 10%	-20456	OPN12X40
15	440	37	5 3/8	± 10%	-20698	OPN1540A
17.5	440	37	6	± 10%	-20496	OPN17X40
20	440	38	5 1/2	± 10%	-20721	OPN2040B
25	440	38	6 3/8	± 10%	-20736	OPN2540
30	440	38	7 3/4	± 10%	-20756	OPN3040
35	440	38	9	± 10%	-20766	OPN3540
40	440	38	9 1/2	± 10%	-20778	OPN4040
10/4	440	37	5 1/4	± 10%	-20446	OPN10D440
17.5/7.5	440	38	6 3/4	± 10%	-20486	OPN17D740
20/15	440	38	9 1/2	± 10%	-20491	OPN17D1740
25/4	440	38	9 1/2	± 10%	-20511	OPN20D1540R
25/3	440	38	7 3/4	± 10%	-20531	OPN25D440
35/3	440	38	9 1/2	± 10%	-20566	OPN35D340
35/5	440	38	9 1/2	± 10%	-20573	OPN35D540
15	480	37	6 1/2	± 10%	-20707	OPN1580
20	480	38	6 1/4	± 10%	-20734	OPN2080A
25	480	38	8 1/4	± 10%	-20753	OPN2580
30	480	38	9 1/2	± 10%	-20763	OPN3080
1	660	32	2	± 6%	-20588	OPN160
2	660	32	2 3/8	± 6%	-20593	OPN260
3	660	37	2 3/8	± 6%	-20608	OPN360
4	660	37	2 3/8	± 6%	-20623	OPN460
5	660	37	3 3/8	± 6%	-20638	OPN560
6	660	37	3 3/8	± 6%	-20648	OPN660
7.5	660	37	4 3/8	± 6%	-20428	OPN7X60
8	660	37	4 3/8	± 6%	-20659	OPN860
10	660	37	5 3/4	± 6%	-20673	OPN1060
12	660	38	5 1/2	± 6%	-20692	OPN1260
15	660	38	6 3/8	± 6%	-20699	OPN1560
20	660	38	8 1/2	± 6%	-20723	OPN2060

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Cap. (MFD)	Vac Volts	+ Base + Style	Height Inches	Cap. Tol.	DCI No. 114326-	Catalog Number
RECTANGULAR TYPE						
25	370	27	3 ⁵ / ₁₆	± 10%	-20866	OPRN2570
30	370	27	3 ¹ / ₂	± 10%	-20875	OPRN3070
35	370	27	4 ¹ / ₈	± 10%	-20886	OPRN3570
40	370	27	4 ³ / ₈	± 10%	-20896	OPRN4070
45	370	27	5	± 10%	-20906	OPRN4570
20	440	27	3 ³ / ₈	± 10%	-20846	OPRN2040B
25	440	27	4	± 10%	-20856	OPRN2540
30	440	27	4 ¹ / ₂	± 10%	-20871	OPRN3040
35	440	27	5 ¹ / ₈	± 10%	-20881	OPRN3540
40	440	27	5 ³ / ₄	± 10%	-20891	OPRN4040
45	440	27	6 ¹ / ₄	± 10%	-20901	OPRN4540
50	440	27	7 ³ / ₈	± 10%	-20916	OPRN5040B
55	440	27	8	± 10%	-20921	OPRN5540
60	440	27	8 ⁵ / ₈	± 10%	-20935	OPRN6040A
35	480	27	6 ¹ / ₄	± 10%	-20889	OPRN3580
40	480	27	7	± 10%	-20898	OPRN4080

Cap. (MFD)	Vac Volts	+ Base + Style	Height Inches	Cap. Tol.	DCI No. 114326-	Catalog Number
ROUND TYPE						
3	330	23	1 ³ / ₄	± 10%	-22081	RPN3303
4	330	23	2 ¹ / ₁₆	± 10%	-22086	RPN3304
5	330	23	2 ¹ / ₁₆	± 10%	-22091	RPN3305
6	330	23	2 ³ / ₈	± 10%	-22096	RPN3306
7	330	23	2 ⁵ / ₈	± 10%	-22101	RPN3307
8	330	23	2 ⁷ / ₈	± 10%	-22106	RPN3308
10	330	23	3 ³ / ₈	± 10%	-22114	RPN3310A
12	330	23	3 ⁷ / ₈	± 10%	-22120	RPN3312A

BASE STYLE DIMENSIONS

OVAL:

- 31 Style = 2⁵/₃₂ × 2²⁷/₃₂
- 32 Style = 1⁵/₁₆ × 2⁵/₃₂
- 37 Style = 1²⁹/₃₂ × 2²⁹/₃₂
- 38 Style = 1³¹/₃₂ × 3²¹/₃₂

RECTANGULAR:

- 27 Style = 2²⁷/₃₂ × 4⁹/₁₆

ROUND:

- 23 Style = 2" dia.

Consult your local Mallory distributor for price information.

Type MPD/MPF Metallized Polypropylene Capacitors



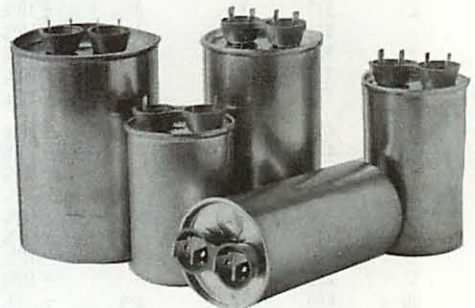
Metallized polypropylene film dielectric capacitors offer a new alternative for alternating current applications. These capacitors pack the same capacitance and voltage capabilities of a conventional paper capacitor into a smaller case of considerably lighter weight. In addition these parts have extremely low dissipation factors. They offer high reliability and long life and meet EIA Standard RS-456 Characteristic "E". Request bulletin 4-404 for complete technical data. For pricing, refer to price sheet No. 319. Replaces 315P, 325P, 97F3, 223/24/26.

HIGHLIGHTS

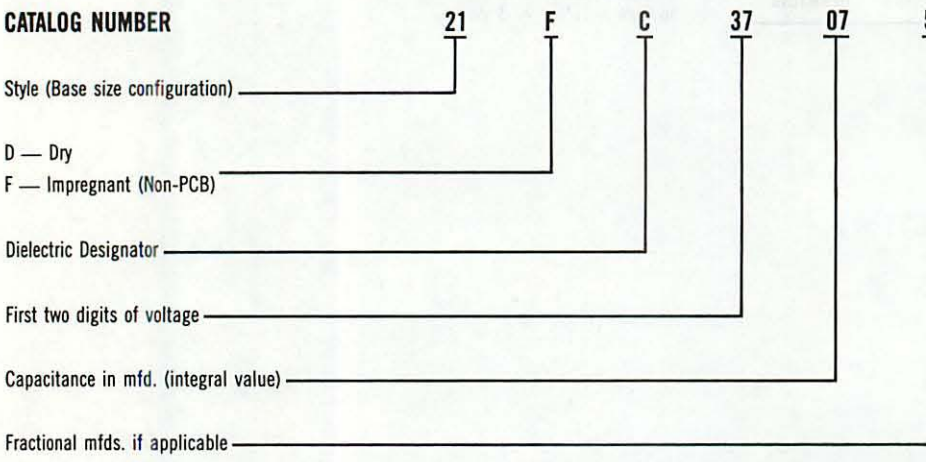
- Capacitance Range — 2 to 60 μ F
- Capacity Tolerance — $\pm 10\%$ (standard)
- Voltage — 180 to 240 VAC dry;
330 to 440 VAC oil-filled.
- Operating Frequency — 50 to 60 Hz
- Dissipation Factor — 0.1% Max. @ 60Hz
- Operating Temperature — -40°C to $+70^{\circ}\text{C}$
- U/L Recognized — yellow card number E65270 (N)

FEATURES

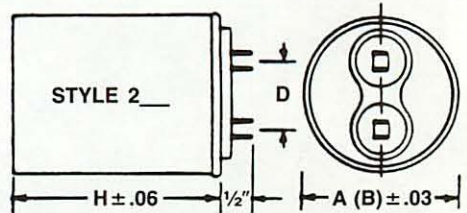
- Internal protector
- Oil-filled parts are environmentally safe
- Long life and high reliability



ORDERING INFORMATION



+ Base + Style	A	Round Containers B	H	D	Industry Type
21	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "	*	1 $\frac{3}{16}$ "	1 $\frac{3}{4}$ " Round
23	2"	2"	*	1 $\frac{3}{16}$ "	2" Round
24	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	*	1 $\frac{3}{16}$ "	2 $\frac{1}{2}$ " Round



METALLIZED POLYPROPYLENE FILM RUN CAPACITORS TYPE MPD/MPF

Cap. (MFD)	Vac. Volts	+ Base + Style	Height Inches	Cap. Tol.	DCI No. 114326-	Catalog Number
15	180	21	3"	$\pm 10\%$	-26815	21DE1815
17.5	180	21	3"	$\pm 10\%$	-26817	21DE18175
20	180	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-26820	21DE1820
22.5	180	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-26822	21DE18225
25	180	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-26825	21DE1825
27.5	180	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-26827	21DE18275
30	180	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-26830	21DE1830
35	180	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-26835	21DE1835
40	180	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-26840	21DE1840
45	180	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-26845	23DE1845
50	180	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-26850	23DE1850
55	180	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-26855	23DE1855
60	180	24	3 $\frac{3}{4}$ "	$\pm 10\%$	-26860	24DE1860
65	180	24	3 $\frac{3}{4}$ "	$\pm 10\%$	-26865	24DE1865
15	240	21	3"	$\pm 10\%$	-25035	21DD2415
17.5	240	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25040	21DD24175
20	240	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25045	21DD2420
22.5	240	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25050	21DD24225
25	240	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25055	23DD2425
27.5	240	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25060	23DD24275
30	240	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25065	23DD2430
35	240	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25070	23DD2435
40	240	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25075	23DD2440
45	240	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25080	24DD2445
50	240	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25085	24DD2450
55	240	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25090	24DD2455
60	240	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25095	24DD2460
15	330	21	3"	$\pm 10\%$	-25135	21FD3315
17.5	330	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25140	21FD33175
20	330	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25145	21FD3320
22.5	330	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25150	21FD33225

Cap. (MFD)	Vac. Volts	+ Base + Style	Height Inches	Cap. Tol.	DCI No. 114326-	Catalog Number
25	330	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25155	23FD3325
27.5	330	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25160	23FD33275
30	330	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25165	23FD3330
35	330	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25170	23FD3335
40	330	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25175	23FD3340
45	330	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25180	24FD3345
50	330	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25185	24FD3350
55	330	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25190	24FD3355
60	330	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25195	24FD3360
15	370	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25235	21FC3715
17.5	370	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25240	21FC37175
20	370	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25250	23FC3720
22.5	370	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25255	23FC37225
25	370	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25260	23FC3725
27.5	370	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25265	23FC37275
30	370	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25270	23FC3730
35	370	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25275	23FC3735
40	370	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25280	24FC3740
45	370	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25285	24FC3745
50	370	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25290	24FC3750
55	370	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25295	24FC3755
15	440	21	3 $\frac{3}{4}$ "	$\pm 10\%$	-25335	21FB4415
17.5	440	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25340	23FB44175
20	440	23	3 $\frac{3}{4}$ "	$\pm 10\%$	-25345	23FB4420
22.5	440	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25350	23FB44225
25	440	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25355	23FB4425
27.5	440	23	4 $\frac{3}{4}$ "	$\pm 10\%$	-25360	23FB44275
30	440	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25365	24FB4430
35	440	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25370	24FB4435
40	440	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25375	24FB4440
45	440	24	4 $\frac{3}{4}$ "	$\pm 10\%$	-25380	24FB4445

• NEW PRODUCT

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.



The PSU motor start capacitor is a dry electrolytic device that can be used to provide the torque necessary to start AC motors and in other intermittent AC applications. Cases are of moisture and oil resistant molded plastic. Equipped with two quick disconnect terminals. Mallory replacement motor start capacitors are designed in accordance with EIA RS-463, Type 2. May be mounted by means of PL plastic end cap and HB metal snap-in bracket or VR clamp bracket (order separately). Request bulletin 4-401 for complete technical data. For pricing, refer to price sheet No. 301. Replaces 3534/3535, 35F, AB.

HIGHLIGHTS

Capacitance Range—21 to 1536 μ F
 Voltage—110—330 VAC
 Operating Frequency—50—60 Hz
 Power Factor—10% Max.
 Temperature Range— -40°C, +65°C

AC MOTOR START CAPACITORS TYPE PSU

Cap. (MFD)	Vac Volts	*Case Code	DCI No. 114326-	Catalog Number
21-25	110/125	1	-21275	PSU2115
25-30	110/125	1	-21290	PSU2515
30-36	110/125	1	-21310	PSU3015
36-43	110/125	1	-21322	PSU3615
43-52	110/125	1	-21350	PSU4315
47-56	110/125	1	-54715	●PSU4715
53-64	110/125	1	-21375	PSU5315
64-77	110/125	1	-21395	PSU6415
72-86	110/125	1	-21410	PSU7215
88-106	110/125	1	-21465	PSU8815
108-130	110/125	1	-21495	PSU10815
124-149	110/125	1	-21535	PSU12415
130-156	110/125	1	-21555	PSU13015
145-174	110/125	1	-21605	PSU14515
161-193	110/125	1	-21625	PSU16115
189-227	110/125	1	-21656	PSU18915A
216-259	110/125	2	-21700	PSU21615
233-280	110/125	2	-21741	PSU23315A
243-292	110/125	2	-21756	PSU24315A
270-324	110/125	2	-21776	PSU27015A
324-389	110/125	3	-54720	PSU32415A
340-408	110/125	4	-21810	PSU34015
378-454	110/125	4	-21820	PSU37815
400-480	110/125	4	-21830	PSU40015
430-516	110/125	4	-21846	PSU43015A
460-552	110/125	4	-21856	PSU46015A
540-648	110/125	5	-54725	PSU54015B
590-708	110/125	5	-21901	PSU59015A
645-774	110/125	5	-64515	●PSU64515
708-850	110/125	5	-64815	●PSU70815
720-864	110/125	5	-64015	●PSU72015
800-960	110/125	5	-60015	●PSU80015
815-978	110/125	5	-61515	●PSU81515
829-995	110/125	5	-62915	PSU82915A
850-1020	110/125	5	-65015	●PSU85015
1000-1200	110/125	7	-21920	PSU100015A
1020-1224	110/125	7	-62015	●PSU102015
1175-1410	110/125	7	-67515	●PSU117515

Cap. (MFD)	Vac Volts	*Case Code	DCI No. 114326-	Catalog Number
1280-1536	110/125	7	-68015	●PSU128015
21-25	165	1	-21287	PSU2165A
25-30	165	1	-21303	PSU2565A
30-36	165	1	-21316	PSU3065A
36-43	165	1	-21328	PSU3665A
43-52	165	1	-21363	PSU4365A
47-56	165	1	-21359	PSU4765A
53-64	165	1	-21888	PSU5365A
64-77	165	1	-21408	PSU6465A
72-86	165	1	-21423	PSU7265A
88-106	165	2	-68865	●PSU8865
108-130	165	2	-60865	●PSU10865
124-149	165	2	-62465	●PSU12465
130-156	165	2	-63065	●PSU13065
145-174	165	2	-64565	●PSU14565
161-193	165	2	-66165	●PSU16165
189-227	165	2	-68965	PSU18965B
216-259	165	4	-21726	PSU21665A
233-280	165	3	-63365	●PSU23365
243-292	165	3	-64365	●PSU24365
270-324	165	3	-67065	PSU27065A
324-389	165	5	-63465	●PSU32465
340-408	165	5	-64065	●PSU34065
378-454	165	5	-67865	●PSU37865
400-480	165	5	-21838	PSU40065
430-516	165	5	-63565	●PSU43065
460-552	165	5	-66665	●PSU46065
540-648	165	7	-64465	●PSU54065
21-25	220/250	1	-62135	●PSU2135
25-30	220/250	1	-21295	PSU2535
30-36	220/250	1	-21313	●PSU3035
36-43	220/250	1	-63635	●PSU3635
43-52	220/250	2	-64335	PSU4335B
47-56	220/250	2	-64735	●PSU4735
53-64	220/250	2	-65335	●PSU5335
64-77	220/250	2	-66435	●PSU6435
72-86	220/250	4	-67235	●PSU7235
88-106	220/250	4	-21475	PSU8835

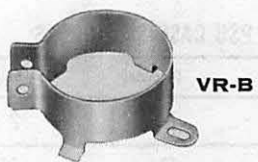
*** PSU CASE SIZE CODES**

Case Number	Diameter	Height
0	1 $\frac{1}{16}$	2
1	1 $\frac{1}{16}$	2 $\frac{3}{4}$
†2	1 $\frac{1}{16}$	3 $\frac{3}{8}$
3	1 $\frac{1}{16}$	4 $\frac{3}{8}$
†4	1 $\frac{3}{16}$	3 $\frac{3}{8}$
†5	1 $\frac{3}{16}$	4 $\frac{3}{8}$
6	2 $\frac{1}{16}$	3 $\frac{3}{8}$
†7	2 $\frac{1}{16}$	4 $\frac{3}{8}$
8	2 $\frac{9}{16}$	4 $\frac{3}{8}$

†NEMA Standard Sizes.

Cap. (MFD)	Vac Volts	*Case Code	DCI No. 114326-	Catalog Number
108-130	220/250	4	-60835	PSU10835A
124-149	220/250	5	-62435	●PSU12435
130-156	220/250	5	-63035	●PSU13035
145-174	220/250	5	-64535	●PSU14535
161-193	220/250	7	-66135	PSU16135A
189-227	220/250	7	-68935	PSU18935A
216-259	220/250	7	-61635	PSU21635A
233-280	220/250	7	-21751	PSU23335A
243-292	220/250	7	-64335	●PSU24335
270-324	220/250	7	-67035	PSU27035A
21-25	330	1	-21280	●PSU2130
25-30	330	2	-62530	●PSU2530
30-36	330	2	-63030	●PSU3030
36-43	330	2	-21319	PSU3630
43-52	330	2	-64330	●PSU4330
47-56	330	4	-64730	●PSU4730
53-64	330	4	-21385	PSU5330
64-77	330	4	-66430	●PSU6430
72-86	330	5	-67230	PSU7230B
88-106	330	5	-21471	PSU8830A
108-130	330	7	-60830	PSU10830B
124-149	330	8	-21545	PSU12430
124-149	330	7	-62430	●PSU12430A
130-156	330	7	-63330	●PSU13030
145-174	330	7	-21621	PSU14530A
161-193	330	8	-21640	PSU16130
189-227	330	8	-21665	PSU18930
216-259	330	8	-21715	PSU21630

Consult your local Mallory distributor for price information.



CYLINDRICAL CAPACITOR MOUNTING CLAMP, TYPE VR

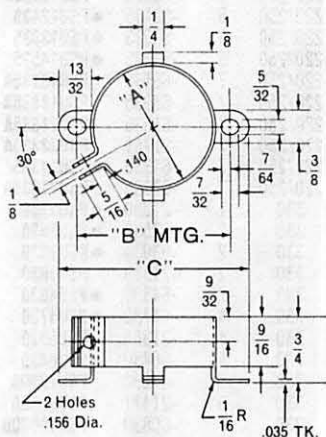
The Mallory VR mounting clamps can be used to mount any cylindrical capacitor with a 1 3/8" to 3" diameter that is to be mounted in a vertical position. The standard finish is .0001" (nominal) cadmium plating. Use for mounting CG/CGS types, PSU/HC/NP types, RPN/MPD/MPF types.

Fig.	Description	A	Dimensions		Diameter of Part to be Mounted	Catalog Number			
			B	C		Without Screw & Nut	+DCI Number 114326—	Unassembled Screw & Nut Incl.	Assembled With Nut & Screw
1	Vert. Mtg. Clamp	1"	1 1/16"	1 7/8"	1" - 1 1/16"	VR1B	-22125	VR1	VR1A
1	Vert. Mtg. Clamp	1 3/8"	1 29/32"	2 1/32"	1 3/8" - 1 7/16"	VR3B	-22130	VR3	VR3A
1	Vert. Mtg. Clamp	1 1/2"	1 15/16"	2 11/32"	1 1/2" - 1 9/16"	VR4B	-22135	VR4	VR4A
2	Vert. Mtg. Clamp	1 3/4"	2 1/4"	2 9/16"	1 3/4" - 1 13/16"	VR6B	-22140	VR6	VR6A
2	Vert. Mtg. Clamp	2"	2 1/2"	2 13/16"	2" - 2 1/16"	VR8B	-22145	VR8	VR8A
2	Vert. Mtg. Clamp	2 1/2"	3"	3 5/16"	2 1/2" - 2 9/16"	VR10B	-22150	VR10	VR10A
3	Vert. Mtg. Clamp	3"	3 1/16"	3 13/16"	3" - 3 1/8"	VR12B	-22155	VR12	VR12A
—	Vert. Mtg. Clamp Screw	—	—	—	—	VRSCREW	—	—	—
—	Vert. Mtg. Clamp Nut	—	—	—	—	VRNUT	—	—	—

† — DCI — Distribution Codes, Inc.

*Dimensions shown are nominal as manufactured. The assembled dimensions may vary slightly from these values depending upon the use of uninsulated can or the particular type of insulating sleeve selected.

FIGURE 1
VR 1, 3 & 4



(INCHES)
FIGURE 2
VR 6, 8 & 10

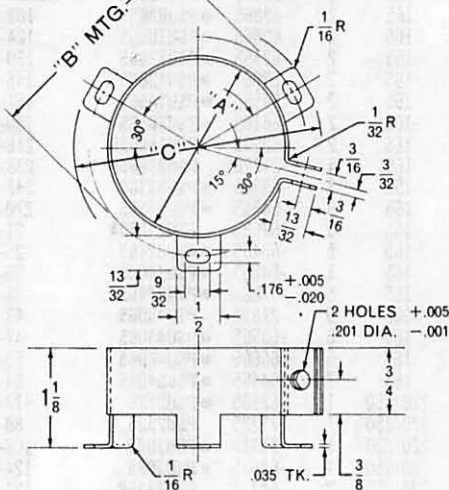
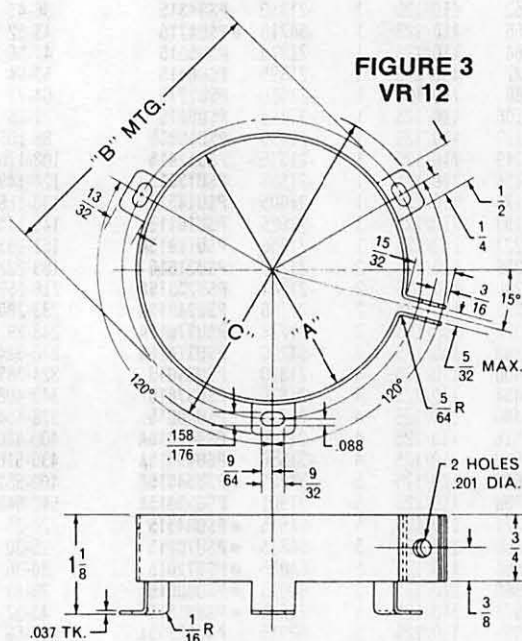


FIGURE 3
VR 12



MOTOR RUN CAPACITOR HARDWARE

This clamp has been designed for use with the Mallory line of Motor Run Capacitors types, OPN/OPRN.



Use with Base Style	DCI Number 114326—	Catalog Number
31 (2 5/32" x 2 7/32")	-20310	OB1
32 (1 9/16" x 2 7/32")	-20315	OB2
38 (1 31/32" x 3 21/32")	-20320	OB3
37 (1 31/32" x 2 29/32")	-20330	OB4

Neoprene terminal insulator for use with single section OPN/OPRN capacitors. Material is classified 94V-1 when tested per UL94.



Use With Base Style	DCI Number 114326—	Catalog Number
31, 32, 37, 38	-20370	OC1

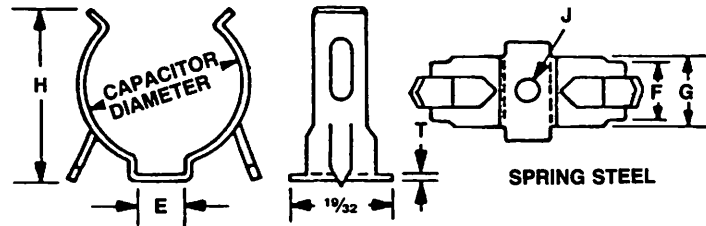
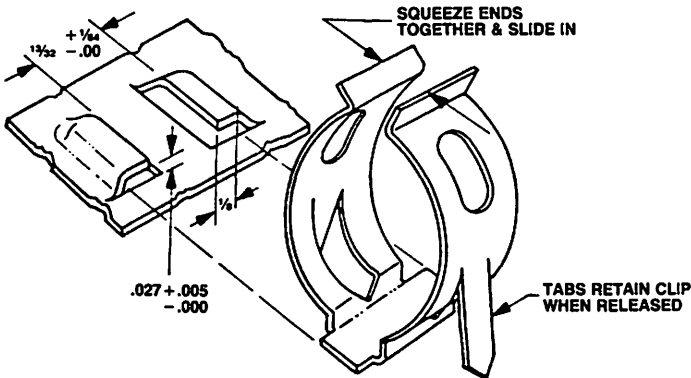
Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

These clips though designed for use with capacitors have varied applications to retain many cylindrical components. They are used extensively in the electrical and electronic industries to hold spindles, condensers, capacitors, tubes, rods and conduit. Clips have a phosphate and oil finish.

Design Size	Component Diameter		E	F	G	H	J ±.005 -.000	T	Catalog Number
	Minimum	Maximum							
.38	.36	.44	.25	.34		.47	.135	.016	TH13
.50	.47	.56	.25	.34		.62	.135	.016	TH15
.63	.61	.69	.31	.34		.72	.135	.016	TH17
.75	.72	.78	.31	.34		.89	.135	.020	TH19
.88	.85	.94	.31	.34		1.00	.135	.020	TH21
1.00	.96	1.03	.31	.34		1.06	.135	.020	TH23
1.38	1.34	1.50	.31	.59		1.50	.135	.020	TH25



CYLINDRICAL CAPACITOR MOUNTING CLAMP, TYPE RB

This clamp has a galvanized finish and is designed for use with the round base style motor run capacitor, types MPD/MPF and RPN.

Fig.	Description	Dimensions					DCI Number 114326-	Catalog Number
		A	B	C	D	R		
4	Vert. Mtg. Clamp	1 1/4"	2 1/2"	2 7/8"	1.656"	3/8"	70005	●RB175
	Vert. Mtg. Clamp	2"	2 3/4"	3 1/8"	1.906"	1"	70025	●RB200
	Vert. Mtg. Clamp	2 1/2"	3 1/4"	3 5/8"	2.406"	1 1/4"	70040	●RB250
5	Vert. Mtg. Clamp	1 3/4"	2 1/2"	3 1/4"	1.656"	3/8"	70010	●RB175A
	Vert. Mtg. Clamp	2"	2 3/4"	3 1/2"	1.906"	1"	70030	●RB200A
	Vert. Mtg. Clamp	2 1/2"	3 1/4"	4"	2.406"	1 1/4"	70035	●RB250A

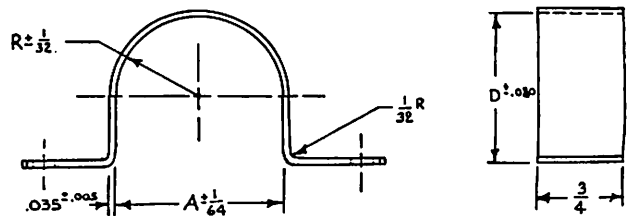
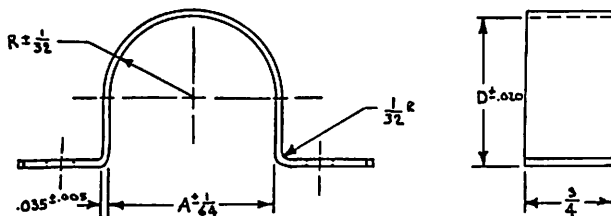
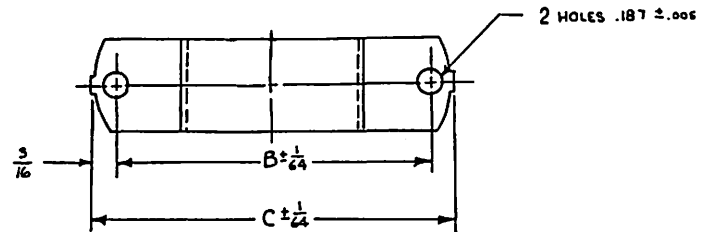
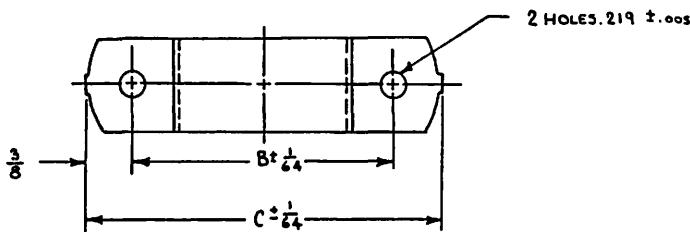


FIG. 4

FIG. 5

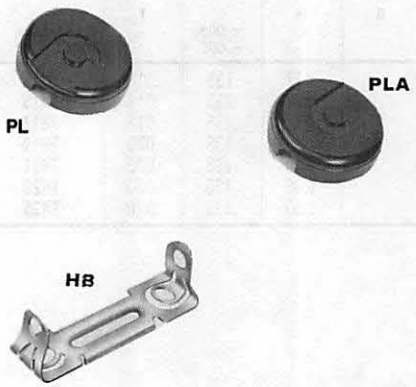
Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

MOTOR START CAPACITOR HARDWARE

These hardware items are designed for mounting the motor starting capacitors type PSU.



Description	Use with PSU Case Diameter	DCI Number 114326-	Catalog Number
Plastic end cap-wire in	1 $\frac{1}{16}$ "	-21030	PL3
Plastic end cap-wire out	1 $\frac{1}{16}$ "	-21050	PLA3
Plastic end cap-wire in	1 $\frac{3}{16}$ "	-21035	PL6
Plastic end cap-wire out	1 $\frac{3}{16}$ "	-21055	PLA6
Plastic end cap-wire in	2 $\frac{1}{16}$ "	-21040	PL8
Plastic end cap-wire out	2 $\frac{1}{16}$ "	-21060	PLA8
Plastic end cap-wire in	2 $\frac{9}{16}$ "	-21045	PL10
Plastic end cap-wire out	2 $\frac{9}{16}$ "	-21065	PLA10
Horizontal Mtg. bracket	*3 $\frac{3}{64}$ "	-20200	HB2
Horizontal Mtg. bracket	*3 $\frac{21}{32}$ "	-20205	HB4
Horizontal Mtg. bracket	*4 $\frac{21}{32}$ "	-20210	HB8

*Capacitor length

FP series capacitors are available in two diameters: 1", and 1 $\frac{3}{8}$ ". Lengths and mounting hardware are shown below. Chassis punch details are shown to the right. Use BP (phenolic) or MP (metal) plates where direct chassis layout is not desired.

Capacitor Dimensions D x L (inches)	Catalog Number
1 x 1 $\frac{1}{2}$	CE2
1 x 1 $\frac{3}{4}$	CE13
1 x 2	CE3
1 x 2 $\frac{1}{2}$	CE7
1 x 3	CE4
1 x 3 $\frac{1}{2}$	CE11
1 x 4	CE8
1 $\frac{3}{4}$ x 2	CE5
1 $\frac{3}{4}$ x 2 $\frac{1}{2}$	CE9
1 $\frac{3}{4}$ x 3	CE6
1 $\frac{3}{4}$ x 3 $\frac{1}{2}$	CE12
1 $\frac{3}{4}$ x 4	CE10

1" DIA.	1 $\frac{3}{8}$ " DIA.
	<p>RECOMMENDED CHASSIS CUT OUT MINIMUM CHASSIS THICKNESS ± .025 (.64)</p>
<p>RECOMMENDED CHASSIS LAYOUT AS SEEN FROM MOUNTING SIDE</p>	
<p>PUNCH MAIN CHASSIS HOLE 1$\frac{1}{4}$" (38.1) TO 1$\frac{1}{4}$" (31.75) DIA.</p>	<p>PUNCH MAIN CHASSIS HOLE 1$\frac{1}{4}$" (34.9) DIA.</p>
<p>TYPE MP4 TYPE BP4</p>	<p>TYPE MP6 TYPE BP6</p>

INSULATING SLEEVES — Closed end cardboard tubes used to insulate metal can where shock potential is present. Tubes add $\frac{3}{32}$ " to can base diameter and $\frac{3}{16}$ " to overall height.

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

TDC ORDERING INFORMATION

CATALOG NUMBER TDC 33 5 M 006 N L E

Mallory Type Number: _____

Capacitance in Picofarad: _____
1st two digits are significant figures.

Number of Zeros following Significant Figures: _____

Tolerance: _____
M = ±20%
K = ±10%
J = ±5%

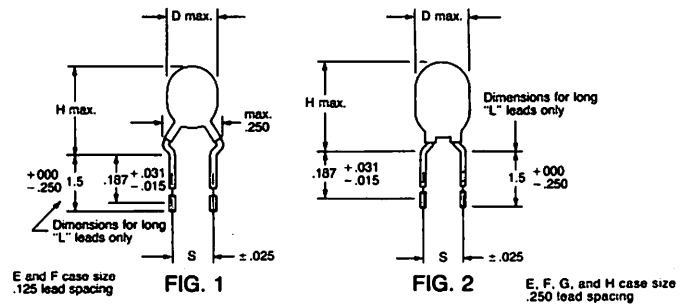
Voltage (Working) DC at 85°C: _____

Lead spacing: _____
N = .125 — SEE FIG. 1
W = .250 — SEE FIG. 2

Leads: _____
S = Short leads .187" nominal length
L = Long leads 1.50" maximum length

Case: _____

TYPE TDC OUTLINE DIMENSIONS



Case Code	Diameter (D)		Height (H)		Leads					
	In.	(mm)	In.	(mm)	Space (s)		Case Code	Diameter		Awg.
				In.	(mm)	In.		(mm)	In.		(mm)
E	.175	(4.45)	.350	(8.89)	.125 (3.17)	.250 (6.35)	N	.020	(.51)	#24
F	.250	(6.35)	.500	(12.7)	.125 (3.17)	.250 (6.35)	W	.025	(.64)	#22
G	.350	(8.89)	.650	(16.51)	.250 (6.35)		W	.025	(.64)	#22
H	.400	(10.16)	.750	(19.05)	.250 (6.35)		W	.025	(.64)	#22

TDL ORDERING INFORMATION

CATALOG NUMBER TDL 33 5 M 006 S 1 A

Mallory Type Number: _____

Capacitance in Picofarad: _____
1st two digits are significant figures

Number of Zeros following Significant Figures: _____

Tolerance: _____
Standard "M" = ±20%
Non-Standard "K" = ±10%
Special Order "J" = ±5%

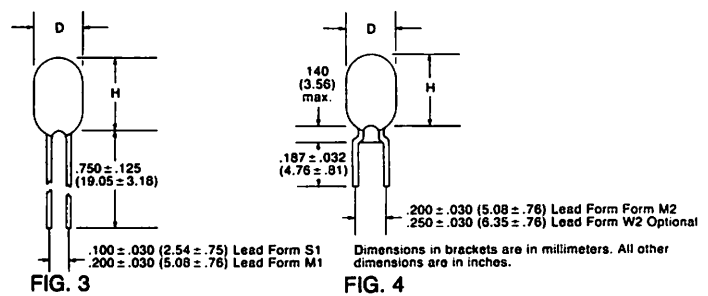
Rated DC Voltage at 85°C: _____
(6.3 Volt use 006)

Lead Spacing: _____
S = .100" — SEE FIG. 3 ONLY
M = .200" — SEE FIG. 3 OR 4
W = .250" Optional — SEE FIG. 4 ONLY

Leads: _____
1 = Straight Leads .875" Maximum (Length)
2 = Standoff Leads

Case: _____

TYPE TDL OUTLINE DIMENSIONS



Case Code	Available Lead Forms	Diameter Max.		Height Max.	
		In.	(mm)	In.	(mm)
A	S1, M2, W2	.18	4.57	.28	7.11
B	S1, M2, W2	.20	5.08	.30	7.62
C	S1, M2, W2	.26	6.60	.36	9.14
D	S1, M2, W2	.34	8.64	.40	10.16
E	M1	.40	10.16	.56	14.22
F	M1	.44	11.18	.68	17.27

NOTE: 1. Lead spacing is measured within .050" (1.27 mm) from lead egress or bottom of standoff crimp.
2. Lead diameter is .020" (.51) for all lead forms.

TDM ORDERING INFORMATION

CATALOG NUMBER TDM 33 5 M 006 L 1

Mallory Type Number: _____

Capacitance in Picofarad: _____
1st two digits are significant figures.

Number of Zeros following Significant Figures: _____

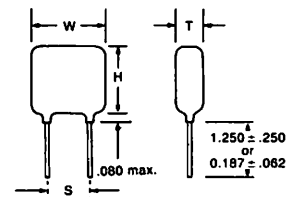
Tolerance: _____
M = ±20%
K = ±10%
J = ±5%

Voltage (working) DC at 85°C: _____

Leads: _____
S = Short leads .187" nominal length
L = Long leads 1.50" maximum length

Case: _____

TYPE TDM OUTLINE DIMENSIONS



Case Code	Height (H)		Width (W)		Thick (T)	Leads			
	In.	(mm)	In.	(mm)		Space (s)		Diameter	Awg.
				In.	(mm)	In.	(mm)		
1	.275	(6.98)	.275	(6.98)	.180 (4.57)	.125 (3.17)	.200 (5.08)	.020 (.51)	#24
2	.335	(8.50)	.325	(8.25)	.210 (5.33)	.200 (5.08)	.250 (6.35)	.020 (.51)	#24
3	.375	(9.52)	.400	(10.16)	.225 (5.71)	.250 (6.35)	.250 (6.35)	.020 (.51)	#24
4	.400	(10.16)	.400	(10.16)	.250 (6.35)	.250 (6.35)	.250 (6.35)	.020 (.51)	#24
5	.460	(11.68)	.485	(12.31)	.325 (8.25)	.250 (6.35)	.250 (6.35)	.020 (.51)	#24
6	.560	(14.22)	.585	(14.85)	.325 (8.25)	.250 (6.35)	.250 (6.35)	.020 (.51)	#24

Consult your local Mallory distributor for price information.

Type TDC-TDL-TDM Epoxy Dipped Solid Tantalum Capacitors



Type TDC-TDL-TDM capacitors offer the long life electrical stability characteristics of solid tantalum at low cost. The tough epoxy coating provides uniform lead spacing and protection against mechanical damage and moisture. These capacitors are ideal for industrial and consumer applications where premium performance, minimum size, and low cost are essential. Operating Temp.: -55°C to +85°C.

The TDC dip-coated solid tantalum capacitor offers high CV product in 4 miniature case sizes with radial stand-off lead spacing of .125 inch and .250 inch. Replaces 196D, T368 and DNS. For prices, refer to price sheet No. 359.

The TDL dip-coated solid tantalum capacitor is available in 6 low height case sizes with radial straight lead spacing of .100 inch and .200 inch. Replaces 199D. For prices, refer to price sheet No. 355.

The TDM is a low profile dip-coated rectangular thin body shaped solid tantalum capacitor available in 6 case sizes. Radial lead spacing is .125 inch and .200 inch in the smaller case sizes with .250 inch lead spacing in the larger case sizes. Replaces KNS. For prices refer to price sheet No. 356.

For additional information on TDC, TDL and TDM request bulletin 4-810.

KEY FEATURES

- Tough epoxy conformal coating
- Low cost
- Miniature size, low profile
- High capacitance per Case Size.
- Low DCL, low ESR, low impedance
- Long life

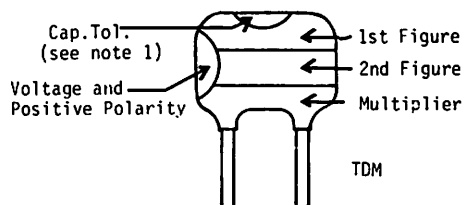
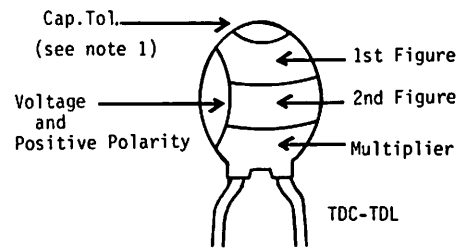
APPLICATIONS

Bypass, Coupling, Timing, Filter circuits in consumer and industrial electronic equipment.

Type TDC		Type TDL		Type TDM	
Capacity μF	Case Code	Catalog Number	Case Code	Catalog Number	Case Code
6 — 6.3 WVDC; 8 VDC SURGE @ 85°C					
4.7	E	TDC475*006†\$E	—	—	—
5.6	E	TDC565*006†\$E	—	—	—
6.8	E	TDC685*006†\$E	B	TDL685*006†\$B	—
8.2	E	TDC825*006†\$E	—	—	—
10.0	E	TDC106*006†\$E	B	TDL106*006†\$B	—
12.0	E	TDC126*006†\$E	—	—	—
15.0	F	TDC156*006†\$F	B	TDL156*006†\$B	1 TDM156*006\$1
18.0	F	TDC186*006†\$F	—	—	1 TDM186*006\$1
22.0	F	TDC226*006†\$F	C	TDL226*006†\$C	1 TDM226*006\$1
27.0	F	TDC276*006†\$F	—	—	1 TDM276*006\$1
33.0	F	TDC336*006†\$F	C	TDL336*006†\$C	2 TDM336*006\$2
39.0	F	TDC396*006†\$F	—	—	2 TDM396*006\$2
47.0	F	TDC476*006†\$F	D	TDL476*006†\$D	2 TDM476*006\$2
56.0	F	TDC566*006†\$F	—	—	3 TDM566*006\$3
68.0	F	TDC686*006†\$F	D	TDL686*006†\$D	3 TDM686*006\$3
82.0	F	TDC826*006†\$F	—	—	3 TDM826*006\$3
100.0	F	TDC107*006†\$F	D	TDL107*006†\$D	4 TDM107*006\$4
120.0	G	TDC127*006W\$G	—	—	4 TDM127*006\$4
150.0	G	TDC157*006W\$G	E	TDL157*006M1E	5 TDM157*006\$5
180.0	G	TDC187*006W\$G	—	—	5 TDM187*006\$5
220.0	G	TDC227*006W\$G	E	TDL227*006M1E	5 TDM227*006\$5
270.0	G	TDC277*006W\$G	—	—	5 TDM277*006\$5
330.0	G	TDC337*006W\$G	F	TDL337*006M1F	5 TDM337*006\$5

Type TDC		Type TDL		Type TDM	
Capacity μF	Case Code	Catalog Number	Case Code	Catalog Number	Case Code
10 WVDC; 13 VDC SURGE @ 85°C					
2.2	—	—	A	TDL225*010†\$A	—
3.3	E	TDC335*010†\$E	A	TDL335*010†\$A	—
3.9	E	TDC395*010†\$E	—	—	—
4.7	E	TDC475*010†\$E	A	TDL475*010†\$A	—
5.6	E	TDC565*010†\$E	—	—	—
6.8	E	TDC685*010†\$E	B	TDL685*010†\$B	—
8.2	E	TDC825*010†\$E	—	—	—
10.0	F	TDC106*010†\$F	B	TDL106*010†\$B	—
12.0	F	TDC126*010†\$F	—	—	1 TDM126*010\$1
15.0	F	TDC156*010†\$F	C	TDL156*010†\$C	1 TDM156*010\$1
18.0	F	TDC186*010†\$F	—	—	2 TDM186*010\$2
22.0	F	TDC226*010†\$F	C	TDL226*010†\$C	2 TDM226*010\$2
27.0	F	TDC276*010†\$F	—	—	2 TDM276*010\$2
33.0	F	TDC336*010†\$F	D	TDL336*010†\$D	3 TDM336*010\$3
39.0	F	TDC396*010†\$F	—	—	3 TDM396*010\$3
47.0	F	TDC476*010†\$F	D	TDL476*010†\$D	3 TDM476*010\$3
56.0	F	TDC566*010†\$F	—	—	4 TDM566*010\$4
68.0	F	TDC686*010†\$F	D	TDL686*010†\$D	4 TDM686*010\$4
82.0	G	TDC826*010W\$G	—	—	5 TDM826*010\$5
100.0	G	TDC107*010W\$G	E	TDL107*010M1E	5 TDM107*010\$5
120.0	G	TDC127*010W\$G	—	—	5 TDM127*010\$5
150.0	G	TDC157*010W\$G	E	TDL157*010M1E	5 TDM157*010\$5
180.0	G	TDC187*010W\$G	—	—	5 TDM187*010\$5
220.0	G	TDC227*010W\$G	F	TDL227*010M1F	5 TDM227*010\$5
270.0	H	TDC277*010W\$H	—	—	—
330.0	H	TDC337*010W\$H	—	—	—

Type TDC		Type TDL		Type TDM	
Capacity μF	Case Code	Catalog Number	Case Code	Catalog Number	Case Code
15-16 WVDC; 20 VDC SURGE @ 85°C					
1.5	—	—	A	TDL155*016†\$A	—
2.2	—	—	A	TDL225*016†\$A	—
2.7	E	TDC275*015†\$E	—	—	—
3.3	E	TDC335*015†\$E	B	TDL335*016†\$B	—
3.9	E	TDC395*015†\$E	—	—	—
4.7	E	TDC475*015†\$E	B	TDL475*016†\$B	—
6.8	E	TDC685*015†\$E	B	TDL685*016†\$B	—
8.2	F	TDC825*015†\$F	—	—	1 TDM825*015\$1
10.0	F	TDC106*015†\$F	C	TDL106*016†\$C	1 TDM106*015\$1
12.0	F	TDC126*015†\$F	—	—	2 TDM126*015\$2
15.0	F	TDC156*015†\$F	C	TDL156*016†\$C	2 TDM156*015\$2
18.0	F	TDC186*015†\$F	—	—	3 TDM186*015\$3
22.0	F	TDC226*015†\$F	D	TDL226*016†\$D	3 TDM226*015\$3
27.0	F	TDC276*015†\$F	—	—	3 TDM276*015\$3
33.0	F	TDC336*015†\$F	D	TDL336*016†\$D	3 TDM336*015\$3
39.0	F	TDC396*015†\$F	—	—	4 TDM396*015\$4
47.0	G	TDC476*015W\$G	E	TDL476*016M1E	4 TDM476*015\$4
56.0	G	TDC566*015W\$G	—	—	5 TDM566*015\$5
68.0	G	TDC686*015W\$G	E	TDL686*016M1E	5 TDM686*015\$5
82.0	G	TDC826*015W\$G	—	—	5 TDM826*015\$5
100.0	G	TDC107*015W\$G	F	TDL107*016M1F	5 TDM107*015\$5
120.0	G	TDC127*015W\$G	—	—	6 TDM127*015\$6
150.0	G	TDC157*015W\$G	F	TDL157*016M1F	6 TDM157*015\$6
180.0	G	TDC187*015W\$G	—	—	—
220.0	H	TDC227*015W\$H	—	—	—
270.0	H	TDC277*015W\$H	—	—	—
330.0	H	TDC337*015W\$H	—	—	—



note 1 ±20% tolerance - no dot
±10% tolerance - silver dot
± 5% tolerance - gold dot

* = Tolerance:
Insert proper letter for tolerance desired i.e. M = ±20%, K = ±10%, J = ±5%

† = Lead Spacing:
Insert proper letter. For TDC: N = .125", W = .250"; For TDL: S = .100", M = .200", W = .250" optional

\$ = Lead Configuration and Length:
Insert proper number or letter as follows:
For TDL: 1 = straight leads .875" max. length, 2 = standoff leads. For TDC and TDM: S = short leads .187" nominal, L = long leads 1.50" maximum length.

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

Epoxy Dipped Solid Tantalum Capacitors Type TDC-TDL-TDM

Type TDC		Type TDL		Type TDM	
Capacity μF	Case Code	Case Code	Catalog Number	Case Code	Catalog Number
20 WVDC; 26 VDC SURGE @ 85°C					
2.2	E	—	—	—	—
2.7	E	—	—	—	—
3.3	E	—	—	—	—
3.9	E	—	—	—	—
4.7	E	—	—	1	TDM475*020\$1
5.6	F	—	—	1	TDM565*020\$1
6.8	F	—	—	1	TDM685*020\$1
8.2	F	—	—	1	TDM825*020\$1
10.0	F	—	—	2	TDM106*020\$2
12.0	F	—	—	2	TDM126*020\$2
15.0	F	—	—	3	TDM156*020\$3
18.0	F	—	—	3	TDM186*020\$3
22.0	F	—	—	3	TDM226*020\$3
27.0	F	—	—	3	TDM276*020\$3
33.0	G	—	—	4	TDM336*020\$4
39.0	G	—	—	4	TDM396*020\$4
47.0	G	—	—	5	TDM476*020\$5
56.0	G	—	—	5	TDM566*020\$5
68.0	G	—	—	5	TDM686*020\$5
82.0	G	—	—	5	TDM826*020\$5
100.0	G	—	—	6	TDM107*020\$6
120.0	G	—	—	6	TDM127*020\$6
150.0	H	—	—	—	—
180.0	H	—	—	—	—

Type TDC		Type TDL		Type TDM	
Capacity μF	Case Code	Case Code	Catalog Number	Case Code	Catalog Number
25 WVDC; 32 VDC SURGE @ 85°C					
1.0	—	A	TDL105*025\$A	—	—
1.5	—	A	TDL155*025\$A	—	—
1.8	E	—	—	—	—
2.2	E	—	—	—	—
3.3	E	B	TDL225*025\$B	1	TDM335*025\$1
3.9	E	B	TDL335*025\$B	1	TDM395*025\$1
4.7	F	—	—	1	TDM475*025\$1
5.6	F	—	—	1	TDM565*025\$1
6.8	F	C	TDL475*025\$C	1	TDM685*025\$1
8.2	F	C	TDL685*025\$C	2	TDM825*025\$2
10.0	F	—	—	2	TDM106*025\$2
12.0	F	C	TDL106*025\$C	3	TDM126*025\$3
15.0	F	—	—	3	TDM156*025\$3
18.0	F	—	—	3	TDM186*025\$3
22.0	F	D	TDL226*025\$D	3	TDM226*025\$3
27.0	G	—	—	4	TDM276*025\$4
33.0	G	E	TDL336*025M1E	4	TDM336*025\$4
39.0	G	—	—	5	TDM396*025\$5
47.0	G	E	TDL476*025M1E	5	TDM476*025\$5
56.0	G	—	—	5	TDM566*025\$5
68.0	G	F	TDL686*025M1F	5	TDM686*025\$5
82.0	G	—	—	6	TDM826*025\$6
100.0	G	—	—	6	TDM107*025\$6
120.0	H	—	—	—	—
150.0	H	—	—	—	—

MARKING

Color Code System				
Color	+85° C Voltage	Capacitance in PicoFarads		Multiplier
		1st Figure	2nd Figure	
Black	4	0	0	—
Brown	6	1	1	—
Red	10	2	2	—
Orange	15	3	3	—
Yellow	20	4	4	x 10 ⁴
Green	25	5	5	x 10 ⁵
Blue	35	6	6	x 10 ⁶
Violet	50	7	7	x 10 ⁷
Gray	—	8	8	—
White	—	9	9	—

Type TDC		Type TDL		Type TDM	
Capacity μF	Case Code	Case Code	Catalog Number	Case Code	Catalog Number
35 WVDC; 46 VDC SURGE @ 85°C					
.10	E	—	—	—	—
.12	E	—	—	—	—
.15	E	—	—	—	—
.18	E	—	—	—	—
.22	E	—	—	1	TDL104*035\$A
.27	E	—	—	1	TDL154*035\$A
.33	E	—	—	1	TDL224*035\$A
.39	E	—	—	1	TDL334*035\$A
.47	E	—	—	1	TDL474*035\$A
.56	E	—	—	1	TDL684*035\$A
.68	E	—	—	1	TDL824*035\$A
.82	E	—	—	1	TDL105*035\$B
1.0	E	—	—	1	TDL125*035\$E
1.2	E	—	—	1	TDL155*035\$E
1.5	E	—	—	1	TDL185*035\$E
1.8	E	—	—	1	TDL225*035\$E
2.2	E	—	—	1	TDL275*035\$E
2.7	F	—	—	1	TDL335*035\$E
3.3	F	—	—	1	TDL395*035\$E
3.9	F	—	—	1	TDL475*035\$E
4.7	F	—	—	1	TDL565*035\$E
5.6	F	—	—	1	TDL685*035\$E
6.8	F	—	—	1	TDL825*035\$E
8.2	F	—	—	1	TDL106*035\$E
10.0	F	—	—	1	TDL156*035\$E
12.0	F	—	—	1	TDL186*035\$E
15.0	F	—	—	1	TDL226*035\$E
18.0	F	—	—	1	TDL336*035\$E
22.0	G	—	—	1	TDL396*035\$E
27.0	G	—	—	1	TDL476*035\$E
33.0	G	—	—	1	TDL566*035\$E
39.0	G	—	—	1	TDL686*035\$E
47.0	G	—	—	1	—
56.0	H	—	—	1	—
68.0	H	—	—	1	—

Type TDC		Type TDL		Type TDM	
Capacity μF	Case Code	Case Code	Catalog Number	Case Code	Catalog Number
50 WVDC; 65 VDC SURGE @ 85°C					
.10	E	—	—	—	—
.12	E	—	—	—	—
.15	E	—	—	—	—
.18	E	—	—	—	—
.22	E	—	—	1	TDL104*050\$A
.27	E	—	—	1	TDL154*050\$A
.33	E	—	—	1	TDL224*050\$A
.39	E	—	—	1	TDL334*050\$A
.47	E	—	—	1	TDL474*050\$A
.56	E	—	—	1	TDL684*050\$A
.68	E	—	—	1	TDL824*050\$A
.82	E	—	—	1	TDL105*050\$C
1.0	E	—	—	1	TDL125*050\$E
1.2	E	—	—	1	TDL155*050\$E
1.5	E	—	—	1	TDL185*050\$E
1.8	F	—	—	1	TDL225*050\$E
2.2	F	—	—	1	TDL275*050\$E
2.7	F	—	—	1	TDL335*050\$E
3.3	F	—	—	1	TDL395*050\$E
3.9	F	—	—	1	TDL475*050\$E
4.7	F	—	—	1	TDL565*050\$E
5.6	F	—	—	1	TDL685*050\$E
6.8	F	—	—	1	TDL825*050\$E
8.2	F	—	—	1	TDL106*050\$E
10.0	G	—	—	1	TDL156*050\$E
12.0	G	—	—	1	TDL186*050\$E
15.0	G	—	—	1	TDL226*050\$E
18.0	G	—	—	1	TDL336*050\$E
22.0	G	—	—	1	TDL396*050\$E
27.0	G	—	—	1	TDL476*050\$E
33.0	H	—	—	1	—

* = Tolerance: Insert proper letter for tolerance desired i.e. M = ±20%, K = ±10%, J = ±5%

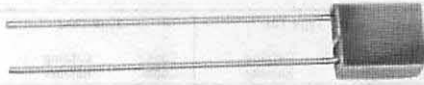
† = Lead Spacing: Insert proper letter. For TDC: N = .125", W = .250"; For TDL: S = .100", M = .200", W = .250" optional

\$ = Lead Configuration and Length: Insert proper number or letter as follows:

For TDL: 1 = straight leads .875" max. length, 2 = standoff leads. For TDC and TDM: S = short leads .187" nominal, L = long leads 1.50" maximum length.

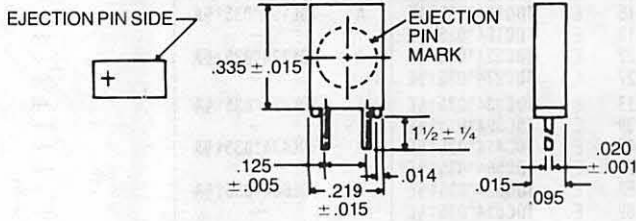
Consult your local Mallory distributor for price information.

Type TIM Molded Solid Tantalum Capacitors

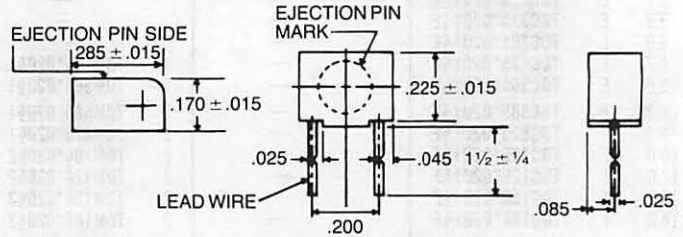


Type TIM solid electrolyte tantalum capacitors are fully molded in a rectangular epoxy case. Radial leads are precisely positioned to provide easy mounting on printed circuit boards. Electrical and environmental performance fits the needs of computer and industrial users. Four case sizes are available. Operating Temperature: -55°C to $+85^{\circ}\text{C}$, (to $+125^{\circ}\text{C}$ with proper voltage derating). Replaces T330, PNS. Request bulletin 4-806 for complete technical data. For prices, request price sheet No. 358.

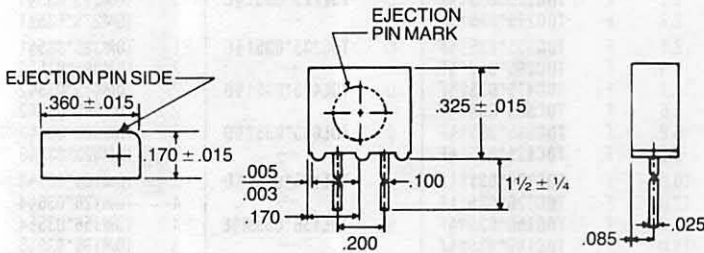
TIM CASE CODE W



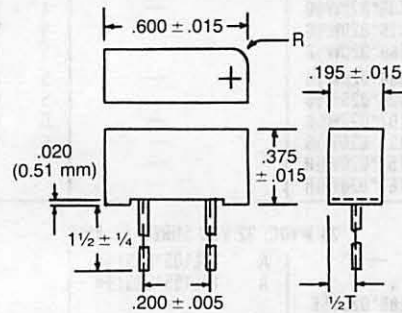
TIM CASE CODE X



TIM CASE CODE Y



TIM CASE CODE Z



Mfd	Case Code	Catalog Number
6 WVDC		
1.0	X	TIM105*006POX
1.2	X	TIM125*006POX
1.5	X	TIM155*006POX
1.8	X	TIM185*006POX
2.2	X	TIM225*006POX
2.7	X	TIM275*006POX
3.3	X	TIM335*006POX
3.9	X	TIM395*006POX
4.7	X	TIM475*006POX
5.6	X	TIM565*006POX
6.8	X	TIM685*006POX
8.2	X	TIM825*006POX
10	W	TIM106*006POW
10	X	TIM106*006POX
15	X	TIM156*006POX
22	X	TIM226*006POX
27	X	●TIM276*006POX
27	Y	TIM276*006POY
33	X	TIM336*006POX
33	Y	TIM336*006POY
39	X	TIM396*006POX
39	Y	●TIM396*006POY
47	Y	TIM476*006POY
56	Y	TIM566*006POY
68	Y	TIM686*006POY
82	Y	TIM826*006POY
100	Y	●TIM107*006POY
220	Z	●TIM227*006POZ
270	Z	●TIM277*006POZ
330	Z	●TIM337*006POZ
10 WVDC		
1.0	X	TIM105*010POX
1.2	X	TIM125*010POX
1.5	X	TIM155*010POX
1.8	X	TIM185*010POX
2.2	X	TIM225*010POX
2.7	X	TIM275*010POX
3.3	X	TIM335*010POX
3.9	X	TIM395*010POX
4.7	X	TIM475*010POX
5.6	X	TIM565*010POX
6.8	X	TIM685*010POX
8.2	X	TIM825*010POX
10	X	TIM106*010POX
10	Y	TIM106*010POY
12	Y	TIM126*010POY
15	Y	TIM156*010POY
15	X	TIM156*010POX

Mfd	Case Code	Catalog Number
10 SVDC Continued		
3.9	X	TIM395*010POX
4.7	W	TIM475M010POW
4.7	X	TIM475*010POX
5.6	X	TIM565*010POX
6.8	X	TIM685*010POX
8.2	X	TIM825*010POX
10	W	TIM106*010POW
10	X	TIM106*010POX
15	W	TIM156*010POW
15	X	TIM156*010POX
18	X	●TIM186*010POX
18	Y	TIM186*010POY
22	X	TIM226*010POX
27	Y	TIM276*010POY
33	Y	TIM336*010POY
39	Y	TIM396*010POY
47	Y	TIM476*010POY
56	Y	TIM566*010POY
120	Z	●TIM127*010POZ
150	Z	●TIM157*010POZ
180	Z	●TIM187*010POZ
15 WVDC		
1.0	X	TIM105*015POX
1.2	X	TIM125*015POX
1.5	X	TIM155*015POX
1.8	X	TIM185*015POX
2.2	X	TIM225*015POX
2.7	X	TIM275*015POX
3.3	X	TIM335*015POX
3.9	X	TIM395*015POX
4.7	X	TIM475*015POX
5.6	X	TIM565*015POX
6.8	X	TIM685*015POX
8.2	X	TIM825*015POX
10	X	TIM106*015POX
10	Y	TIM106*015POY
12	Y	TIM126*015POY
15	Y	TIM156*015POY

Mfd	Case Code	Catalog Number
15 WVDC Continued		
15	Y	TIM156*015POY
18	Y	TIM186*015POY
22	Y	TIM226*015POY
27	Y	TIM276*015POY
33	Y	TIM336*015POY
100	Z	●TIM107*015POZ
20 WVDC		
1.5	W	TIM155M020POW
2.2	W	TIM225M020POW
5.6	W	TIM565*020POW
5.6	X	TIM565*020POX
6.8	W	TIM685*020POW
6.8	X	TIM685*020POX
10	Y	TIM106*020POY
12	X	●TIM126*020POX
12	Y	TIM126*020POY
15	Y	TIM156*020POY
18	Y	TIM186*020POY
27	Y	●TIM276*020POY
82	Z	●TIM826*020POZ
25 WVDC		
1.0	X	TIM105*025POX
1.2	X	TIM125*025POX
1.5	X	TIM155*025POX
1.8	X	TIM185*025POX
2.2	X	TIM225*025POX
2.7	X	TIM275*025POX
3.3	W	TIM335*025POW
3.3	X	TIM335*025POX
3.9	X	TIM395*025POX
4.7	W	TIM475*025POW
4.7	X	TIM475*025POX
5.6	X	TIM565*025POX
5.6	Y	TIM565*025POY
6.8	Y	TIM685*025POY
8.2	X	●TIM825*025POX

*Specify "K" or "M" tolerance; M = $\pm 20\%$, K = $\pm 10\%$

● NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Mfd	Case Code	Catalog Number
25 WVDC Continued		
8.2	Y	TIM825*025POY
10	X	●TIM106*025POX
10	Y	TIM106*025POY
12	Y	TIM126*025POY
15	Y	TIM156*025POY
22	Y	●TIM226*025POY
56	Z	●TIM566*025POZ
68	Z	●TIM686*025POZ
35 WVDC		
.082	X	TIM823*035POX
.10	X	TIM104*035POX
.15	X	TIM154*035POX
.22	X	TIM224*035POX
.33	X	TIM334*035POX
.39	X	TIM394*035POX
.47	X	TIM474*035POX
.56	X	TIM564*035POX
.68	X	TIM684*035POX
1.0	X	TIM105*035POX
1.2	W	TIM125K035POW
1.2	X	TIM125*035POX
1.5	X	TIM155*035POX
1.8	X	TIM185*035POX
2.2	W	TIM225*035POW
2.2	X	TIM225*035POX
2.7	W	TIM275*035POW
2.7	X	TIM275*035POX

Mfd	Case Code	Catalog Number
35 WVDC Continued		
3.3	X	TIM335*035POX
3.9	X	TIM395*035POX
3.9	Y	TIM395*035POY
4.7	X	●TIM475*035POX
4.7	Y	TIM475*035POY
5.6	X	●TIM565*035POX
5.6	Y	TIM565*035POY
6.8	X	●TIM685*035POX
6.8	Y	TIM685*035POY
8.2	Y	TIM825*035POY
10	Y	TIM106K035POY
12	Y	●TIM126*035POY
15	Y	●TIM156*035POY
18	Y	●TIM186*035POY
18	Z	●TIM186*035POZ
22	Z	●TIM226*035POZ
27	Z	●TIM276*035POZ
33	Z	●TIM336*035POZ
39	Z	●TIM396*035POZ
47	Z	●TIM476*035POZ
50 WVDC		
.082	X	TIM823*050POX
.10	X	TIM104*050POX
.12	X	●TIM124*050POX
.15	X	TIM154*050POX
.18	X	●TIM184*050POX
.22	X	TIM224*050POX
.27	X	●TIM274*050POX

Mfd	Case Code	Catalog Number
50 WVDC Continued		
.33	W	TIM334*050POW
.33	X	TIM334*050POX
.39	X	TIM394*050POX
.47	W	TIM474*050POW
.47	X	TIM474*050POX
.56	W	TIM564*050POW
.56	X	TIM564*050POX
.68	W	TIM684*050POW
.68	X	TIM684*050POX
.82	X	●TIM824*050POX
1.0	W	TIM105*050POW
1.0	X	TIM105*050POX
1.2	X	TIM125*050POX
1.5	W	TIM155*050POW
1.5	X	TIM155*050POX
1.8	X	TIM185*050POX
2.2	X	TIM225*050POX
2.7	X	●TIM275*050POX
3.3	X	●TIM335*050POX
3.9	X	●TIM395*050POX
3.9	Y	TIM395*050POY
4.7	Y	TIM475*050POY
5.6	Y	TIM565*050POY
6.8	Y	●TIM685*050POY
6.8	Z	●TIM685*050POZ
8.2	Z	●TIM825*050POZ
10	Z	●TIM106*050POZ
12	Z	●TIM126*050POZ
15	Z	●TIM156*050POZ

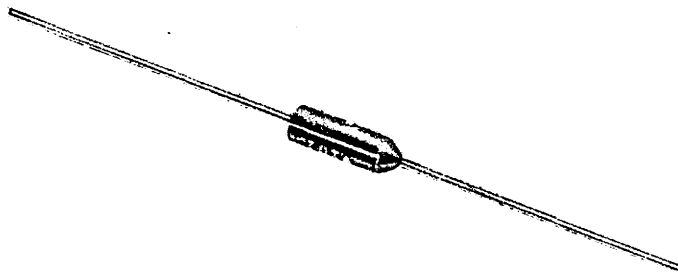
*Specify "K" or "M" tolerance; M = ±20%, K = ±10%

Consult your local Mallory distributor for price information.

● NEW PRODUCT

Specifications subject to change without notice.

Type TAC Molded Solid Tantalum Capacitor



The TAC construction includes the same dry electrolyte sintered tantalum anode as used in high reliability military type capacitors. The capacitor is fully precision molded in high impact resistant epoxy cases specifically designed to close tolerances for adaptation to high speed automatic insertion applications. Cases are tapered at the positive lead for quick polarity identification. Lead wires are high purity nickel with solder coating. Reel packing is available on special request. Request bulletin 4-807 for complete technical data. For pricing, refer to price sheet No. 358. Replaces T310, T322, 1580, 1540, 173D.

HIGHLIGHTS

Capacitance Range— .082 to 68 μ F
 Voltage— 6–50 VDC
 Temperature Range— -55°C to $+125^{\circ}\text{C}$
 Operating Frequency— 120Hz

Cap. (μ F)	Case Code	Catalog Number
6 WVDC		
5.6	2	See TAC565K010P02
	2	See TAC565M010P02
6.8	2	See TAC685K010P02
	2	See TAC685M010P02
8.2	5	TAC825K006P05
	5	● TAC825M006P05
10	2	TAC106K006P02
	2	TAC106M006P02
10	5	TAC106M006P05
12	2	TAC126K006P02
	2	TAC126M006P02
12	5	TAC126K006P05
15	3	● TAC156K006P03
	3	● TAC156M006P03
15	4	See TAC156K020P04
	4	See TAC156M020P04
15	5	TAC156K006P05
	5	TAC156M006P05
18	4	See TAC186K015P04
	4	See TAC186M015P04
22	4	See TAC226K015P04
	4	See TAC226M015P04
22	5	TAC226K006P05
	5	TAC226M006P05
33	4	See TAC276K010P04
	4	See TAC276M010P04
33	4	See TAC336K010P04
	4	See TAC336M010P04
39	4	See TAC396K010P04
	4	See TAC396M010P04
47	4	TAC476K006P04
	4	TAC476M006P04
56	4	TAC566K006P04
68	4	● TAC686K006P04
	4	● TAC686M006P04
10 WVDC		
1.2	2	See TAC125K020P02
	2	See TAC125M020P02
1.5	2	See TAC155K020P02
	2	See TAC155M020P02
1.8	2	See TAC185K020P02
	2	See TAC185M020P02
2.2	2	See TAC225K020P02
	2	See TAC225M020P02
2.7	2	See TAC275K015P02
	2	See TAC275M015P02
3.3	2	TAC335K010P02
	2	TAC335M010P02
3.9	2	TAC395K010P02
	2	TAC395M010P02
4.7	2	TAC475K010P02
	2	TAC475M010P02
5.6	5	TAC565K010P05
	5	TAC565M010P05

Cap. (μ F)	Case Code	Catalog Number
10 WVDC (Continued)		
6.8	2	TAC685K010P02
	2	TAC685M010P02
8.2	4	See TAC825K035P04
	4	See TAC825M035P04
8.2	5	TAC825K010P05
10	4	See TAC106K025P04
	4	See TAC106M025P04
10	5	TAC106M010P05
12	4	See TAC126K025P04
	4	See TAC126M025P04
15	4	See TAC156K020P04
	4	See TAC156M020P04
15	5	TAC156K010P05
	5	TAC156M010P05
18	4	See TAC186K015P04
	4	See TAC186M015P04
22	4	See TAC226K015P04
	4	See TAC226M015P04
27	4	TAC276K010P04
	4	TAC276M010P04
33	4	TAC336K010P04
	4	TAC336M010P04
39	4	TAC396K010P04
	4	TAC396M010P04
47	4	● TAC476K010P04
	4	● TAC476M010P04
15 WVDC		
1.2	2	See TAC125K020P02
	2	See TAC125M020P02
1.5	2	See TAC155K020P02
	2	See TAC155M020P02
1.8	2	See TAC185K020P02
	2	See TAC185M020P02
2.2	2	See TAC225K020P02
	2	See TAC225M020P02
2.7	2	TAC275K015P02
	2	TAC275M015P02
3.3	3	TAC335K015P03
	3	TAC335M015P03
3.9	4	See TAC395K050P04
	4	See TAC395M050P04
3.9	5	See TAC395K025P05
	5	See TAC395M025P05
4.7	4	See TAC475K050P04
	4	See TAC475M050P04
4.7	5	See TAC475K020P05
	5	See TAC475M020P05
5.6	4	See TAC565K035P04
	4	See TAC565M035P04
6.8	4	See TAC685K035P04
	4	See TAC685M035P04
8.2	4	See TAC825K035P04
	4	See TAC825M035P04

Cap. (μ F)	Case Code	Catalog Number
15 WVDC (Continued)		
10	4	See TAC106K025P04
	4	See TAC106M025P04
10	5	TAC106K015P05
	5	TAC106M015P05
12	4	See TAC126K025P04
	4	See TAC126M025P04
15	4	See TAC156K020P04
	4	See TAC156M020P04
18	4	TAC186K015P04
	4	TAC186M015P04
22	4	TAC226K015P04
	4	TAC226M015P04
27	4	● TAC276K015P04
	4	● TAC276M015P04
33	4	● TAC336K015P04
	4	● TAC336M015P04
39	4	● TAC396K015P04
	4	● TAC396M015P04
20 WVDC		
1.0	2	TAC105K020P02
	2	TAC105M020P02
1.2	2	TAC125K020P02
	2	TAC125M020P02
1.5	2	TAC155K020P02
	2	TAC155M020P02
1.8	2	TAC185K020P02
	2	TAC185M020P02
2.2	2	TAC225K020P02
	2	TAC225M020P02
2.7	5	TAC275K020P05
	5	See TAC335K050P04
3.3	4	See TAC335M050P04
	4	TAC335K020P05
3.3	5	TAC335M020P05
	5	See TAC395K050P04
3.9	4	See TAC395M050P04
	4	See TAC395K025P05
3.9	5	See TAC395M025P05
4.7	4	See TAC475K050P04
	4	See TAC475M050P04
4.7	5	TAC475K020P05
5.6	4	See TAC565K035P04
	4	See TAC565M035P04
6.8	4	See TAC685K035P04
	4	See TAC685M035P04
6.8	5	TAC685K020P05
8.2	4	See TAC825K035P04
	4	See TAC825M035P04
10	4	TAC106K020P04
	4	TAC106M020P04
12	4	See TAC126K025P04
	4	See TAC126M025P04
15	4	TAC156K020P04
	4	TAC156M020P04

● NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED

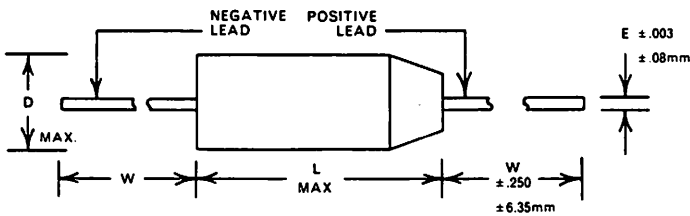
Specifications subject to change without notice.

Cap. (μF)	Case Code	Catalog Number
20 WVDC (Continued)		
18	4	●TAC186K020P04
	4	●TAC186M020P04
22	4	●TAC226K020P04
	4	●TAC226M020P04
25 WVDC		
1.2	3	See TAC125K035P03
	3	See TAC125M035P03
1.5	3	TAC155K025P03
	3	TAC155M025P03
1.8	3	TAC185K025P03
	3	TAC185M025P03
2.2	3	TAC225K025P03
2.7	4	TAC275K050P04
	4	TAC275M050P04
2.7	5	TAC275K025P05
3.3	4	See TAC335K050P04
	4	See TAC335M050P04
3.3	5	See TAC335M025P05
3.9	4	See TAC395K050P04
	4	See TAC395M050P04
3.9	5	TAC395K025P05
4.7	4	See TAC475K050P04
	4	See TAC475M050P04
4.7	5	TAC475K025P05
	5	TAC475M025P05
5.6	4	See TAC565K035P04
	4	See TAC565M035P04
6.8	4	See TAC685K035P04
	4	See TAC685M035P04
8.2	4	See TAC825K035P04
	4	See TAC825M035P04
10	4	TAC106K025P04
	4	TAC106M025P04
12	4	TAC126K025P04
	4	TAC126M025P04
15	4	●TAC156K025P04
	4	●TAC156M025P04
18	4	●TAC186K025P04
	4	●TAC186M025P04

Cap. (μF)	Case Code	Catalog Number
35 WVDC		
.56	2	TAC564K035P02
.68	2	TAC684K035P02
	2	TAC684M035P02
.82	2	TAC824K035P02
	2	TAC824M035P02
1.2	3	TAC125K035P03
	3	TAC125M035P03
1.5	5	TAC155K035P05
1.8	3	●TAC185K035P03
	3	●TAC185M035P03
2.2	5	TAC225K035P05
	5	TAC225M035P05
2.7	4	See TAC275K050P04
	4	See TAC275M050P04
2.7	5	TAC275K035P05
	5	TAC275M035P05
3.3	4	See TAC335K050P04
	4	See TAC335M050P04
3.3	5	TAC335K035P05
	5	TAC335M035P05
3.9	4	See TAC395K050P04
	4	See TAC395M050P04
3.9	5	See TAC395M025P05
4.7	4	TAC475K035P04
	4	TAC475M035P04
5.6	4	TAC565K035P04
	4	TAC565M035P04
6.8	4	TAC685K035P04
	4	TAC685M035P04
8.2	4	TAC825K035P04
	4	TAC825M035P04
10	4	●TAC106K035P04
	4	●TAC106M035P04
50 WVDC		
.082	2	TAC823K050P02
	2	TAC823M050P02
.10	2	TAC104K050P02
	2	TAC104M050P02
.12	2	TAC124K050P02
	2	TAC124M050P02

Cap. (μF)	Case Code	Catalog Number
50 WVDC (Continued)		
.15	2	TAC154K050P02
	2	TAC154M050P02
.18	2	TAC184K050P02
	2	TAC184M050P02
.22	2	TAC224K050P02
	2	TAC224M050P02
.27	2	TAC274K050P02
	2	TAC274M050P02
.33	2	TAC334K050P02
	2	TAC334M050P02
.39	2	TAC394K050P02
	2	TAC394M050P02
.47	2	TAC474K050P02
	2	TAC474M050P02
.56	3	TAC564K050P03
	3	TAC564M050P03
.68	3	TAC684K050P03
	3	TAC684M050P03
.82	3	TAC824K050P03
	3	TAC824M050P03
1.0	3	TAC105K050P03
	3	TAC105M050P03
1.2	4	TAC125K050P03
	4	TAC125M050P03
1.2	5	TAC125K050P05
1.5	4	TAC155K050P04
	4	TAC155M050P04
1.5	5	TAC155K050P05
2.2	4	TAC225K050P04
	4	TAC225M050P04
2.7	4	TAC275K050P04
	4	TAC275M050P04
3.3	4	TAC335K050P04
	4	TAC335M050P04
3.9	4	TAC395K050P04
	4	TAC395M050P04
4.7	4	TAC475K050P04
	4	●TAC475M050P04
5.6	4	●TAC565K050P04
	4	●TAC565M050P04

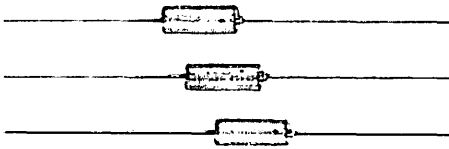
OUTLINE DIMENSIONS



CASE CODE CHART

Case Code	Case			Lead Wire			
	Max. Wt.	Diameter D	Length L	Diameter E	Length W		
2	.3	.105 2.67	.300 7.62	.020 0.51	1.50	38.10	
3	.4	.148 3.76	.350 8.89	.025 0.64	1.50	38.10	
5	.6	.180 4.57	.350 8.89	.020 0.51	1.50	38.10	
4	1.3	.200 5.08	.540 13.72	.025 0.64	1.50	38.10	

Type TAS-TXA Solid Tantalum Electrolyte Capacitors



TAS-TXA construction combines a sintered slug with solid electrolyte in a hermetically sealed case to provide long life with very stable electrical characteristics over a temperature range of -80°C to $+85^{\circ}\text{C}$ (To $+125^{\circ}\text{C}$ with proper voltage derating). Standard TAS capacitors offer ratings from $22\mu\text{F}$ at 50VDC to $330\mu\text{F}$ at 6VDC in 4 sizes. Extended capacitance range is available as type TXA with ratings from $39\mu\text{F}$ at 50VDC to $1000\mu\text{F}$ at 6VDC , in the same 4 sizes as the TAS. TAS types are listed with uninsulated cases; for insulating sleeve, change 12th digit of catalog number from 0 to 1. Case Sizes: TAS-TXA sizes are indicated by the last letter in the part number (A, C, F, & G). Replaces 150D, T110, T140, XNS. Request bulletin 4-801 for additional information. For prices see price sheet No. 398.

VOLTAGES SHOWN ARE AT $+85^{\circ}\text{C}$

Cap. (MFD)	6 WVDC Catalog No.†	10 WVDC Catalog No.†	15 WVDC Catalog No.†	20 WVDC Catalog No.†	35 WVDC Catalog No.†	50 WVDC Catalog No.†
.056	TAS563K006POA	TAS563K010POA	TAS563K015POA	TAS563K020POA	TAS563K035POA	TAS563K050POA ‡
.068	TAS683*006POA	TAS683*010POA	TAS683*015POA	TAS683*020POA	TAS683*035POA	TAS683*050POA ‡
.082	TAS823K006POA	TAS823K010POA	TAS823K015POA	TAS823K020POA	TAS823K035POA	TAS823K050POA ‡
.10	TAS104*006POA	TAS104*010POA	TAS104*015POA	TAS104*020POA	TAS104*035POA	TAS104*050POA ‡
.12	TAS124K006POA	TAS124K010POA	TAS124K015POA	TAS124K020POA	TAS124K035POA	TAS124K050POA ‡
.15	TAS154*006POA	TAS154*010POA	TAS154*015POA	TAS154*020POA	TAS154*035POA	TAS154*050POA ‡
.18	TAS184K006POA	TAS184K010POA	TAS184K015POA	TAS184K020POA	TAS184K035POA	TAS134K050POA ‡
.22	TAS224*006POA	TAS224*010POA	TAS224*015POA	TAS224*020POA	TAS224*035POA	TAS224*050POA ‡
.27	TAS274K006POA	TAS274K010POA	TAS274K015POA	TAS274K020POA	TAS274K035POA	TAS274K050POA ‡
.33	TAS334*006POA	TAS334*010POA	TAS334*015POA	TAS334*020POA	TAS334*035POA	TAS334*050POA ‡
.39	TAS394K006POA	TAS394K010POA	TAS394K015POA	TAS394K020POA	TAS394K035POA	TAS394K050POA ‡
.47	TAS474*006POA	TAS474*010POA	TAS474*015POA	TAS474*020POA	TAS474*035POA	TAS474*050POA ‡
.56	TAS564K006POA	TAS564K010POA	TAS564K015POA	TAS564K020POA	TAS564K035POA	TAS564K050POA ‡
.68	TAS684*006POA	TAS684*010POA	TAS684*015POA	TAS684*020POA	TAS684*035POA	TAS684*050POA ‡
.82	TAS824K006POA	TAS824K010POA	TAS824K015POA	TAS824K020POA	TAS824K035POA	TAS825K050POA ‡
1.0	TAS105*006POA	TAS105*010POA	TAS105*015POA	TAS105*020POA	TAS105*035POA	TAS105*050POA ‡
1.2	TAS125K006POA	TAS125K010POA	TAS125K015POA	TAS125K020POA ‡	TAS125K035POC	TAS125K050POC ‡
1.5	TAS155*006POA	TAS155*010POA	TAS155*015POA	TAS155*020POA ‡	TAS155*035POC	TAS155*050POC ‡
1.8	TAS185K006POA	TAS185K010POA	TAS185K015POA	TAS185K020POA ‡	TAS185K035POC	TAS195K050POC ‡
2.2	TAS225*006POA	TAS225*010POA	TAS225*015POA	TAS225*020POA ‡	TAS225*035POC	TAS225*050POC ‡
2.7	TAS275K006POA	TAS275K010POA	TAS275K015POA ‡	TAS275K020POC	TAS275K035POC	TAS275K050POC ‡
3.3	TAS335*006POA	TAS335*010POA	TAS335*015POA ‡	TAS335*020POC	TAS335*035POC	TAS335*050POC ‡
3.9	TAS395K006POA	TAS395K010POA ‡	TAS395K015POC	TAS395K020POC	TAS395K035POC	TAS395K050POC ‡
4.7	TAS475*006POA	TAS475*010POA ‡	TAS475*015POC	TAS475*020POC	TAS475*035POC	TAS475*050POC ‡
5.6	TAS565K006POA ‡	TAS565K010POC	TAS565K015POC	TAS565K020POC	TAS565K035POC ‡	TAS565K050POF ‡
6.8	TAS685*006POA ‡	TAS685*010POC	TAS685*015POC	TAS685*020POC	TAS685*035POC ‡	TAS685*050POF ‡
8.2	TAS825K006POC	TAS825K010POC	TAS825K015POC	TAS825K020POC ‡	TAS825K035POF	TAS825K050POF ‡
10	TAS106*006POC	TAS106*010POC	TAS106*015POC	TAS106*020POC ‡	TAS106*035POF	TAS106*050POF ‡
12	TAS126K006POC	TAS126K010POC	TAS126K015POC	TAS126K020POC ‡	TAS126K035POF	TAS126K050POF ‡
15	TAS156*006POC	TAS156*010POC	TAS156*015POC	TAS156*020POC ‡	TAS156*035POF	TAS156*050POF ‡
18	TAS186K006POC	TAS186K010POC	TAS186K015POC ‡	TAS186K020POF	TAS186K035POF	TAS186K050POF ‡
22	TAS226*006POC	TAS226*010POC	TAS226*015POC ‡	TAS226*020POF	TAS226*035POF ‡	TAS226*050POG ‡
27	TAS276K006POC	TAS276K010POC ‡	TAS276K015POF	TAS276K020POF ‡	TAS276K035POG ‡	.....
33	TAS336*006POC	TAS336M010POC ‡	TAS336*015POF	TAS336*020POF ‡	TAS336*035POG ‡	.....
39	TAS396K006POC	TAS396K010POC ‡	TAS396K015POF	TAS396K020POF ‡	TAS396K035POG ‡	.....
47	TAS476*006POC ‡	TAS476*010POF	TAS476*015POF	TAS476*020POF ‡	TAS476*035POG	.....
56	TAS566K006POC ‡	TAS566K010POF	TAS566K015POF ‡	TAS566K020POG ‡	.....	.....
68	TAS686*006POF	TAS686*010POF	TAS686*015POF ‡	TAS686*020POG	TAS686M035POG ‡	.....
82	TAS826K006POF	TAS826K010POF ‡	TAS826K015POG	TAS826K020POG ‡	.....	.....
100	TAS107*006POF	TAS107*010POF ‡	TAS107*015POG	TAS107*020POG ‡	.....	.....
120	TAS127K006POF	TAS127K010POF ‡	TAS127K015POG ‡	.....	.....	.....
150	TAS157*006POF ‡	TAS157*010POG	TAS157*015POG ‡	.....	.....	.....
180	TAS187K006POF ‡	TAS187K010POG ‡	.....	.....	.....	.....
220	TAS227*006POG	TAS227*010POG ‡	.....	.....	.....	.....
270	TAS277K006POG ‡	.....	.....	.....	.....	.....
330	TAS337*006POG ‡	.....	.....	.....	.....	.....

*Specify K for $\pm 10\%$ tolerance or M for $\pm 20\%$.

‡Parent value; Max. WVDC vs. capacity, size.

†Last letter indicates case size; see page 51.

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

Solid Tantalum Electrolyte Capacitors Type TXA

Extended Capacity Range

Cap. (MFD)	WVDC	Cat. No.	Case Code
8.2	6	TXA8R2M6A	A
10	6	TXA10M6A	A
12	6	TXA12M6A	A
82	6	TXA82M6C	C
100	6	TXA100M6C	C
220	6	TXA220M6F	F
270	6	TXA270M6F	F
330	6	TXA330M6F	F
390	6	TXA390M6F	F
470	6	TXA470M6F	F
560	6	TXA560M6G	G
680	6	TXA680M6G	G
820	6	TXA820M6G	G
1000	6	TXA1000M6G	G
5.6	10	TXA5R6M10A	A
6.8	10	TXA6R8M10A	A
8.2	10	TXA8R2M10A	A
47	10	TXA47M10C	C
56	10	TXA56M10C	C
68	10	TXA68M10C	C
82	10	TXA82M10C	C
150	10	TXA150M10F	F
180	10	TXA180M10F	F
220	10	TXA220M10F	F
270	10	TXA270M10F	F
330	10	TXA330M10G	G
390	10	TXA390M10G	G
470	10	TXA470M10G	G
560	10	TXA560M10G	G
3.9	15	TXA3R9M15A	A
4.7	15	TXA4R7M15A	A
5.6	15	TXA5R6M15A	A
6.8	15	TXA6R8M15A	A
27	15	TXA27M15C	C
33	15	TXA33M15C	C
39	15	TXA39M15C	C
82	15	TXA82M15F	F
100	15	TXA100M15F	F
120	15	TXA120M15F	F
150	15	TXA150M15F	F
180	15	TXA180M15F	F
220	15	TXA220M15G	G
270	15	TXA270M15G	G
330	15	TXA330M15G	G
2.7	20	TXA2R7M20A	A
3.3	20	TXA3R3M20A	A
3.9	20	TXA3R9M20A	A
4.7	20	TXA4R7M20A	A

Cap. (MFD)	WVDC	Cat. No.	Case Code
18	20	TXA18M20C	C
22	20	TXA22M20C	C
27	20	TXA27M20C	C
56	20	TXA56M20F	F
68	20	TXA68M20F	F
82	20	TXA82M20F	F
100	20	TXA100M20F	F
120	20	TXA120M20F	F
150	20	TXA150M20G	G
180	20	TXA180M20G	G
220	20	TXA220M20G	G
1.8	30	TXA1R8M30A	A
2.2	30	TXA2R2M30A	A
2.7	30	TXA2R7M30A	A
3.3	30	TXA3R3M30A	A
12	30	TXA12M30C	C
15	30	TXA15M30C	C
18	30	TXA18M30C	C
47	30	TXA47M30F	F
56	30	TXA56M30F	F
68	30	TXA68M30F	F

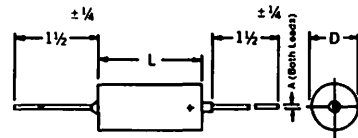
Cap. (MFD)	WVDC	Cat. No.	Case Code
82	30	TXA82M30F	F
100	30	TXA100M30G	G
1.5	35	TXA1R5M35A	A
1.8	35	TXA1R8M35A	A
2.2	35	TXA2R2M35A	A
8.2	35	TXA8R2M35C	C
10	35	TXA10M35C	C
12	35	TXA12M35C	C
27	35	TXA27M35F	F
33	35	TXA33M35F	F
39	35	TXA39M35F	F
47	35	TXA47M35F	F
68	35	TXA68M35G	G
1.2	50	TXA1R2M50A	A
1.5	50	TXA1R5M50A	A
5.6	50	TXA5R6M50C	C
6.8	50	TXA6R8M50C	C
22	50	TXA22M50F	F
27	50	TXA27M50F	F
33	50	TXA33M50G	G
39	50	TXA39M50G	G

Cases are insulated — for uninsulated case add "0" suffix to part number.
 Example: TXA8R2M6A0. See below for case code identification.

TAS-TXA — CS12/13 CASE SIZES

Case Code		Uninsulated Case Dimensions		Shrink-Fit Insulated Case Dimensions	
Mallory TAS-TXA	Mil CS12/13	D +.018 -.010	L ±.031	D +.018 -.010	L ±.031
A	A	.125	.250	.135	.286
C	B	.175	.438	.185	.474
F	C	.279	.650	.289	.686
G	D	.341	.750	.351	.786

TAS, TXA AND CS12/13 DIMENSION



Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Type CS12/13 Solid Tantalum Electrolyte Capacitors



Mallory offers Solid Tantalum Capacitors constructed to meet MIL-C-26655A and MIL-C-26655B, types CS12 and CS13. Although these specifications are obsolete for new government contracts there are still many prints in the field which call for this Military designation. Order to the specifications by MIL number as listed on page 34. Uninsulated CS12 types shown. For Insulating Sleeve specify CS13. Dimensions shown above. For prices, reference price sheet No. 398.

CATALOG NUMBER

Cap., mfd	WVDC	Tol. ±%	MIL-C-26655B	MIL-C-26655A	*MIL Case Size
5.6	6	10	CS12BB565K	CS12A B5R6K	A
6.8	6	10	CS12BB685K	CS12A B6R8K	A
6.8	6	20	CS12BB685M	CS12A B6R8M	A
47	6	10	CS12BB476K	CS12A B470K	B
47	6	20	CS12BB476M	CS12A B470M	B
56	6	10	CS12BB566K	CS12A B560K	B
150	6	10	CS12BB157K	CS12A B151K	C
150	6	20	CS12BB151M	CS12A B151M	C
180	6	10	CS12BB187K	CS12A B181K	C
270	6	10	CS12BB277K	CS12A B271K	D
330	6	10	CS12BB337K	CS12A B331K	D
330	6	20	CS12BB337M	CS12A B331M	D
3.9	10	10	CS12BC395K	CS12A C3R9K	A
4.7	10	10	CS12BC475K	CS12A C4R7K	A
4.7	10	20	CS12BC475M	CS12A C4R7M	A
27	10	10	CS12BC276K	CS12A C270K	B
33	10	10	CS12BC336K	CS12A C330K	B
33	10	20	CS12BC336M	CS12A C330M	B
39	10	10	CS12BC396K	CS12A C390K	B
82	10	10	CS12BC826K	CS12A C820K	C
100	10	10	CS12BC107K	CS12A C101K	C
100	10	20	CS12BC107M	CS12A C101M	C
120	10	10	CS12BC127K	CS12A C121K	C
180	10	10	CS12BC187K	CS12A C181K	D
220	10	10	CS12BC227K	CS12A C221K	D
220	10	20	CS12BC227M	CS12A C221M	D
2.7	15	10	CS12BD225K	CS12AD2R7K	A
3.3	15	10	CS12BD335K	CS12AD3R3K	A
3.3	15	20	CS12BD335M	CS12AD3R3M	A
18	15	10	CS12BD186K	CS12AD180K	B
22	15	10	CS12BD226K	CS12AD220K	B
22	15	20	CS12BD226M	CS12AD220M	B
56	15	10	CS12BD566K	CS12AD560K	C
68	15	10	CS12BD686K	CS12AD680K	C
68	15	20	CS12BD686M	CS12AD680M	C
120	15	10	CS12BD127K	CS12AD121K	D
150	15	10	CS12BD157K	CS12AD151K	D
150	15	20	CS12BD157M	CS12AD151M	D
1.2	20	10	CS12BE125K	CS12A E1R2K	A
1.5	20	10	CS12BE155K	CS12A E1R5K	A
1.5	20	20	CS12BE155M	CS12A E1R5M	A
1.8	20	10	CS12BE185K	CS12A E1R8K	A
2.2	20	10	CS12BE225K	CS12A E2R2K	A
2.2	20	20	CS12BE225M	CS12A E2R2M	A
8.2	20	10	CS12BE825K	CS12A E8R2K	B
10	20	10	CS12BE106K	CS12A E100K	B
10	20	20	CS12BE106M	CS12A E100M	B
12	20	10	CS12BE126K	CS12A E120K	B
15	20	10	CS12BE156K	CS12A E150K	B
15	20	20	CS12BE156M	CS12A E150M	B
27	20	10	CS12BE276K	CS12A E270K	C
33	20	10	CS12BE336K	CS12A E330K	C
33	20	20	CS12BE336M	CS12A E330M	C
39	20	10	CS12BE396K	CS12A E390K	C
47	20	10	CS12BE476K	CS12A E470K	C
47	20	20	CS12BE476M	CS12A E470M	C
56	20	10	CS12BE566K	CS12A E560K	D
68	20	10	CS12BE686K	CS12A E680K	D
68	20	20	CS12BE686M	CS12A E680M	D
82	20	10	CS12BE826K	CS12A E820K	D
100	20	10	CS12BE107K	CS12A E101K	D
100	20	20	CS12BE107M	CS12A E101M	D

CATALOG NUMBER

Cap., mfd	WVDC	Tol. ±%	MIL-C-26655B	MIL-C-26655A	*MIL Case Size
.33	35	10	CS12BF334K	CS12AFR33K	A
.33	35	20	CS12BF334M	CS12AFR33M	A
.39	35	10	CS12BF394K	CS12AFR39K	A
.47	35	10	CS12BF474K	CS12AFR47K	A
.47	35	20	CS12BF474M	CS12AFR47M	A
.56	35	10	CS12BF564K	CS12AFR56K	A
.68	35	10	CS12BF684K	CS12AFR68K	A
.68	35	20	CS12BF684M	CS12AFR68M	A
.82	35	10	CS12BF824K	CS12AFR82K	A
1.0	35	10	CS12BF105K	CS12AF010K	A
1.0	35	20	CS12BF105M	CS12AF010M	A
1.2	35	10	CS12BF125K	CS12AF1R2K	B
1.5	35	10	CS12BF155K	CS12AF1R5K	B
1.5	35	20	CS12BF155M	CS12AF1R5M	B
1.8	35	10	CS12BF185K	CS12AF1R8K	B
2.2	35	10	CS12BF225K	CS12AF2R2K	B
2.2	35	20	CS12BF225M	CS12AF2R2M	B
2.7	35	10	CS12BF275K	CS12AF2R7K	B
3.3	35	10	CS12BF335K	CS12AF3R3K	B
3.3	35	20	CS12BF335M	CS12AF3R3M	B
3.9	35	10	CS12BF395K	CS12AF3R9K	B
4.7	35	10	CS12BF475K	CS12AF4R7K	B
4.7	35	20	CS12BF475M	CS12AF4R7M	B
5.6	35	10	CS12BF565K	CS12AF5R6K	B
6.8	35	10	CS12BF685K	CS12AF6R8K	B
6.8	35	20	CS12BF685M	CS12AF6R8M	B
8.2	35	10	CS12BF825K	CS12AF8R2K	C
10	35	10	CS12BF106K	CS12AF100K	C
10	35	20	CS12BF106M	CS12AF100M	C
12	35	10	CS12BF126K	CS12AF120K	C
15	35	10	CS12BF156K	CS12AF150K	C
18	35	10	CS12BF186K	CS12AF180K	C
22	35	10	CS12BF226K	CS12AF220K	C
22	35	20	CS12BF226M	CS12AF220M	C
27	35	10	CS12BF276K	CS12AF270K	D
33	35	10	CS12BF336K	CS12AF330K	D
33	35	20	CS12BF336M	CS12AF330M	D
39	35	10	CS12BF396K	CS12AF390K	D
47	35	10	CS12BF476K	CS12AF470K	D
47	35	20	CS12BF476M	CS12AF470M	D
1.0	50	10	CS12BG105K	CS12AG010K	A
1.0	50	20	CS12BG105M	CS12AG010M	A
1.2	50	10	CS12AG125K	CS12AG1R2K	B
1.5	50	10	CS12AG155K	CS12AG1R5K	B
1.5	50	20	CS12AG155M	CS12AG1R5M	B
1.8	50	10	CS12AG185K	CS12AG1R8K	B
2.2	50	10	CS12AG225K	CS12AG2R2K	B
2.2	50	20	CS12AG225M	CS12AG2R2M	B
2.7	50	10	CS12AG275K	CS12AG2R7K	B
3.3	50	10	CS12AF335K	CS12AF3R3K	B
3.3	50	20	CS12AF335M	CS12AF3R3M	B
3.9	50	10	CS12AG395K	CS12AG3R9K	B
4.7	50	10	CS12AG475K	CS12AG4R7K	B
4.7	50	20	CS12AG475M	CS12AG4R7M	B
5.6	50	10	CS12AG565K	CS12AG5R6K	C
6.8	50	10	CS12AG685K	CS12AG6R8K	C
6.8	50	20	CS12AG685M	CS12AG6R8M	C
8.2	50	10	CS12AG825K	CS12AG8R2K	C
10	50	10	CS12AG106K	CS12AG100K	C
10	50	20	CS12AG106M	CS12AG100M	C
12	50	10	CS12AG126K	CS12AG120K	C
15	50	10	CS12AG156K	CS12AG150K	C
15	50	20	CS12AG156M	CS12AG150M	C
18	50	10	CS12AG186K	CS12AG180K	C
22	50	10	CS12AG226K	CS12AG220K	D
22	50	20	CS12AG226M	CS12AG220M	D

Consult your local Mallory distributor for price information.

*See size chart page 51.

CONTINUED



Solid Tantalum Capacitors Type THF

Switching Regulator Filter Capacitors

The THF solid tantalum capacitor is designed to offer low impedance to ripple current at frequencies above 1kHz through 100kHz. Special patented configuration sintered anodes provide lower equivalent series resistance (ESR) at these frequencies in comparison to conventional type solid tantalum capacitors. Lower ESR means lower power losses. Lower power loss characteristics result in savings in space, weight and cost by substituting one THF for as many as four conventional CSR 13 type capacitors to bypass or filter unwanted ripple currents. Ripple Current ratings by part number are shown in the Standard Rating Table. The solid electrolyte combined with the hermetic seal provides an inherently long life time and very stable electrical characteristics over a temperature range of -80° through +125°C.

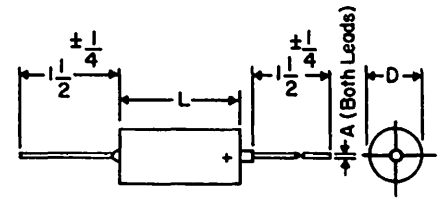
Request bulletin 4-805 for complete technical data. For prices, request price sheet No. 362.

KEY FEATURES: High ripple current, Low ESR, Lower impedance at high frequencies, Small size, Extremely stable capacitance, Hermetic seal, Long life.

APPLICATIONS: Switching Regulators, High Frequency Power Supplies, By-pass filtering.

HIGHLIGHTS

- Capacitance 5.6 to 330 μ F
- Voltage 6 to 50 VDC
- Tolerance + 10% standard; \pm 20% (optional)
- Temperature - 80°C to + 85°C (to + 125°C with proper voltage derating).



THF DIMENSIONS

CASE CODE	Uninsulated Case Dimensions		Shrink-Fit Insulated Case Dimensions		
	D	L	D	L	A
Mallory THF	+ .016 - .010	\pm .031	+ .016 - .010	\pm .031	+ .005 - .001
F	.279	.650	.289	.686	.025
G	.341	.750	.351	.786	.025

Cap. (μ F)	WVDC +85°C	Max. RMS Ripple Current @ +25°C @ 10kHz (amperes)	Case Size	Catalog No.
150	6	2.4	F	THF157K006P1F
180	6	2.88	F	THF187K006P1F
220	6	3.48	G	THF227K006P1G
270	6	4.08	G	THF277K006P1G
330	6	4.56	G	THF337K006P1G
82	10	2.16	F	THF826K010P1F
100	10	2.64	F	THF107K010P1F
120	10	3.0	F	THF127K010P1F
150	10	3.72	G	THF157K010P1G
180	10	4.08	G	THF187K010P1G
220	10	4.08	G	THF227K010P1G
56	15	2.16	F	THF566K015P1F
68	15	2.64	F	THF686K015P1F
82	15	3.24	G	THF826K015P1G
100	15	3.0	G	THF107K015P1G

Cap. (μ F)	WVDC +85°C	Max. RMS Ripple Current @ +25°C @ 10kHz (amperes)	Case Size	Catalog No.
120	15	3.36	G	THF127K015P1G
150	15	3.72	G	THF157K015P1G
27	20	1.44	F	THF276K020P1F
33	20	1.68	F	THF336K020P1F
39	20	2.04	F	THF396K020P1F
47	20	2.16	F	THF476K020P1F
56	20	2.64	G	THF566K020P1G
68	20	2.88	G	THF686K020P1G
82	20	3.24	G	THF826K020P1G
100	20	3.0	G	THF107K020P1G
8.2	35	.72	F	THF825K035P1F
10	35	.84	F	THF106K035P1F
12	35	1.08	F	THF126K035P1F
15	35	1.32	F	THF156K035P1F
18	35	1.68	F	THF186K035P1F

Cap. (μ F)	WVDC +85°C	Max. RMS Ripple Current @ +25°C @ 10kHz (amperes)	Case Size	Catalog No.
22	35	1.8	F	THF226K035P1F
27	35	2.28	G	THF276K035P1G
33	35	2.28	G	THF336K035P1G
39	35	2.40	G	THF396K035P1G
47	35	2.64	G	THF476K035P1G
5.6	50	.72	F	THF565K050P1F
6.8	50	.84	F	THF685K050P1F
8.2	50	1.08	F	THF825K050P1F
10	50	1.32	F	THF106K050P1F
12	50	1.56	F	THF126K050P1F
15	50	1.68	F	THF156K050P1F
18	50	1.68	F	THF186K050P1F
22	50	2.04	G	THF226K050P1G

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Solid Electrolyte Tantalum Capacitors Type CSR23

ESTABLISHED RELIABILITY MIL-C-39003

Type CSR23 is an extended range version of the CSR13. It offers a high c/v product in MIL case sizes A, B, C & D. Available in MIL failure rate levels "L", "M", "P", "R" and "S". (Failure rate level "L" is no longer included in the MIL-C-39003. However, "L" level is available from stock.) Replaces 178D, T242, XNS, TER. For prices, request price sheet No. 352, 353, 354.

The CSR33 capacitors are available in the same ratings as the CSR23, however, the DCL is much lower. The DCL on the CSR23 ranges from .9 thru 11 microamperes as compared with the CSR33 which ranges from .5 — 2 microamperes @ +25°C. The CSR33 is available in failure rate level "M" and "P" in MIL case sizes A, B, C, & D. Replaces 179D, T252, ZNS, TXR. For prices, request price sheet No. 351.

Ordering information: Indicate CSR followed by the appropriate 4 digit dash number which indicates the desired capacity, voltage, tolerance and failure rate level, etc.

Example: To order Style CSR23 — 10µFD; 6 WVDC; ± 10%; "M" failure rate; Order as follows: CSR230101. Request bulletin 4-813 for complete technical data.

HIGHLIGHTS

- Capacitance — 1.2 to 1000µF
- Voltage — 6 to 50 WVDC
- Tolerance — ± 10%, ± 20%
- Temperature — 55°C to + 125°C
- Case Sizes — 4 sizes to MIL A, B, C, D

KEY FEATURES

- Excellent stability
- Low DCL, DF and Impedance
- Glass to metal hermetic seal
- Rugged construction
- Long life

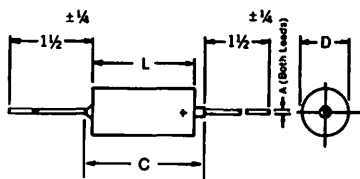
APPLICATIONS

Bypass, filtering, coupling, and timing circuits

***CSR13, CSR23 and CSR33 Size Chart**

Case	Uninsulated		Insulated Sleeve		Overall C inch	Lead Dia. A inch AWG	
	D inch	L inch	D inch	L inch		inch	AWG
MIL-C-39003	+ .016 - .010	+ .031 —	+ .016 - .015	+ .031 —	Max.	+ .015 - .001	
A	.125	.250	.135	.286	.422	.020	#24
B	.175	.438	.185	.474	.610	.020	#24
C	.279	.650	.289	.686	.822	.025	#22
D	.341	.750	.351	.786	.922	.025	#22

CSR13, CSR23 and CSR33 Dimensions



Type CSR23

Part No. M39003/03- Failure rate level for (%/1,000 hrs)									Part No. M39003/03- Failure rate level for (%/1,000 hrs)								
Cap. (MFD)	Tol.	WVDC At +85°C	L 2.0%	M 1.0%	P 0.1%	R 0.01%	S 0.001%	*MIL Case Size	Cap. (MFD)	Tol.	WVDC At +85°C	L 2.0%	M 1.0%	P 0.1%	R 0.01%	S 0.001%	*MIL Case Size
10.0	10%	6	0001	0101	0201	0301	0401	A	2.7	10%	20	0046	0146	0246	0346	0446	A
10.0	20%	6	0002	0102	0202	0302	0402	A	3.3	10%	20	0047	0147	0247	0347	0447	A
12.0	10%	6	0003	0103	0203	0303	0403	A	3.3	20%	20	0048	0148	0248	0348	0448	A
100.0	10%	6	0004	0104	0204	0304	0404	B	3.9	10%	20	0049	0149	0249	0349	0449	A
100.0	20%	6	0005	0105	0205	0305	0405	B	18.0	10%	20	0050	0150	0250	0350	0450	B
330.0	10%	6	0006	0106	0206	0306	0406	C	22.0	10%	20	0051	0151	0251	0351	0451	B
330.0	20%	6	0007	0107	0207	0307	0407	C	22.0	20%	20	0052	0152	0252	0352	0452	B
390.0	10%	6	0008	0108	0208	0308	0408	C	27.0	10%	20	0053	0153	0253	0353	0453	B
470.0	10%	6	0009	0109	0209	0309	0409	C	56.0	10%	20	0054	0154	0254	0354	0454	C
470.0	20%	6	0010	0110	0210	0310	0410	C	68.0	10%	20	0055	0155	0255	0355	0455	C
680.0	10%	6	0011	0111	0211	0311	0411	D	68.0	20%	20	0056	0156	0256	0356	0456	C
680.0	20%	6	0012	0112	0212	0312	0412	D	82.0	10%	20	0057	0157	0257	0357	0457	C
820.0	10%	6	0013	0113	0213	0313	0413	D	100.0	10%	20	0058	0158	0258	0358	0458	C
1000.0	10%	6	0014	0114	0214	0314	0414	D	100.0	20%	20	0059	0159	0259	0359	0459	C
1000.0	20%	6	0015	0115	0215	0315	0415	D	120.0	10%	20	0060	0160	0260	0360	0460	C
6.8	10%	10	0016	0116	0216	0316	0416	A	150.0	10%	20	0061	0161	0261	0361	0461	D
6.8	20%	10	0017	0117	0217	0317	0417	A	150.0	20%	20	0062	0162	0262	0362	0462	D
8.2	10%	10	0018	0118	0218	0318	0418	A	180.0	10%	20	0063	0163	0263	0363	0463	D
47.0	10%	10	0019	0119	0219	0319	0419	B	1.8	10%	35	0064	0164	0264	0364	0464	A
47.0	20%	10	0020	0120	0220	0320	0420	B	8.2	10%	35	0065	0165	0265	0365	0465	B
56.0	10%	10	0021	0121	0221	0321	0421	B	10.0	10%	35	0066	0166	0266	0366	0466	B
68.0	10%	10	0022	0122	0222	0322	0422	B	10.0	20%	35	0067	0167	0267	0367	0467	B
68.0	20%	10	0023	0123	0223	0323	0423	B	33.0	10%	35	0068	0168	0268	0368	0468	C
82.0	10%	10	0024	0124	0224	0324	0424	B	33.0	20%	35	0069	0169	0269	0369	0469	C
220.0	10%	10	0025	0125	0225	0325	0425	C	39.0	10%	35	0070	0170	0270	0370	0470	C
220.0	20%	10	0026	0126	0226	0326	0426	C	47.0	10%	35	0071	0171	0271	0371	0471	C
270.0	10%	10	0027	0127	0227	0327	0427	C	47.0	20%	35	0072	0172	0272	0372	0472	C
390.0	10%	10	0028	0128	0228	0328	0428	D	56.0	10%	35	0073	0173	0273	0373	0473	D
470.0	10%	10	0029	0129	0229	0329	0429	D	68.0	10%	35	0074	0174	0274	0374	0474	D
470.0	20%	10	0030	0130	0230	0330	0430	D	68.0	20%	35	0075	0175	0275	0375	0475	D
560.0	10%	10	0031	0131	0231	0331	0431	D	1.2	10%	50	0076	0176	0276	0376	0476	A
4.7	10%	15	0032	0132	0232	0332	0432	A	1.5	10%	50	0077	0177	0277	0377	0477	A
4.7	20%	15	0033	0133	0233	0333	0433	A	1.5	20%	50	0078	0178	0278	0378	0478	A
5.6	10%	15	0034	0134	0234	0334	0434	A	5.6	10%	50	0079	0179	0279	0379	0479	B
33.0	10%	15	0035	0135	0235	0335	0435	B	6.8	10%	50	0080	0180	0280	0380	0480	B
33.0	20%	15	0036	0136	0236	0336	0436	B	6.8	20%	50	0081	0181	0281	0381	0481	B
39.0	10%	15	0037	0137	0237	0337	0437	B	22.0	10%	50	0082	0182	0282	0382	0482	C
150.0	10%	15	0038	0138	0238	0338	0438	C	22.0	20%	50	0083	0183	0283	0383	0483	C
150.0	20%	15	0039	0139	0239	0339	0439	C	27.0	10%	50	0084	0184	0284	0384	0484	C
180.0	10%	15	0040	0140	0240	0340	0440	C	33.0	10%	50	0085	0185	0285	0385	0485	D
220.0	10%	15	0041	0141	0241	0341	0441	D	33.0	20%	50	0086	0186	0286	0386	0486	D
220.0	20%	15	0042	0142	0242	0342	0442	D	39.0	10%	50	0087	0187	0287	0387	0487	D
270.0	10%	15	0043	0143	0243	0343	0443	D									
330.0	10%	15	0044	0144	0244	0344	0444	D									
330.0	20%	15	0045	0145	0245	0345	0445	D									

*See above for size chart.

• NEW PRODUCT

Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

Type CSR33 Solid Electrolytic Tantalum Capacitors



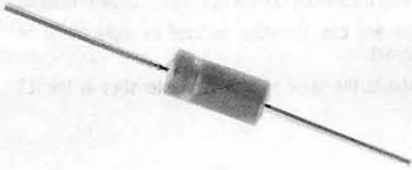
Type CSR33

Cap. (MFD)	Tol.	WVDC At +85°C	Part No. M38003/06- Failure rate level for (%/1,000 hrs)		*MIL Case Size
			M 1.0	• P 0.1%	
10.0	10%	6	0001	0101	A
10.0	20%	6	0002	0102	A
12.0	10%	6	0003	0103	A
100.0	10%	6	0004	0104	B
100.0	20%	6	0005	0105	B
330.0	10%	6	0006	0106	C
330.0	20%	6	0007	0107	C
390.0	10%	6	0008	0108	C
470.0	10%	6	0009	0109	C
470.0	20%	6	0010	0110	C
680.0	10%	6	0011	0111	D
680.0	20%	6	0012	0112	D
820.0	10%	6	0013	0113	D
1000.0	10%	6	0014	0114	D
1000.0	20%	6	0015	0115	D
6.8	10%	10	0016	0116	A
6.8	20%	10	0017	0117	A
8.2	10%	10	0018	0118	A
47.0	10%	10	0019	0119	B
47.0	20%	10	0020	0120	B
56.0	10%	10	0021	0121	B
68.0	10%	10	0022	0122	B
68.0	20%	10	0023	0123	B
82.0	10%	10	0024	0124	B
220.0	10%	10	0025	0125	C
220.0	20%	10	0026	0126	C
270.0	10%	10	0027	0127	C
390.0	10%	10	0028	0128	D
470.0	10%	10	0029	0129	D
470.0	20%	10	0030	0130	D
560.0	10%	10	0031	0131	D
4.7	10%	15	0032	0132	A
4.7	20%	15	0033	0133	A
5.6	10%	15	0034	0134	A
33.0	10%	15	0035	0135	B
33.0	20%	15	0036	0136	B
39.0	10%	15	0037	0137	B
150.0	10%	15	0038	0138	C
150.0	20%	15	0039	0139	C
180.0	10%	15	0040	0140	C
220.0	10%	15	0041	0141	D
220.0	20%	15	0042	0142	D
270.0	10%	15	0043	0143	D
330.0	10%	15	0044	0144	D
330.0	20%	15	0045	0145	D

Cap. (MFD)	Tol.	WVDC At +85°C	Part No. M39003/06- Failure rate level for (%/1,000 hrs)		*MIL Case Size
			M 1.0	• P 0.1%	
2.7	10%	20	0046	0146	A
3.3	10%	20	0047	0147	A
3.3	20%	20	0048	0148	A
3.9	10%	20	0049	0149	A
18.0	10%	20	0050	0150	B
22.0	10%	20	0051	0151	B
22.0	20%	20	0052	0152	B
27.0	10%	20	0053	0153	B
56.0	10%	20	0054	0154	C
68.0	10%	20	0055	0155	C
68.0	20%	20	0056	0156	C
82.0	10%	20	0057	0157	C
100.0	10%	20	0058	0158	C
100.0	20%	20	0059	0159	C
120.0	10%	20	0060	0160	C
150.0	10%	20	0061	0161	D
150.0	20%	20	0062	0162	D
180.0	10%	20	0063	0163	D
1.8	10%	35	0064	0164	A
8.2	10%	35	0065	0165	B
10.0	10%	35	0066	0166	B
10.0	20%	35	0067	0167	B
33.0	10%	35	0068	0168	C
33.0	20%	35	0069	0169	C
39.0	10%	35	0070	0170	C
47.0	10%	35	0071	0171	C
47.0	20%	35	0072	0172	C
56.0	10%	35	0073	0173	D
68.0	10%	35	0074	0174	D
68.0	20%	35	0075	0175	D
1.2	10%	50	0076	0176	A
1.5	10%	50	0077	0177	A
1.5	20%	50	0078	0178	A
5.6	10%	50	0079	0179	B
6.8	10%	50	0080	0180	B
6.8	20%	50	0081	0181	B
22.0	10%	50	0082	0182	C
22.0	20%	50	0083	0183	C
27.0	10%	50	0084	0184	C
33.0	10%	50	0085	0185	D
33.0	20%	50	0086	0186	D
39.0	10%	50	0087	0187	D

*See page 55 for size chart.

Liquid Electrolyte Tantalum Capacitors Type CTL



The CTL is an economical copper alloy case miniature, polarized, sintered tantalum anode, liquid electrolyte capacitor. These capacitors, available in three case sizes, exhibit high MFD-Volt rating to volume ratios. The CTL capacitors are equivalent to styles TLS except case material. Tol.: ±20%. Oper. Temp.: -55°C to +85°C (with full rated voltage) to +125°C (with proper voltage derating). Request bulletin 4-610, for complete specifications. For prices, refer to price sheet No. 360.

HIGHLIGHTS

Capacity range: 2.5-560 microfarads
 Voltage range: 6-125 WVDC
 Temperature range: -55°C to +125°C

Type CTL

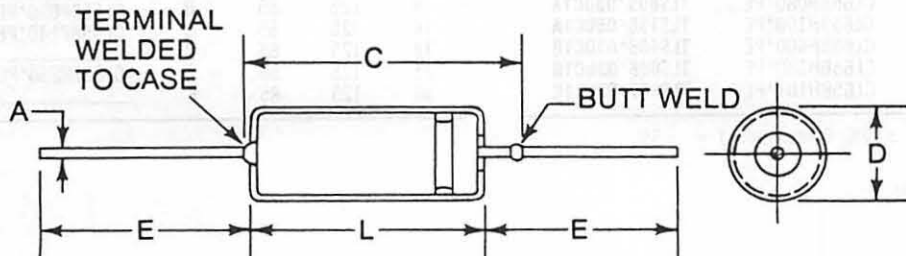
Cap. (μFD)	WVDC		Case Code	Catalog No.
	+85°C	+125°C		
68	6	4	A	CTL686M006P1A
560	6	4	C	CTL567M006P1C
47	10	7	A	CTL476M010P1A
180	10	7	B	CTL187M010P1B
15	15	10	A	CTL156M015P1A
120	15	10	B	CTL127M015P1B
170	15	10	C	CTL177M015P1C
270	15	10	C	CTL277M015P1C
10	25	15	A	CTL106M025P1A
22	25	15	A	CTL226M025P1A
100	25	15	B	CTL107M025P1B
180	25	15	C	CTL187M025P1C
8	30	20	A	CTL805M030P1A
15	30	20	A	CTL156M030P1A
40	30	20	B	CTL406M030P1B
100	30	20	C	CTL107M030P1C
150	30	20	C	CTL157M030P1C
5	50	30	A	CTL505M050P1A
10	50	30	A	CTL106M050P1A
25	50	30	B	CTL256M050P1B
47	50	30	B	CTL476M050P1B
82	50	30	C	CTL826M050P1C
4	60	40	A	CTL405M060P1A
39	60	40	B	CTL396M060P1B
50	60	40	C	CTL506M060P1C
3.5	75	50	A	CTL355M075P1A
6.8	75	50	A	CTL685M075P1A
15	75	50	B	CTL156M075P1B
33	75	50	B	CTL336M075P1B
56	75	50	C	CTL566M075P1C
2.5	100	65	A	CTL255M100P1A
22	100	65	B	CTL226M100P1B
43	100	65	C	CTL436M100P1C
3.6	125	85	A	CTL365M125P1A
14	125	85	B	CTL146M125P1B

**CL66/67 — CLR65-CLR69 — TLW
 ‡TLS, TLH; CTL CASE CODE CHART**

Case		Uninsulated		Insulated		Overall C	Lead Dia. A Inch	Lead Lgth. E Awg	±.250
		D	L	D	L				
		Mil	±.016	+.031, -.016	Max.				
A	T1	.188	.453	.219	.608	.734	.025	#22	1.50
B	T2	.281	.641	.312	.796	.922	.025	#22	2.25
C	T3	.375	.766	.406	.921	1.047	.025	#22	2.25
F	T4	.375	1.062	.406	1.217	1.343	.025	#22	2.25

DIMENSIONS (MILLIMETERS)

Case		Uninsulated		Insulated		Overall C	Lead Dia. A MM	Lead Lgth. E Awg	±6.35
		D	L	D	L				
		Mil	±.41	+.79, -.41	Max.				
A	T1	4.78	11.51	5.56	15.45	18.64	.64	#22	38.10
B	T2	7.41	16.28	7.92	20.22	23.41	.64	#22	57.15
C	T3	9.53	19.46	10.31	23.40	26.59	.64	#22	57.15
F	T4	9.53	26.97	10.31	30.91	34.11	.64	#22	57.15

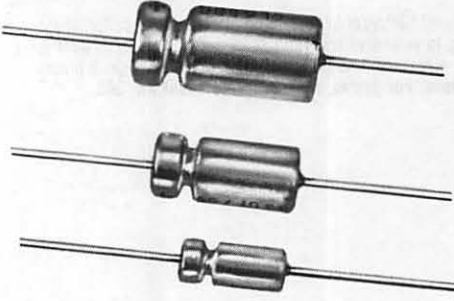


Consult your local Mallory distributor for price information.

Type TLS (CL64/65) and TLH Liquid Electrolyte Tantalum Capacitors



Extended Range



Type TLS is the commercial version of MIL-C-3965/4. Type CL64/65 is a cancelled military specification and is no longer recommended for new design. Mallory will continue to supply parts labeled with the Military CL64 or CL65 designation on request.

The Mallory TLS meets all the requirements of the Military specification and can, therefore, be used as replacement for applications in the field where the CL64/65 was used in original equipment.

Type TLH is an extended range version of the TLS capacitor. The TLH exhibits the same physical characteristics as the TLS however, provides higher capacity per case size.

Type TLS-TLH exhibit very high performance and very low DCL.

Temperature range: -55°C to +85°C and +125°C with derating.

Tolerances: ±10% (K); ±20% (M); Standard; ±5% (J) Available on special order. Types listed are in insulating Mylar® sleeves. For uninsulated part change 12th digit in TLS part number to an "0". Request bulletin No. 4-604, for complete specifications. For prices, request price sheet No. 390. Replaces 109D; 130D; LNW; 69F.

HIGHLIGHTS

Capacity range: 1.7-1200 microfarad

Voltage range: 6-75 WVDC

Temperature range: -55°C to +125°C

Type TLS

Cap. (MFD)	WVDC		Case Code‡	MIL-C-3965/4 Reference No.	Catalog No.	Cap. (MFD)	WVDC		Case Code‡	MIL-C-3965/4 Reference No.	Catalog No.
	+85°C	+125°C					+85°C	+125°C			
30	6	4	A	CL65BB300*PE	TLS306*006C1A	150	30	20	C	CL65BH151*PE	TLS157*030C1C
68	6	4	A	CL65BB680*PE	TLS686*006C1A	300	30	20	F		TLS307*030C1F
140	6	4	B	CL65BB141*PE	TLS147*006C1B	5	50	30	A	CL65BJ050*PE	TLS505*050C1A
270	6	4	B	CL65BB271*PE	TLS277*006C1B	10	50	30	A	CL65BJ100*PE	TLS106*050C1A
330	6	4	C	CL65BB331*PE	TLS337*006C1C	25	50	30	B	CL65BJ250*PE	TLS256*050C1B
560	6	4	C	CL65BB561*PE	TLS567*006C1C	47	50	30	B	CL65BJ470*PE	TLS476*050C1B
1,200	6	4	F		TLS128*006C1F	60	50	30	C	CL65BJ600*PE	TLS606*050C1C
25	8	5	A	CL65BC250*PE	TLS256*008C1A	82	50	30	C	CL65BJ820*PE	TLS826*050C1C
56	8	5	A	CL65BC560*PE	TLS566*008C1A	160	50	30	F		TLS167*050C1F
220	8	5	B	CL65BC221*PE	TLS227*008C1B	4	60	40	A	CL65BK040*PE	TLS405*060C1A
430	8	5	C	CL65BC431*PE	TLS437*008C1C	8.2	60	40	A	CL65BK8R2*PE	TLS825*060C1A
850	8	5	F		TLS857*008C1F	20	60	40	B	CL65BK200*PE	TLS206*060C1B
20	10	7	A	CL65BD200*PE	TLS206*010C1A	39	60	40	B	CL65BK390*PE	TLS396*060C1B
47	10	7	A	CL65BD470*PE	TLS476*010C1A	50	60	40	C	CL65BK500*PE	TLS506*060C1C
100	10	7	B	CL65BD101*PE	TLS107*010C1B	68	60	40	C	CL65BK680*PE	TLS686*060C1C
180	10	7	B	CL65BD181*PE	TLS187*010C1B	140	60	40	F		TLS147*060C1F
250	10	7	C	CL65BD251*PE	TLS257*010C1C	3.5	75	50	A	CL65BL3R5*PE	TLS355*075C1A
390	10	7	C	CL65BD391*PE	TLS397*010C1C	6.8	75	50	A	CL65BL6R8*PE	TLS685*075C1A
750	10	7	F		TLS757*010C1F	15	75	50	B	CL65BL150*PE	TLS156*075C1B
15	15	10	A	CL65BE150*PE	TLS156*015C1A	33	75	50	B	CL65BL330*PE	TLS336*075C1B
33	15	10	A	CL65BE330*PE	TLS336*015C1A	40	75	50	C	CL65BL400*PE	TLS406*075C1C
70	15	10	B	CL65BE700*PE	TLS706*015C1B	56	75	50	C	CL65BL560*PE	TLS566*075C1C
120	15	10	B	CL65BE121*PE	TLS127*015C1B	110	75	50	F		TLS117*075C1F
170	15	10	C	CL65BE171*PE	TLS177*015C1C	2.5	100	65	A	CL65BN2R5*PE	TLS255*100C1A
270	15	10	C	CL65BE271*PE	TLS277*015C1C	4.7	100	65	A	CL65BN4R7*PE	TLS475*100C1A
540	15	10	F		TLS547*015C1F	11	100	65	B	CL65BN110*PE	TLS116*100C1B
10	25	15	A	CL65BG100*PE	TLS106*025C1A	22	100	65	B	CL65BN220*PE	TLS226*100C1B
22	25	15	A	CL65BG220*PE	TLS226*025C1A	30	100	65	C	CL65BN330*PE	TLS306*100C1C
100	25	15	B	CL65BG101*PE	TLS107*025C1B	43	100	65	C	CL65BN430*PE	TLS436*100C1C
180	25	15	C	CL65BG181*PE	TLS187*025C1C	86	100	65	F		TLS866*100C1F
350	25	15	F		TLS357*025C1F	1.7	125	85	A	CL65BP1R7*PE	TLS175*125C1A
8	30	20	A	CL65BH080*PE	TLS805*030C1A	3.6	125	85	A	CL65BP3R6*PE	TLS365*125C1A
15	30	20	A	CL65BH150*PE	TLS156*030C1A	9	125	85	B	CL65BP090*PE	TLS905*125C1B
40	30	20	B	CL65BH400*PE	TLS406*030C1B	14	125	85	B	CL65BP140*PE	TLS146*125C1B
68	30	20	B	CL65BH180*PE	TLS686*030C1B	18	125	85	C		TLS186*125C1C
100	30	20	C	CL65BH101*PE	TLS107*030C1C	25	125	85	C	CL65BP250*PE	TLS256*125C1C
						56	125	85	F		TLS566*125C1F

*Specify Tolerance: K = ±10%; M = ±20%; Special order J = ±5%.

®DuPont Trademark.

‡See page 57 for case code identification.

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

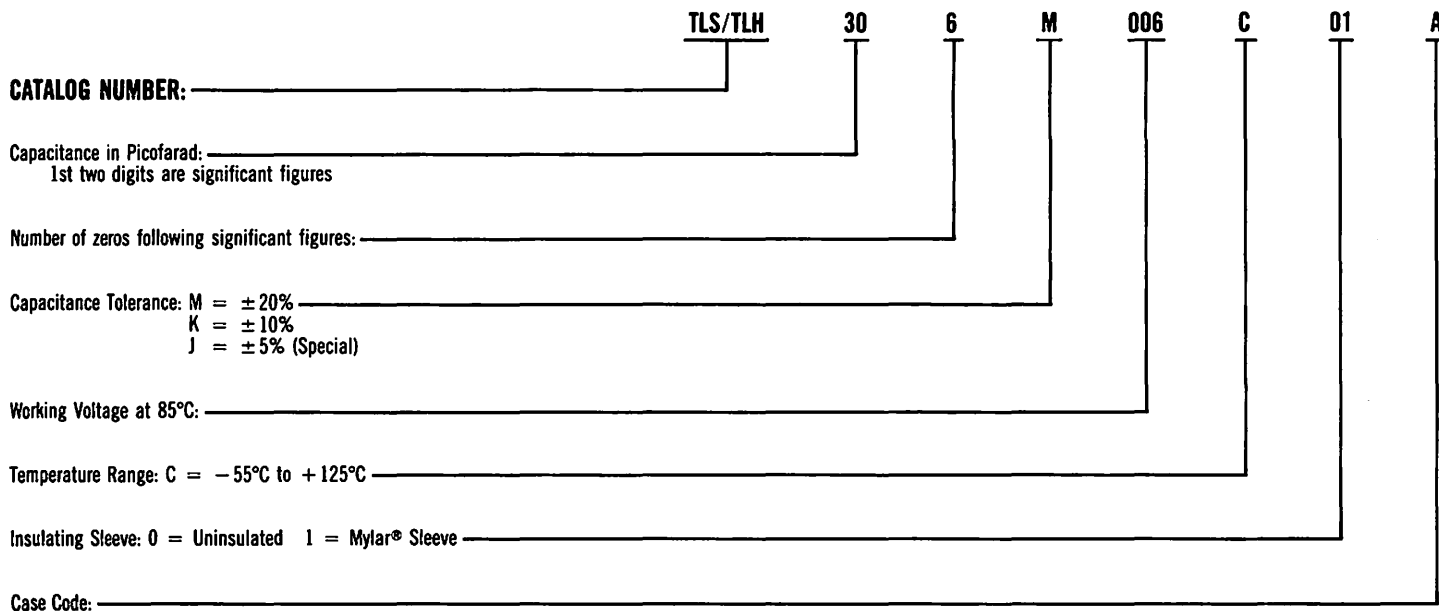
Type TLH

Cap. (MFD)	WVDC		Case Code†	Catalog No.
	+85°C	+125°C		
220	6	4	A	TLH227*006C1A
820	6	4	B	TLH827*006C1B
1500	6	4	C	TLH158*006C1C
2200	6	4	F	TLH228*006C1F
180	8	5	A	TLH187*008C1A
680	8	5	B	TLH687*008C1B
1500	8	5	C	TLH158*008C1C
1800	8	5	F	TLH188*008C1F
150	10	7	A	TLH157*010C1A
560	10	7	B	TLH567*010C1B
1200	10	7	C	TLH128*010C1C
1500	10	7	F	TLH158*010C1F
100	15	10	A	TLH107*015C1A
390	15	10	B	TLH397*015C1B
820	15	10	C	TLH827*015C1C
1000	15	10	F	TLH108*015C1F
68	25	15	A	TLH686*025C1A
270	25	15	B	TLH277*025C1B

Cap. (MFD)	WVDC		Case Code†	Catalog No.
	+85°C	+125°C		
560	25	15	C	TLH567*025C1C
680	25	15	F	TLH687*025C1F
56	30	20	A	TLH566*030C1A
220	30	20	B	TLH227*030C1B
470	30	20	C	TLH477*030C1C
560	30	20	F	TLH567*030C1F
33	50	30	A	TLH336*050C1A
120	50	30	B	TLH127*050C1B
270	50	30	C	TLH277*050C1C
330	50	30	F	TLH337*050C1F
27	60	40	A	TLH276*060C1A
100	60	40	B	TLH107*060C1B
220	60	40	C	TLH227*060C1C
270	60	40	F	TLH277*060C1F
22	75	50	A	TLH226*075C1A
82	75	50	B	TLH826*075C1B
180	75	50	C	TLH187*075C1C
220	75	50	F	TLH227*075C1F

*Specify Tolerance: K = ±10%; M = ±20%; Special order J = ±5%.
 †See page 57 for case code identification.

ORDERING INFORMATION



*DuPont Trademark

Consult your local Mallory distributor for price information.

Type CL66/67 Liquid Electrolyte Tantalum Capacitors



The Mallory Type CL66/67 is designed to meet all requirements of MIL-C-3965 specifications. Request bulletin 4-613 for complete specifications. For pricing contact factory.

MIL-C-3965/24 STYLE CL66 & CL67

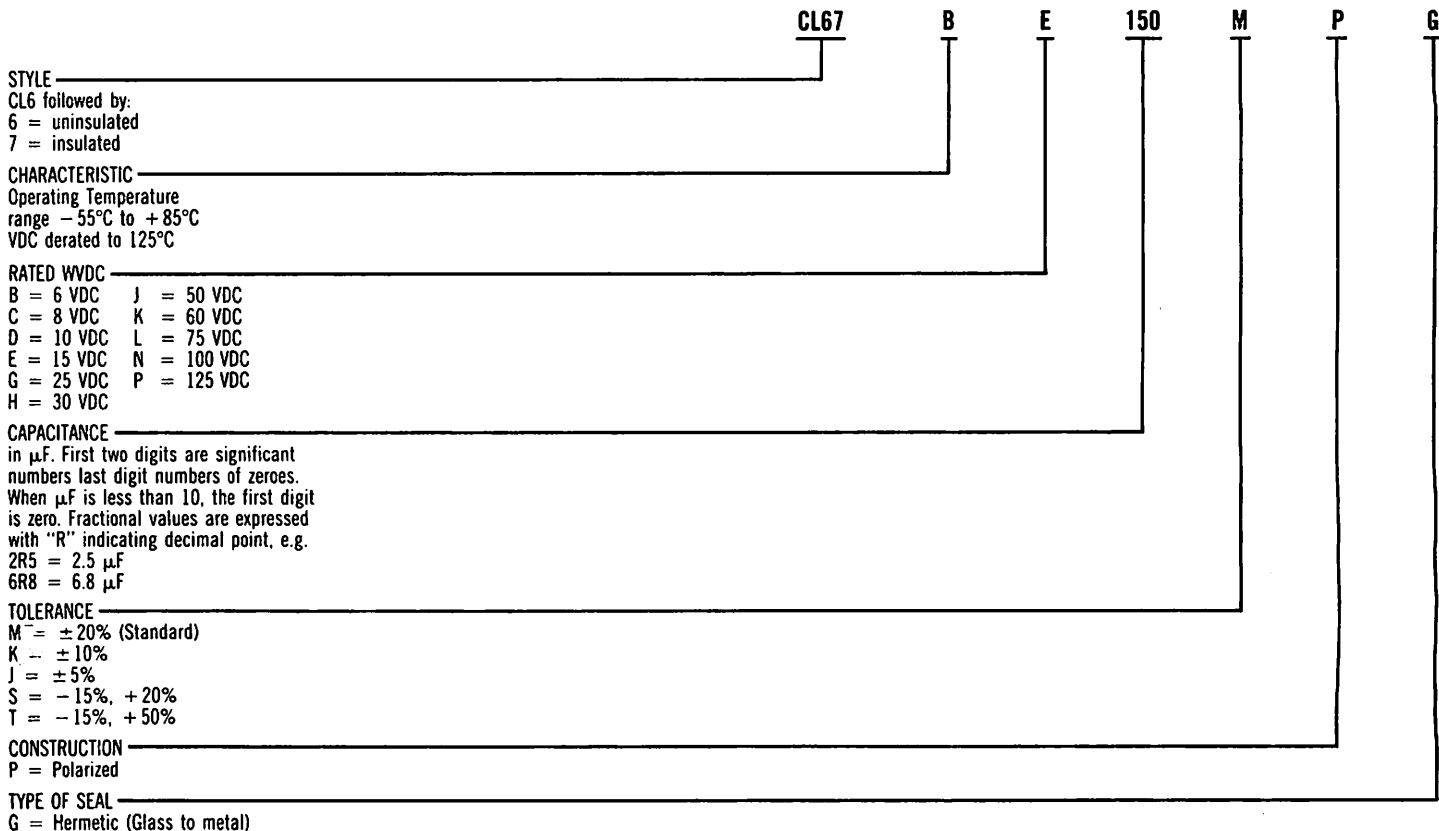
Cap. μ F	Rated	Voltage + 125°C	*Case Code	Catalog Number
30	6	4	T1	CL67BB300*PG
68	6	4	T1	CL67BB680*PG
140	6	4	T2	CL67BB141*PG
270	6	4	T2	CL67BB271*PG
330	6	4	T2	CL67BB331*PG
560	6	4	T3	CL67BB561*PG
25	8	5	T1	CL67BC250*PG
56	8	5	T1	CL67BC560*PG
220	8	5	T2	CL67BC221*PG
430	8	5	T3	CL67BC431*PG
20	10	7	T1	CL67BD200*PG
47	10	7	T1	CL67BD470*PG
100	10	7	T2	CL67BD101*PG
180	10	7	T2	CL67BD181*PG
250	10	7	T3	CL67BD251*PG
390	10	7	T3	CL67BD391*PG
15	15	10	T1	CL67BE150*PG
33	15	10	T1	CL67BE330*PG
70	15	10	T2	CL67BE700*PG
120	15	10	T2	CL67BE121*PG

Cap. μ F	Rated	Voltage + 125°C	*Case Code	Catalog Number
170	15	10	T3	CL67BE171*PG
270	15	10	T3	CL67BE271*PG
10	25	15	T1	CL67BG100*PG
22	25	15	T1	CL67BG220*PG
100	25	15	T2	CL67BG101*PG
180	25	15	T3	CL67BG181*PG
8	30	20	T1	CL67BH080*PG
15	30	20	T1	CL67BH150*PG
40	30	20	T2	CL67BH400*PG
68	30	20	T2	CL67BH680*PG
100	30	20	T3	CL67BH101*PG
150	30	20	T3	CL67BH151*PG
5	50	30	T1	CL67BJ050*PG
10	50	30	T1	CL67BJ100*PG
25	50	30	T2	CL67BJ250*PG
47	50	30	T2	CL67BJ470*PG
60	50	30	T3	CL67BJ600*PG
82	50	30	T3	CL67BJ820*PG
4	60	40	T1	CL67BK040*PG
8.2	60	40	T1	CL67BK820*PG

Cap. μ F	Rated	Voltage + 125°C	*Case Code	Catalog Number
20	60	40	T2	CL67BK200*PG
39	60	40	T2	CL67BK390*PG
50	60	40	T3	CL67BK500*PG
68	60	40	T3	CL67BK680*PG
3.5	75	50	T1	CL67BL3R5*PG
6.8	75	50	T1	CL67BL6R8*PG
15	75	50	T2	CL67BL150*PG
33	75	50	T2	CL67BL330*PG
40	75	50	T3	CL67BL400*PG
56	75	50	T3	CL67BL560*PG
2.5	100	65	T1	CL67BN2R5*PG
4.7	100	65	T1	CL67BN4R7*PG
11	100	65	T2	CL67BN110*PG
22	100	65	T2	CL67BN220*PG
30	100	65	T3	CL67BN300*PG
43	100	65	T3	CL67BN430*PG
1.7	125	85	T1	CL67BP1R7*PG
3.6	125	85	T1	CL67BP3R6*PG
9	125	85	T2	CL67BP090*PG
14	125	85	T2	CL67BP140*PG
25	125	85	T3	CL67BP250*PG

*Specify Tolerance M = $\pm 20\%$ (Standard); K = $\pm 10\%$; J = $\pm 5\%$; S = -15%, +20%; T = -15%, +50%.

PART NUMBERING SYSTEM MIL-C-3965 STYLE CL66, CL67



NEW PRODUCT

Consult your local Mallory distributor for price information.

*See page 57, for case code identification.

• Miniature Wet Slug Tantalum Capacitor Type TLW



The TLW is the same design and construction as the Mallory TLX which meets the high reliability specifications of MIL-C-39006/9. The glass to metal hermetic seal allows high temperature operation to 175°C (with proper derating). Rugged internal construction will withstand severe shock and vibration. Request bulletin No. 4-611B for complete specifications. For pricing contact factory. Replaces 137D, 138D, 40GW, 40SW, 69F3000, SNW.

HIGHLIGHTS

Capacitance Range—1.7 to 1,200 μ F
 Voltage—6–100 WVDC
 Temperature Range— -55°C to +125°C

STANDARD RATINGS FOR TLW

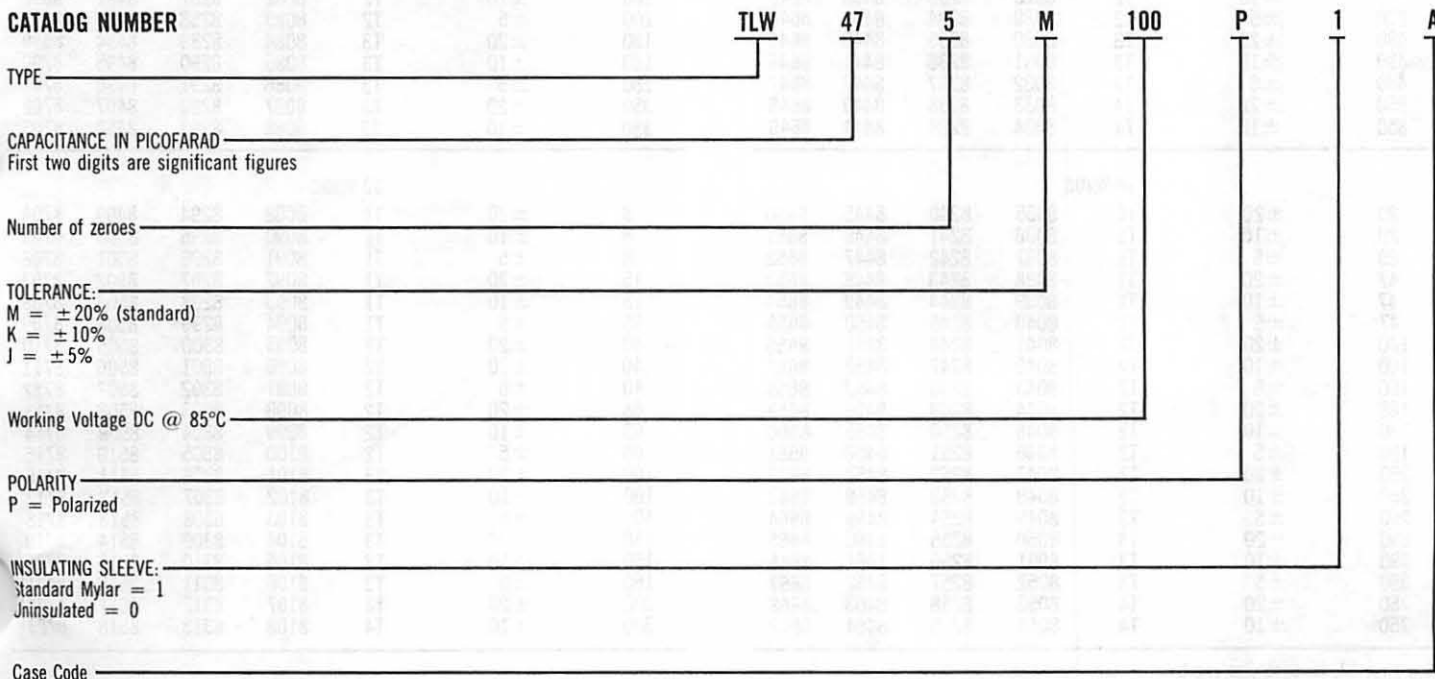
Cap. μ	WVDC		*Case Code	Catalog Number
	+85°C	+125°C		
30	6	4	A	TLW306M006P1A
68	6	4	A	TLW686M006P1A
140	6	4	B	TLW147M006P1B
270	6	4	B	TLW277M006P1B
330	6	4	C	TLW337M006P1C
560	6	4	C	TLW567M006P1C
1200	6	4	F	TLW128M006P1F
25	8	5	A	TLW256M008P1A
56	8	5	A	TLW566M008P1A
220	8	5	B	TLW227M008P1B
430	8	5	C	TLW437M008P1C
850	8	5	F	TLW857M008P1F
20	10	7	A	TLW206M010P1A
47	10	7	A	TLW476M010P1A
100	10	7	B	TLW107M010P1B
180	10	7	B	TLW187M010P1B
250	10	7	C	TLW257M010P1C
390	10	7	C	TLW397M010P1C
750	10	7	F	TLW757M010P1F
15	15	10	A	TLW156M015P1A
33	15	10	A	TLW336M015P1A
70	15	10	B	TLW706M015P1B
120	15	10	B	TLW127M015P1B
170	15	10	C	TLW177M015P1C
270	15	10	C	TLW277M015P1C
540	15	10	F	TLW547M015P1F

Cap. μ	WVDC		*Case Code	Catalog Number
	+85°C	+125°C		
10	25	15	A	TLW106M025P1A
22	25	15	A	TLW226M025P1A
47	25	15	A	TLW476M025P1A
100	25	15	B	TLW107M025P1B
180	25	15	C	TLW187M025P1C
350	25	15	F	TLW357M025P1F
8	30	20	A	TLW805M030P1A
15	30	20	A	TLW156M030P1A
40	30	20	B	TLW406M030P1B
68	30	20	B	TLW686M030P1B
100	30	20	C	TLW107M030P1C
150	30	20	C	TLW157M030P1C
300	30	20	F	TLW307M030P1F
5	50	30	A	TLW505M050P1A
10	50	30	A	TLW106M050P1A
22	50	30	A	TLW226M050P1A
25	50	30	B	TLW256M050P1B
47	50	30	B	TLW476M050P1B
60	50	30	C	TLW606M050P1C
82	50	30	C	TLW826M050P1C
160	50	30	F	TLW167M050P1F
4	60	40	A	TLW405M060P1A
8.2	60	40	A	TLW825M060P1A
20	60	40	B	TLW206M060P1B
39	60	40	B	TLW396M060P1B

Cap. μ	WVDC		*Case Code	Catalog Number
	+85°C	+125°C		
50	60	40	C	TLW506M060P1C
68	60	40	C	TLW686M060P1C
140	60	40	F	TLW147M060P1F
3.5	75	50	A	TLW355M075P1A
6.8	75	50	A	TLW685M075P1A
15	75	50	B	TLW156M075P1B
33	75	50	B	TLW336M075P1B
40	75	50	C	TLW406M075P1C
56	75	50	C	TLW566M075P1C
110	75	50	F	TLW117M075P1F
2.5	100	65	A	TLW255M100P1A
4.7	100	65	A	TLW475M100P1A
11	100	65	B	TLW116M100P1B
22	100	65	B	TLW226M100P1B
30	100	65	C	TLW306M100P1C
43	100	65	C	TLW436M100P1C
86	100	65	F	TLW866M100P1F

ORDERING INFORMATION

CATALOG NUMBER



TYPE — TLW

CAPACITANCE IN PICOFARAD — 47
 First two digits are significant figures

Number of zeroes — 5

TOLERANCE: — M
 M = $\pm 20\%$ (standard)
 K = $\pm 10\%$
 J = $\pm 5\%$

Working Voltage DC @ 85°C — 100

POLARITY — P
 P = Polarized

INSULATING SLEEVE: — 1
 Standard Mylar = 1
 Jinsulated = 0

Case Code — A

•NEW PRODUCT

Consult your local Mallory distributor for price information.

*See page 57, for case code identification.

Type CLR65 Liquid Electrolyte Tantalum Capacitors



Established Reliability type CLR65, meets all requirements of MIL-C-39006 specification. These sintered anode tantalum capacitors are hermetically sealed with a plastic insulating sleeve. Stored and marked in compliance with MIL-STD-790. Failure rate level to "R". To order: Indicate type CLR65, then specify 4-digit dash number which corresponds with desired tolerance and failure rate level. (Example—CLR658206 = 30 μ F/6 VDC \pm 20% "M" Level). Request bulletin 4-612, for complete specifications. For pricing refer to price sheet No. 340 ("L"), 341 ("M"), 342 ("P"), 343 ("R"). Replaces TLX, 138D.



HIGHLIGHTS

Capacitance Range—1.7 to 1,200 μ F
 Voltage—6—125 WVDC
 Temperature Range— -55°C to +85°C

Cap. μ F	Cap. tolerance percent	†MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.1%)
6 WVDC						
30	\pm 20	T1	8001	8206	8411	8616
30	\pm 10	T1	8002	8207	8412	8617
30	\pm 5	T1	8003	8208	8413	8618
68	\pm 20	T1	8004	8209	8414	8619
68	\pm 10	T1	8005	8210	8415	8620
68	\pm 5	T1	8006	8211	8416	8621
140	\pm 20	T2	8007	8212	8417	8622
140	\pm 10	T2	8008	8213	8418	8623
140	\pm 5	T2	8009	8214	8419	8624
270	\pm 20	T2	8010	8215	8420	8625
270	\pm 10	T2	8011	8216	8421	8626
270	\pm 5	T2	9012	8217	8422	8627
330	\pm 20	T3	8013	8218	8423	8628
330	\pm 10	T3	8014	8219	8424	8629
330	\pm 5	T3	8015	8220	8425	8630
560	\pm 20	T3	8016	8221	8426	8631
560	\pm 10	T3	8017	8222	8427	8632
560	\pm 5	T3	8018	8223	8428	8633
1200	\pm 20	T4	8019	8224	8429	8634
1200	\pm 10	T4	8020	8225	8430	8635

Cap. μ F	Cap. tolerance percent	†MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.1%)
15 WVDC						
15	\pm 20	T1	8055	8260	8465	8670
15	\pm 10	T1	8056	8261	8466	8671
15	\pm 5	T1	8057	8262	8467	8672
33	\pm 20	T1	8058	8263	8468	8673
33	\pm 10	T1	8059	8264	8469	8674
33	\pm 5	T1	8060	8265	8470	8675
70	\pm 20	T2	8061	8266	8471	8676
70	\pm 10	T2	8062	8267	8472	8677
70	\pm 5	T2	8063	8268	8473	8678
120	\pm 20	T2	8064	8269	8474	8679
120	\pm 10	T2	8065	8270	8475	8680
120	\pm 5	T2	8066	8271	8476	8681
170	\pm 20	T3	8067	8272	8477	8682
170	\pm 10	T3	8068	8273	8478	8683
170	\pm 5	T3	8069	8274	8479	8684
270	\pm 20	T3	8070	8275	8480	8685
270	\pm 10	T3	8071	8276	8481	8686
270	\pm 5	T3	8072	8277	8482	8687
540	\pm 20	T4	8073	8278	8483	8688
540	\pm 10	T4	8074	8279	8484	8689

Cap. μ F	Cap. tolerance percent	†MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.1%)
8 WVDC						
25	\pm 20	T1	8021	8226	8431	8636
25	\pm 10	T1	8022	8227	8432	8637
25	\pm 5	T1	8023	8228	8433	8638
56	\pm 20	T1	8024	8229	8434	8639
56	\pm 10	T1	8025	8230	8435	8640
56	\pm 5	T1	8026	8231	8436	8641
220	\pm 20	T2	8027	8232	8437	8642
220	\pm 10	T2	8028	8233	8438	8643
220	\pm 5	T2	8029	8234	8439	8644
430	\pm 20	T3	8030	8235	8440	8645
430	\pm 10	T3	8031	8236	8441	8646
430	\pm 5	T3	8032	8237	8442	8647
850	\pm 20	T4	8033	8238	8443	8648
850	\pm 10	T4	8034	8239	8444	8649

Cap. μ F	Cap. tolerance percent	†MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.1%)
25 WVDC						
10	\pm 20	T1	8075	8280	8485	8690
10	\pm 10	T1	8076	8281	8486	8691
10	\pm 5	T1	8077	8282	8487	8692
22	\pm 20	T1	8078	8283	8488	8693
22	\pm 10	T1	8079	8284	8489	8694
22	\pm 5	T1	8080	8285	8490	8695
100	\pm 20	T2	8081	8286	8491	8696
100	\pm 10	T2	8082	8287	8492	8697
100	\pm 5	T2	8083	8288	8493	8698
180	\pm 20	T3	8084	8289	8494	8699
180	\pm 10	T3	8085	8290	8495	8700
180	\pm 5	T3	8086	8291	8496	8701
350	\pm 20	T3	8087	8292	8497	8702
350	\pm 10	T3	8088	8293	8498	8703

Cap. μ F	Cap. tolerance percent	†MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.1%)
10 WVDC						
20	\pm 20	T1	8035	8240	8445	8650
20	\pm 10	T1	8036	8241	8446	8651
20	\pm 5	T1	8037	8242	8447	8652
47	\pm 20	T1	8038	8243	8448	8653
47	\pm 10	T1	8039	8244	8449	8654
47	\pm 5	T1	8040	8245	8450	8655
100	\pm 20	T2	8041	8246	8451	8656
100	\pm 10	T2	8042	8247	8452	8657
100	\pm 5	T2	8043	8248	8453	8658
180	\pm 20	T2	8044	8249	8454	8659
180	\pm 10	T2	8045	8250	8455	8660
180	\pm 5	T2	8046	8251	8456	8661
250	\pm 20	T3	8047	8252	8457	8662
250	\pm 10	T3	8048	8253	8458	8663
250	\pm 5	T3	8049	8254	8459	8664
390	\pm 20	T3	8050	8255	8460	8665
390	\pm 10	T3	8051	8256	8461	8666
390	\pm 5	T3	8052	8257	8462	8667
750	\pm 20	T4	8053	8258	8463	8668
750	\pm 10	T4	8054	8259	8464	8669

Cap. μ F	Cap. tolerance percent	†MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.1%)
30 WVDC						
8	\pm 20	T1	8089	8294	8499	8704
8	\pm 10	T1	8090	8295	8500	8705
8	\pm 5	T1	8091	8296	8501	8706
15	\pm 20	T1	8092	8297	8502	8707
15	\pm 10	T1	8093	8298	8503	8708
15	\pm 5	T1	8094	8299	8504	8709
40	\pm 20	T2	8095	8300	8505	8710
40	\pm 10	T2	8096	8301	8506	8711
40	\pm 5	T2	8097	8302	8507	8712
68	\pm 20	T2	8098	8303	8508	8713
68	\pm 10	T2	8099	8304	8509	8714
68	\pm 5	T2	8100	8305	8510	8715
100	\pm 20	T3	8101	8306	8511	8716
100	\pm 10	T3	8102	8307	8512	8717
100	\pm 5	T3	8103	8308	8513	8718
150	\pm 20	T3	8104	8309	8514	8719
150	\pm 10	T3	8105	8310	8515	8720
150	\pm 5	T3	8106	8311	8516	8721
300	\pm 20	T4	8107	8312	8517	8722
300	\pm 10	T4	8108	8313	8518	8723

†See page 57, for case size chart.

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Liquid Electrolyte Tantalum Capacitors Type CLR65

Cap. μ F	Cap. tolerance percent	MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.01%)
50 WVDC						
5	± 20	T1	8109	8314	8519	8724
5	± 10	T1	8110	8315	8520	8725
5	± 5	T1	8111	8316	8521	8726
10	± 20	T1	8112	8317	8522	8727
10	± 10	T1	8113	8318	8523	8728
10	± 5	T1	8114	8319	8524	8729
25	± 20	T2	8115	8320	8525	8730
25	± 10	T2	8116	8321	8526	8731
25	± 5	T2	8117	8322	8527	8732
47	± 20	T2	8118	8323	8528	8733
47	± 10	T2	8119	8324	8529	8734
47	± 5	T2	8120	8325	8530	8735
60	± 20	T3	8121	8326	8531	8736
60	± 10	T3	8122	8327	8532	8737
60	± 5	T3	8123	8328	8533	8738
82	± 20	T3	8124	8329	8534	8739
82	± 10	T3	8125	8330	8535	8740
82	± 5	T3	8126	8331	8536	8741
160	± 20	T4	8127	8332	8537	8742
160	± 10	T4	8128	8333	8538	8743

60 WVDC						
4	± 20	T1	8129	8334	8539	8744
4	± 10	T1	8130	8335	8540	8745
4	± 5	T1	8131	8336	8541	8746
8.2	± 20	T1	8132	8337	8542	8747
8.2	± 10	T1	8133	8338	8543	8748
8.2	± 5	T1	8134	8339	8544	8749
20	± 20	T2	8135	8340	8545	8750
20	± 10	T2	8136	8341	8546	8751
20	± 5	T2	8137	8342	8547	8752
39	± 20	T2	8138	8343	8548	8753
39	± 10	T2	8139	8344	8549	8754
39	± 5	T2	8140	8345	8550	8755
50	± 20	T3	8141	8346	8551	8756
50	± 10	T3	8142	8347	8552	8757
50	± 5	T3	8143	8348	8553	8758
68	± 20	T3	8144	8349	8554	8759
68	± 10	T3	8145	8350	8555	8760
68	± 5	T3	8146	8351	8556	8761
140	± 20	T4	8147	8352	8557	8762
140	± 10	T4	8148	8353	8558	8763

75 WVDC						
3.5	± 20	T1	8149	8354	8559	8764
3.5	± 10	T1	8150	8355	8560	8765
3.5	± 5	T1	8151	8356	8561	8766
6.8	± 20	T1	8152	8357	8562	8767
6.8	± 10	T1	8153	8358	8563	8768
6.8	± 5	T1	8154	8359	8564	8769
15	± 20	T2	8155	8360	8565	8770
15	± 10	T2	8156	8361	8566	8771
15	± 5	T2	8157	8362	8567	8772
33	± 20	T2	8158	8363	8568	8773

Cap. μ F	Cap. tolerance percent	MIL Case Code	Part No. M39006/09D			
			Failure rate level (%/1,000 hr)			
			L(2.0%)	M(1.0%)	P(0.1%)	R(0.01%)
75 WVDC (Continued)						
33	± 10	T2	8159	8364	8569	8774
33	± 5	T2	8160	8365	8570	8775
40	± 20	T3	8161	8366	8571	8776
40	± 10	T3	8162	8367	8572	8777
40	± 5	T3	8163	8368	8573	8778
56	± 20	T3	8164	8369	8574	8779
56	± 10	T3	8165	8370	8575	8780
56	± 5	T3	8166	8371	8576	8781
110	± 20	T4	8167	8372	8577	8782
110	± 10	T4	8168	8373	8578	8783

100 WVDC						
2.5	± 20	T1	8169	8374	8579	8784
2.5	± 10	T1	8170	8375	8580	8785
2.5	± 5	T1	8171	8376	8581	8786
4.7	± 20	T1	8172	8377	8582	8787
4.7	± 10	T1	8173	8378	8583	8788
4.7	± 5	T1	8174	8379	8584	8789
11	± 20	T2	8175	8380	8585	8790
11	± 10	T2	8176	8381	8586	8791
11	± 5	T2	8177	8382	8587	8792
22	± 20	T2	8178	8383	8588	8793
22	± 10	T2	8179	8384	8589	8794
22	± 5	T2	8180	8385	8590	8795
30	± 20	T3	8181	8386	8591	8796
30	± 10	T3	8182	8387	8592	8797
30	± 5	T3	8183	8388	8593	8798
43	± 20	T4	8184	8389	8594	8799
43	± 10	T4	8185	8390	8595	8800
43	± 5	T4	8186	8391	8596	8801
86	± 20	T4	8187	8392	8597	8802
86	± 10	T4	8188	8393	8598	8803

125 WVDC						
1.7	± 20	T1	8189	8394	8599	8804
1.7	± 10	T1	8190	8395	8600	8805
1.7	± 5	T1	8191	8396	8601	8806
3.6	± 20	T1	8192	8397	8602	8807
3.6	± 10	T1	8193	8398	8603	8808
3.6	± 5	T1	8194	8399	8604	8809
9	± 20	T2	8195	8400	8605	8810
9	± 10	T2	8196	8401	8606	8811
9	± 5	T2	8197	8402	8607	8812
14	± 20	T2	8198	8403	8608	8813
14	± 10	T2	8199	8404	8609	8814
14	± 5	T2	8200	8405	8610	8815
18	± 20	T3	8201	8406	8611	8816
18	± 10	T3	8202	8407	8612	8817
18	± 5	T3	8203	8408	8613	8818
25	± 20	T3	8204	8409	8614	8819
25	± 10	T3	8205	8410	8615	8820
25	± 5	T3	9026	9029	9032	9035
56	± 20	T4	9027	9030	9033	9036
56	± 10	T4	9028	9031	9034	9037

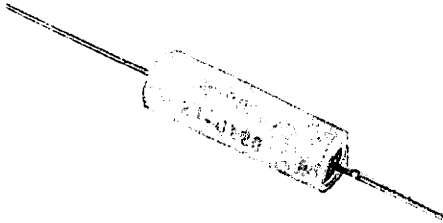
†See page 57, for case size chart.

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

Type CLR69 Liquid Electrolyte Tantalum Capacitors

MALLORY



Established Reliability type CLR69, meets all requirements of MIL-C-39006 specification. These sintered anode tantalum capacitors are hermetically sealed with a plastic insulating sleeve. Stored and marked in compliance with MIL-STD-790. Failure rate level to "P". To order: Indicate type CLR69, then specify 4-digit dash number which corresponds with desired tolerance and failure rate level. (Example—CLR690089 = 220 μ F/6 VDC \pm 20% "M" level). Request bulletin 4-612 for complete specifications. For pricing refer to price sheet No. 345 ("L"), 346 ("M"), 342 ("P"). Replaces TXX.

HIGHLIGHTS

Capacitance Range—10 to 2,200 μ F
Voltage—6—125 WVDC
Temperature Range— -55°C to +85°C

Cap. μ F	Cap. tolerance percent	MIL Case Code	Part No. M39006/21		
			Failure rate level (1%/1,000 hr)		
			L(2.0%)	M(1.0%)	P(0.1%)
6 WVDC					
220	\pm 20	T1	0001	0089	0177
220	\pm 10	T1	0002	0090	0178
820	\pm 20	T2	0003	0091	0179
820	\pm 10	T2	0004	0092	0180
1500	\pm 20	T3	0005	0093	0181
1500	\pm 10	T3	0006	0094	0182
2200	\pm 20	T4	0007	0095	0183
2200	\pm 10	T4	0008	0096	0184
8 WVDC					
180	\pm 20	T1	0009	0097	0185
180	\pm 10	T1	0010	0098	0186
680	\pm 20	T2	0011	0099	0187
680	\pm 10	T2	0012	0100	0188
1500	\pm 20	T3	0013	0101	0189
1500	\pm 10	T3	0014	0102	0190
1800	\pm 20	T4	0015	0103	0191
1800	\pm 10	T4	0016	0104	0192
10 WVDC					
150	\pm 20	T1	0017	0105	0193
150	\pm 10	T1	0018	0106	0194
560	\pm 20	T2	0019	0107	0195
560	\pm 10	T2	0020	0108	0196
1200	\pm 20	T3	0021	0109	0197
1200	\pm 10	T3	0022	0110	0198
1500	\pm 20	T4	0023	0111	0199
1500	\pm 10	T4	0024	0112	0200
15 WVDC					
100	\pm 20	T1	0025	0113	0201
100	\pm 10	T1	0026	0114	0202
390	\pm 20	T2	0027	0115	0203
390	\pm 10	T2	0028	0116	0204
820	\pm 20	T3	0029	0117	0205
820	\pm 10	T3	0030	0118	0206
1000	\pm 20	T4	0031	0119	0207
1000	\pm 10	T4	0032	0120	0208
25 WVDC					
68	\pm 20	T1	0033	0121	0209
68	\pm 10	T1	0034	0122	0210
270	\pm 20	T2	0035	0123	0211
270	\pm 10	T2	0036	0124	0212
560	\pm 20	T3	0037	0125	0213
560	\pm 10	T3	0038	0126	0214
680	\pm 20	T4	0039	0127	0215
680	\pm 10	T4	0040	0128	0216
30 WVDC					
56	\pm 20	T1	0041	0129	0217
56	\pm 10	T1	0042	0130	0218
220	\pm 20	T2	0043	0131	0219
220	\pm 10	T2	0044	0132	0220

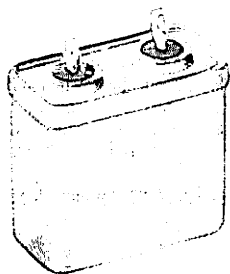
Cap. μ F	Cap. tolerance percent	MIL Case Code	Part No. M39006/21		
			Failure rate level (1%/1,000 hr)		
			L(2.0%)	M(1.0%)	P(0.1%)
30 WVDC (Continued)					
470	\pm 20	T3	0045	0133	0221
470	\pm 10	T3	0046	0134	0222
560	\pm 20	T4	0047	0135	0223
560	\pm 10	T4	0048	0136	0224
50 WVDC					
33	\pm 20	T1	0049	0137	0225
33	\pm 10	T1	0050	0138	0226
120	\pm 20	T2	0051	0139	0227
120	\pm 10	T2	0052	0140	0228
270	\pm 20	T3	0053	0141	0229
270	\pm 10	T3	0054	0142	0230
330	\pm 20	T4	0055	0143	0231
330	\pm 10	T4	0056	0144	0232
60 WVDC					
27	\pm 20	T1	0057	0145	0233
27	\pm 10	T1	0058	0146	0234
100	\pm 20	T2	0059	0147	0235
100	\pm 10	T2	0060	0148	0236
220	\pm 20	T3	0061	0149	0237
220	\pm 10	T3	0062	0150	0238
270	\pm 20	T4	0063	0151	0239
270	\pm 10	T4	0064	0152	0240
75 WVDC					
22	\pm 20	T1	0065	0153	0241
22	\pm 10	T1	0066	0154	0242
82	\pm 20	T2	0067	0155	0243
82	\pm 10	T2	0068	0156	0244
180	\pm 20	T3	0069	0157	0245
180	\pm 10	T3	0070	0158	0246
220	\pm 20	T4	0071	0159	0247
220	\pm 10	T4	0072	0160	0248
100 WVDC					
10	\pm 20	T1	0073	0161	0249
10	\pm 10	T1	0074	0162	0250
39	\pm 20	T2	0075	0163	0251
39	\pm 10	T2	0076	0164	0252
68	\pm 20	T3	0077	0165	0253
68	\pm 10	T3	0078	0166	0254
120	\pm 20	T4	0079	0167	0255
120	\pm 10	T4	0080	0168	0256
125 WVDC					
6.8	\pm 20	T1	0081	0169	0257
6.8	\pm 10	T1	0082	0170	0258
27	\pm 20	T2	0083	0171	0259
27	\pm 10	T2	0084	0172	0260
47	\pm 20	T3	0085	0173	0261
47	\pm 10	T3	0086	0174	0262
82	\pm 20	T4	0087	0175	0263
82	\pm 10	T4	0088	0176	0264

*See page 57, for case size chart.

Consult your local Mallory distributor for price information.



• Liquid Electrolyte Tantalum Capacitors Type CL55



The Mallory Type CL55 is designed to meet all requirements of MIL-C-3965/21 specification. This unit is an assembly of tubular wet tantalum capacitors potted in a metal case and hermetically sealed with each terminal insulated from the capacitor case. These units are supplied with solder-lug type terminals. Refer to MIL-C-3965/21 for complete specifications. For pricing contact factory. Replaces TL.

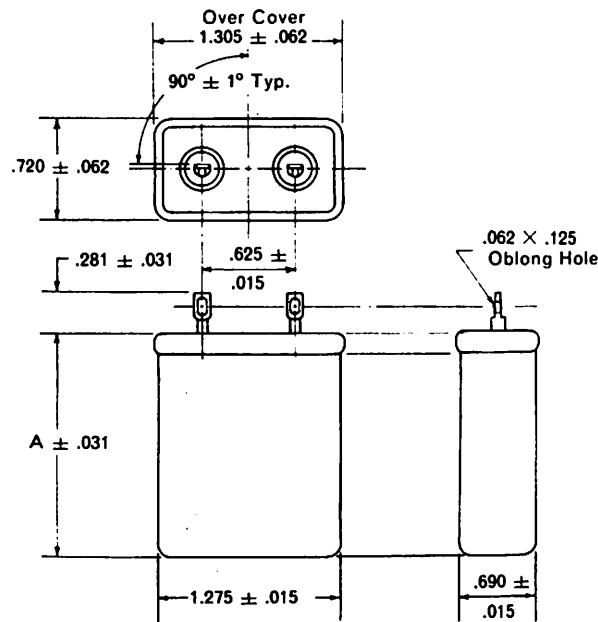
HIGHLIGHTS

Capacitance Range - 70 to 2,400 μ F
 Voltage - 15 - 150VDC
 Temperature Range - -55°C to +125°C
 Power Factor - 15% (max.)

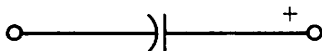
* CASE CODE CHART

Case Code	Dimensions	
	L \pm .031 (.79)	
	in.	mm.
A1	1.062	26.97
A2	1.375	34.93
A3	1.625	41.28
A4	2.000	50.80
A5	2.500	63.50

Cap. (MFD)	Rated Voltage VDC		*Case Code	Catalog Number
	85°C	125°C		
960	15	10	A1	CL55BE961MPG
1200	15	10	A2	CL55BE122MPG
1400	15	10	A3	CL55BE142MPG
2100	15	10	A4	CL55BE212MPG
2400	15	10	A5	CL55BE242MPG
520	30	20	A1	CL55BH521MPG
660	30	20	A2	CL55BH661MPG
820	30	20	A3	CL55BH821MPG
1200	30	20	A4	CL55BH122MPG
1300	30	20	A5	CL55BH132MPG
400	50	30	A1	CL55BJ401MPG
430	50	30	A1	CL55BJ431MPG
500	50	30	A2	CL55BJ501MPG
600	50	30	A3	CL55BJ601MPG
800	50	30	A4	CL55BJ801MPG
1000	50	30	A5	CL55BJ102MPG
270	75	50	A1	CL55BL271MPG
330	75	50	A2	CL55BL331MPG
400	75	50	A3	CL55BL401MPG
600	75	50	A4	CL55BL601MPG
660	75	50	A5	CL55BL661MPG
170	100	65	A1	CL55BN171MPG
220	100	65	A2	CL55BN221MPG
260	100	65	A3	CL55BN261MPG
350	100	65	A4	CL55BN351MPG
440	100	65	A5	CL55BN441MPG
70	150	100	A1	CL55BQ700MPG
90	150	100	A2	CL55BQ900MPG
100	150	100	A3	CL55BQ101MPG
140	150	100	A4	CL55BQ141MPG
180	150	100	A5	CL55BQ181MPG



CIRCUIT DIAGRAM



Inches	mm	Inches	mm
.015	.38	.625	15.88
.031	.79	.690	17.53
.062	1.57	.720	18.29
.125	3.18	1.275	32.39
.281	7.14	1.305	33.15

*See case code chart

CATALOG NUMBER

STYLE: Fixed non solid electrolyte sintered anode tantalum capacitor.

TEMPERATURE CHARACTERISTIC: B = full operating voltage - 55°C to 85°C and linearly derated to 2/3 rated voltage at 125°C.

OPERATING VOLTAGE at 85°C

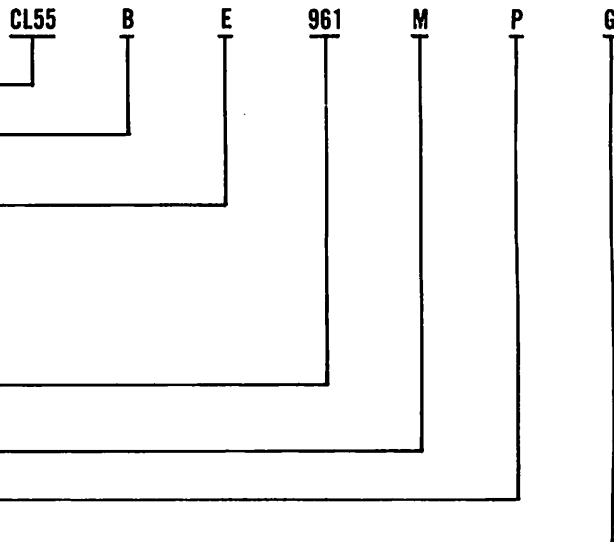
- E = 15
- H = 30
- J = 50
- L = 75
- N = 100
- Q = 150

CAPACITANCE in microfarads first two digits are significant figures, third digit is number of zeroes to follow; i.e., 961 = 960 μ F.

CAPACITANCE TOLERANCE-M = \pm 20%

POLARITY-P = Polar

SEAL TYPE-G = Hermetic



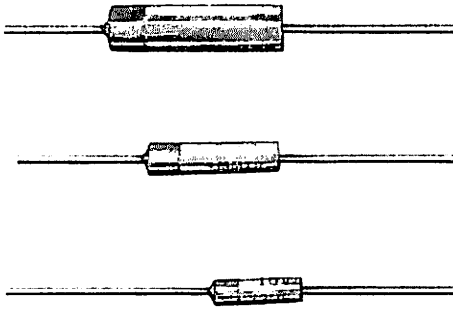
NOTE: Military number does not designate case code. See table for specific capacitance and voltage rating.

•NEW PRODUCT

Consult your local Mallory distributor for price information.

Type MTP/CMT Wet Slug Tantalum Capacitors

MALLORY



Mallory Type MTP capacitors have a higher capacity-voltage product per unit volume than any conventional wet slug, foil or solid tantalum. Sealed in silver case This size factor makes these capacitors very desirable for applications with thin film, integrated and other micro-electronic circuits. An additional advantage of the wet slug construction is the absence of the familiar catastrophic failure mode of solid tantalum devices. The low and stable DCL characteristic of MTP capacitors is ideally suited for application in timing circuits. Request bulletin No. 4-606 for complete specifications. For pricing refer to price sheet No. 314. Replaces 146D, 62F, 69F, SWT, CNW, MW.

The CMT is comparable to the MTP line except for the copper alloy case. Request bulletin No. 4-609 for complete specifications. For pricing refer to price sheet No. 361. Replaces 62F.

HIGHLIGHTS

- Capacitance Range - 3.3 to 470µF
- Voltage - 6 - 60VDC
- Temperature Range - -55°C to +85°C
- Capacity Tolerance - ±20%

Cap. (MFD)	*Case Code	Catalog Number
6 WVDC		
15	D	MTP156M006P1D
47	A	MTP476M006P1A
150	B	MTP157M006P1B
180	B	MTP187M006P1B
450	C	MTP457M006P1C
470	C	MTP477M006P1C
10 WVDC		
10	D	MTP106M010P1D
33	A	MTP336M010P1A
100	B	MTP107M010P1B
120	B	MTP127M010P1B
300	C	MTP307M010P1C
330	C	MTP337M010P1C
15 WVDC		
22	A	MTP226M015P1A
68	B	MTP686M015P1B
80	B	MTP806M015P1B
200	C	MTP207M015P1C
220	C	MTP227M015P1C

Cap. (MFD)	*Case Code	Catalog Number
20 WVDC		
6.8	D	MTP685M020P1D
15	A	MTP156M020P1A
47	B	MTP476M020P1B
60	B	MTP606M020P1B
150	C	MTP157M020P1C
30 WVDC		
6	D	MTP605M030P1D
10	A	MTP106M030P1A
45	B	MTP456M030P1B
120	C	MTP127M030P1C
35 WVDC		
4.7	D	MTP475M035P1D
10	A	MTP106M035P1A
100	C	MTP107M035P1C
50 WVDC		
4	D	MTP405M050P1D
6.8	A	MTP685M050P1A
30	B	MTP306M050P1B
33	B	MTP336M050P1B
68	C	MTP686M050P1C
78	C	MTP786M050P1C

Cap. (MFD)	*Case Code	Catalog Number
60 WVDC		
3.3	D	MTP335M060P1D
4.7	A	MTP475M060P1A
6.8	A	MTP685M060P1A
10	B	MTP106M060P1B
15	B	MTP156M060P1B
22	B	MTP226M060P1B
33	C	MTP336M060P1C
47	C	MTP476M060P1C
68	C	MTP686M060P1C

*See case code chart.

***CMT/MTP CASE CODE CHART**

Case Code	Dia. x Length	Lead Dia. (+.001)
D	.115" x .300"	.02"
A	.115" x .403"	.02"
B	.145" x .600"	.02"
C	.225" x .778"	.02"

Type CMT

Cap. (MFD)	Case Code	Catalog Number
6 WVDC		
15	D	CMT156M006P1D
47	A	CMT476M006P1A
150	B	CMT157M006P1B
180	B	CMT187M006P1B
450	C	CMT457M006P1C
470	C	●CMT477M006P1C
10 WVDC		
10	D	CMT106M010P1D
30	A	†CMT306M010P1A
33	A	●CMT336M010P1A
100	B	CMT107M010P1B
120	B	CMT127M010P1B
300	C	†CMT307M010P1C
330	C	●CMT337M010P1C
15 WVDC		
20	A	†CMT206M015P1A
22	A	●CMT226M015P1A
68	B	●CMT686M015P1B
70	B	†CMT706M015P1B

Cap. (MFD)	Case Code	Catalog Number
15 WVDC (Continued)		
80	B	CMT806M015P1B
200	C	CMT207M015P1C
220	C	●CMT226M015P1C
20 WVDC		
6.8	D	CMT685M020P1D
15	A	CMT156M020P1A
47	B	CMT476M020P1B
50	B	†CMT506M020P1B
60	B	CMT606M020P1B
150	C	CMT157M020P1C
30 WVDC		
6	D	CMT605M030P1D
10	A	CMT106M030P1A
45	B	CMT456M030P1B
120	C	CMT127M030P1C
35 WVDC		
4.7	D	CMT475M035P1D
9	A	†CMT905M035P1A

Cap. (MFD)	Case Code	Catalog Number
35 WVDC (Continued)		
10	A	●CMT106M035P1A
100	C	CMT107M035P1C
50 WVDC		
4	D	CMT405M050P1D
6.8	A	CMT685M050P1A
30	B	CMT306M050P1B
33	B	●CMT336M050P1B
68	C	CMT686M050P1C
78	C	CMT786M050P1C
60 WVDC		
3.3	D	CMT335M060P1D
4	A	†CMT405M060P1A
4.7	A	●CMT475M060P1A
5.6	A	†CMT565M060P1A
6.8	A	●CMT685M060P1A
10	B	CMT106M060P1B
15	B	CMT156M060P1B
22	B	CMT226M060P1B
33	C	CMT336M060P1C
47	C	●CMT476M060P1C
50	C	†CMT506M060P1C
68	C	CMT686M060P1C

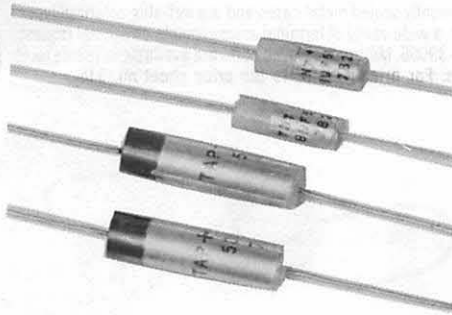
†Available until present stock is exhausted.

●NEW PRODUCT

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

Liquid Electrolyte Tantalum Capacitors Type TAP/TNT



Mallory TNT/TAP capacitors employ sintered anode wet-slug construction and are furnished in metal cases with precision formed epoxy end seals. Values shown have MYLAR® insulating sleeve. Operating temperature: -55°C to +85°C. Standard tolerance: -15%, +75%; other tolerances are available on special order. Request bulletin 4-38 (TNT) or 4-52 (TAP), for complete specifications. For pricing refer to price sheet no. 314.

Type TAP

Cap. Mfd.	Case Code	Catalog Number
6 WVDC		
30	A	TAP306U006P1A
140	B	TAP147U006P1B
10 WVDC		
20	A	TAP206U010P1A
100	B	TAP107U010P1B
250	C	TAP257U010P1C
15 WVDC		
15	A	TAP156U015P1A
70	B	TAP706U015P1B
170	C	TAP177U015P1C
25 WVDC		
10	A	TAP106U025P1A
30 WVDC		
8	A	TAP805U030P1A
40	B	TAP406U030P1B
100	C	TAP107U030P1C
35 WVDC		
7	A	TAP705U035P1A
40 WVDC		
30	B	TAP306U040P1B
50 WVDC		
5	A	TAP505U050P1A
25	B	TAP256U050P1B
60	C	TAP606U050P1C
60 WVDC		
4	A	TAP405U060P1A
20	B	TAP206U060P1B
50	C	TAP506U060P1C
75 WVDC		
3.5	A	TAP355U075P1A
15	B	TAP156U075P1B
40	C	TAP406U075P1C
90 WVDC		
2	A	TAP205U090P1A
11	B	TAP116U090P1B
30	C	TAP306U090P1C

Type TNT

Cap. Mfd.	Case Code	Catalog Number
3 WVDC		
80	B	TNT806U003P1B
6 WVDC		
25	A	TNT256U006P1A
50	B	TNT506U006P1B
12 WVDC		
35	B	TNT356U012P1B
15 WVDC		
12	A	TNT126U015P1A
25	B	TNT256U015P1B
30 WVDC		
15	B	TNT156U030P1B
35 WVDC		
6	A	TNT605U035P1A
12	B	TNT126U035P1B
50 WVDC		
2	A	TNT205U050P1A
4	A	TNT405U050P1A
8	B	TNT805U050P1B

TAP/TNT CASE CODE CHART

Case Code	TNT Chart D(max) × L(max)		TAP Chart D(max) × L(max)	
A	.160	.450	.230	.686
B	.160	.600	.238	.846
C	—	—	.238	1.061

CLEANING SOLVENTS

Cleaning solutions such as methyl, ethyl, or propyl alcohol, and detergents in water solution are usually not harmful to these capacitors. Care should be exercised when using halogenated solvents. Over exposure to chlorinated or fluorinated solvents may adversely effect the elastomer seal of the capacitor.

Cleaning methods for assemblies with capacitors should be developed with the flux and solvent vendor. As an alternative capacitors may be mounted after the cleaning operation.

WARNING

The electrolyte in wet slug tantalum capacitors is sulfuric acid. The electrolyte may be under some pressure. It is recommended that no attempt be made to open or dismantle these capacitors as the electrolyte can be hazardous to personnel and equipment.

CAUTIONS AGAINST MISAPPLICATION

1. Do not apply any reverse voltage to these capacitors.
2. Do not operate at temperatures above the maximum rated.
3. Do not exceed rated WVDC and Surge Voltage of the capacitor.
4. Do not apply ripple voltage or ripple current in excess of specification limits.

Violation of above can be hazardous and can cause capacitor failure or equipment failure.

® MYLAR is an E.I. du Pont de Nemours trademark.

Consult your local Mallory distributor for price information.

Type XTM, XTH, XTL and XTV § + 200°C Capacitors



High Temperature Tantalum

Mallory high temperature capacitors (200°C) are furnished in hermetically sealed metal cases and are wet-slug polarized types. XTM-A types have axial leads. All XTL, H and V types are available in a wide variety of terminal arrangements on special request. These same ratings are available to meet the requirements of MIL-C-39006. Military approved parts are available in failure rates L, M and P. Request bulletin 4-501, for complete specifications. For pricing, refer to the price sheet no. 315.

TYPE XTM -55°C to +85°C (200°C with proper voltage derating, see Bulletin 4-84)

Tolerance: -15, +50%

Cap., (mfd)	WVDC +85°C	Catalog Number*
8	180	XTM805T180POA
5	270	XTM505T270POA
4	360	XTM405T360POA

*Commercial equivalent to MIL-C-39006/18, Style CLR10. Also available to MIL-C-3965, Style CL10 and CL13.



XTM
"A" Configuration

TYPE XTH -55°C to +85°C (200°C with proper voltage derating, see Bulletin 4-84)

Tolerance: -15, +75%

Cap., (mfd)	WVDC +85°C	Catalog Number*
150	30	XTH157U030POC
80	60	XTH806U060POC
50	90	XTH506U090POC
25	180	XTH256U180POC
16	270	XTH166U270POC
12	360	XTH126U360POC
10	450	XTH106U450POC

*Commercial equivalent to MIL-C-39006/19, Style CLR14. Also available to MIL-C-3965, Style CL14 and CL16.



XTH
"C" Configuration

TYPE XTL -55°C to +85°C (200°C with proper voltage derating, see Bulletin 4-84)

Tolerance: -15, +75%

Cap., (mfd)	WVDC +85°C	Catalog Number*
40	60	XTL406U060POC
25	90	XTL256U090POC
12	180	XTL126U180POC
8	270	XTL805U270POC
6	360	XTL605U360POC
5	450	XTL505U450POC
4	540	XTL405U540POC
3.5	630	XTL355U630POC

*Commercial equivalent to MIL-C-39006/19, Style CLR14. Also available to MIL-C-3965, Style CL14 and CL16.



XTL
"C" Configuration

TYPE XTV -55°C to +85°C (200°C with proper voltage derating, see Bulletin 4-84)

Tolerance: -15, +50%

Cap., (mfd)	WVDC +85°C	Catalog Number*
650	30	XTV657T030POC
1300	30	XTV138T030POC
350	60	XTV357T060POC
700	60	XTV707T060POC
120	90	XTV127T090POC
220	90	XTV227T090POC
450	90	XTV457T090POC

*Commercial equivalent to MIL-C-39006/20, Style CLR17. Also available to MIL-C-3965, Style CL17 and CL18.

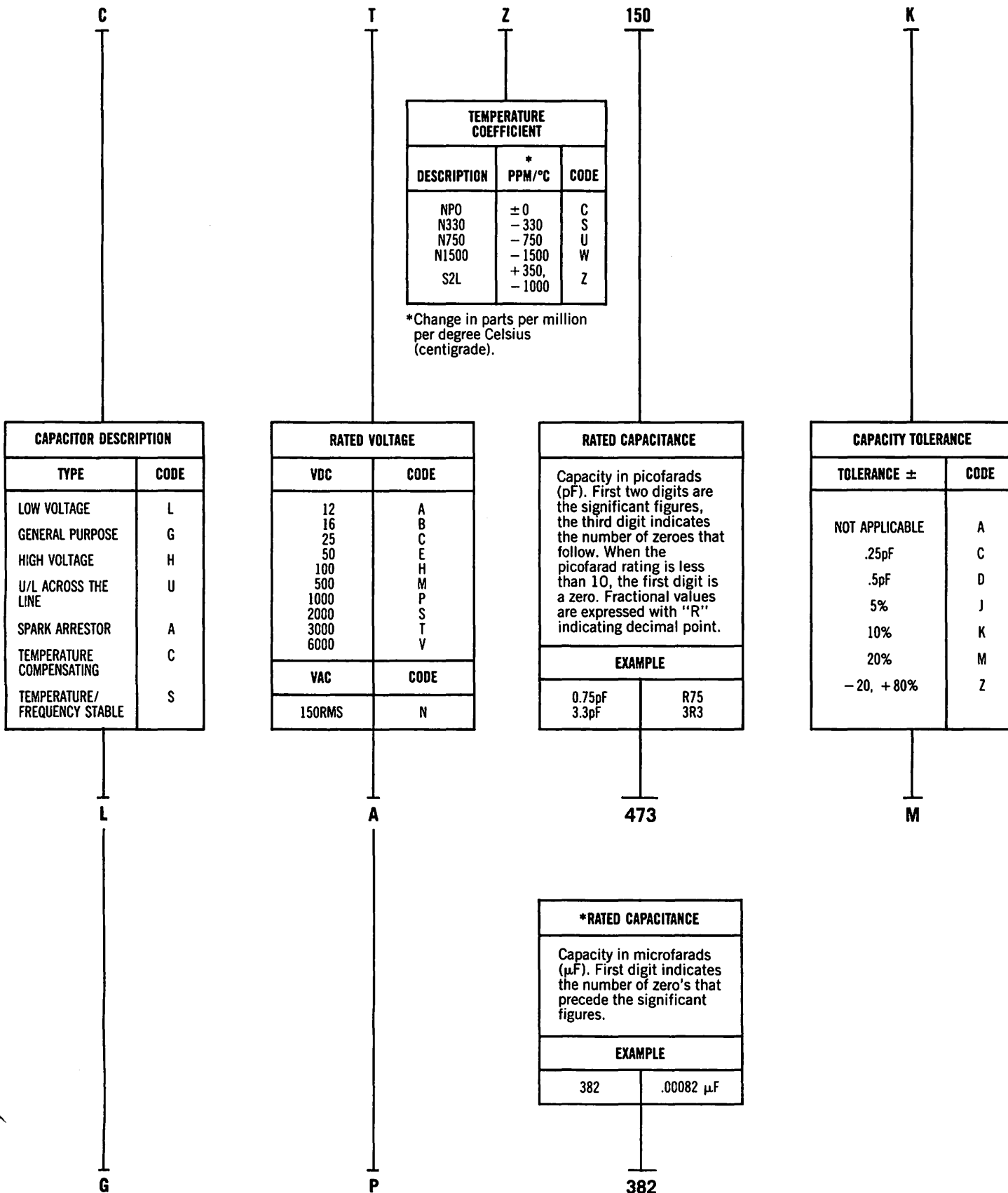
§With proper voltage derating.



XTV
"C" Configuration

Consult your local Mallory distributor for price information.

CATALOG PART NUMBERING SYSTEM



*Applies to 1,000 V General Purpose line only.

Consult your local Mallory distributor for price information.

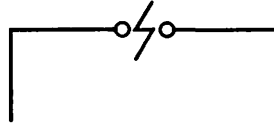
•Type A Spark-Arrestor Disc Ceramics



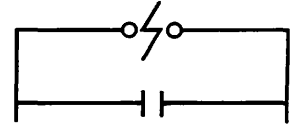
The Type 1 Spark-arrestors consist of a wire loop encased in phenolic resin. After the loop has been encased, a precise slot is cut through the wire loop and its protective case to form a gap. Type 1 does not include a parallel disc ceramic. Type 2, Spark-arrestors, is a combination of a ceramic disc in parallel with the gap. Useful in either industrial or commercial applications which require bypassing of transient over voltages. The precise gap allows the stray transients to be harmlessly bypassed. Operating Temperature: -55°C to +85°C.

SPARK-ARRESTOR DISC CERAMICS

Cap.	Voltage	Type	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
1-3 KVDC							
*.75pf max.	1-2 KVDC	1	.350		.250	●ASR75A	SPG2
*.75pf max.	2-3 KVDC	1	.350		.250	●ATR75A	SPG3
†.01mfd. max.	2-3 KVDC	2	.750	.187	.375	●AT103A	SPG113



TYPE 1



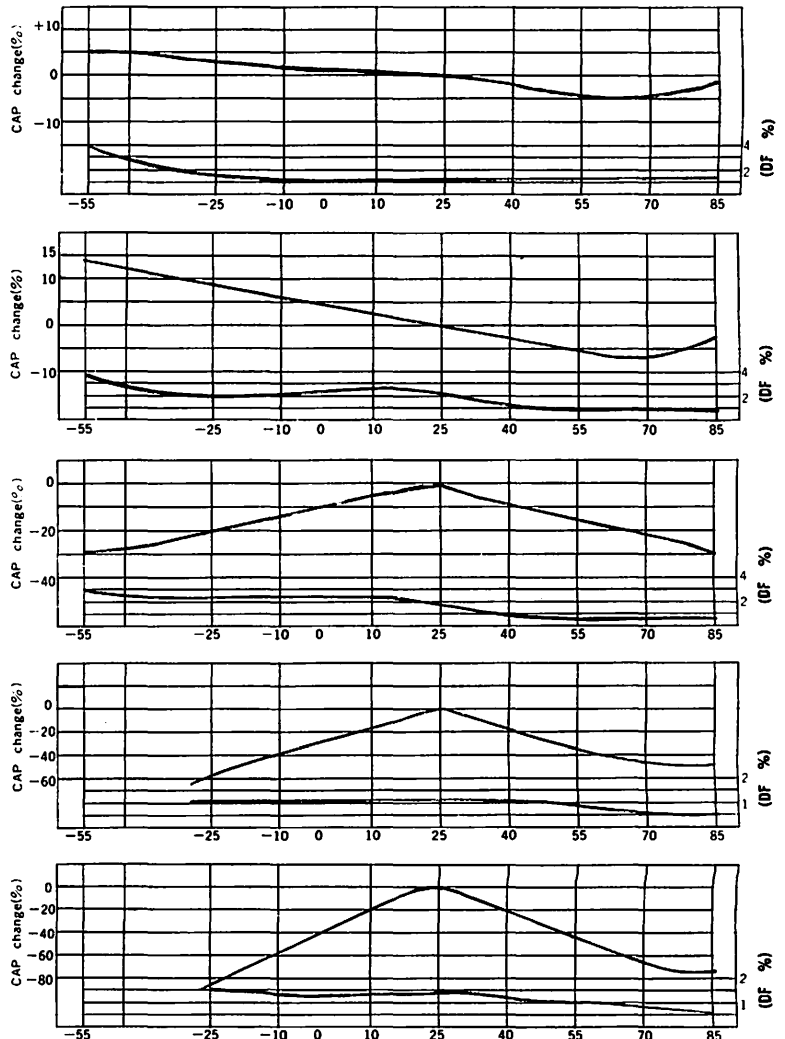
TYPE 2

*Inherent capacity of gap only. No parallel disc ceramic.
†Includes parallel disc ceramic.

TYPICAL PERFORMANCE

EIA DESIGNATION: YA-Y5D, Y5E, Y5F, X5F, YB-Y5P, Y5R, Y5S, YD-Y5T, X5T, YE-Y5U, YF-Y5V, ZF, Z5V, AS LISTED SEE CAPACITANCE AND DISSIPATION FACTOR VS. TEMPERATURE FOR SPECIFICATION.

JIS STANDARD		E.I.A. STANDARD			
Temp. Range -25-85	Cap. Change (%)	Temp. Change (°C) -25-85	Cap. Change (%)	Temp. Range -55-85	Cap. Change (%)
YA	± 4.7	Y5D (special)	± 3.3 (50V, only)		
		Y5E	± 4.7	X5F	± 7.5
		Y5F	± 7.5		
YB	± 8	Y5P	± 10	X5R	± 15
		Y5R	± 15		
		Y5S	± 22		
YD	+ 5, -30	Y5T	+ 22 -33	X5T	+ 22 -33
YE	+ 5, -55	Y5U	+ 22 -56		
YF	+ 10, -80	Y5V	+ 22 -82		
(ZF)	+ 10, -80	Z5V	+ 22 -82		



●NEW PRODUCT

Consult your local Mallory distributor for price information.

• EIA Class 3, Semiconductor Type, Reduced Titanite Discs Type L

Mallory reduced titanite ceramic discs are ideal for use in transistorized circuitry for bypass and coupling applications. Ultra miniature in size they are economical replacements for electrolytic capacitors of similar capacitance values because of their low power factor and superior radio frequency impedance characteristics. Mallory Type L discs meet or exceed EIA RS-198B specifications for Class 3 ceramic capacitors.

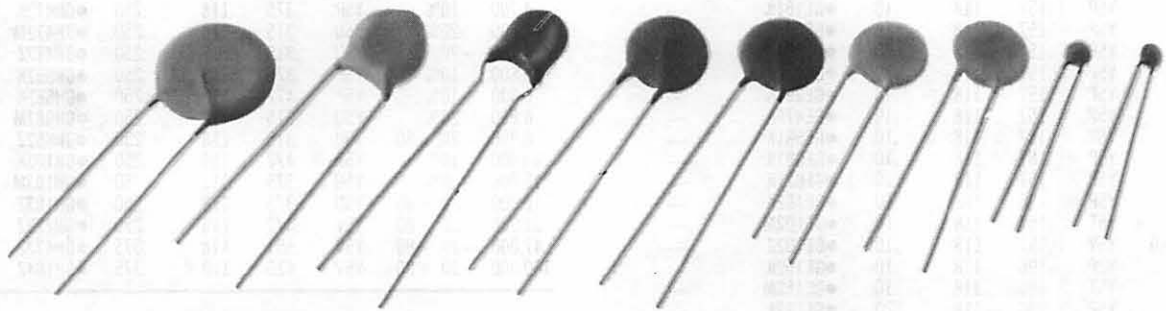
HIGHLIGHTS

- Capacitance Range—0.01 to 0.47 μ F
- Voltage—12, 16, 25 and 50 WVDC
- Temperature Range— -55°C to $+85^{\circ}\text{C}$ (-30°C to $+85^{\circ}\text{C}$)
- Insulation Resistance—1 megohm (min.)
- Operating Frequency—1,000 Hz
- Power Factor—5% (max.)

CLASS 3, SEMICONDUCTOR TYPE REDUCED TITANATE CERAMIC DISC CAPS.

Cap. (MFD)	Tol. +	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing	Catalog Number	To Replace
12 WVDC							
.047	20%	Y5U	.235	.159	.250	●LA473M	MAG1215
.068	20%	X5U	.390	.159	.250	●LA683M	—
.10	20%	Y5U	.437	.159	.250	●LA104M	MAG1201
.15	20%	Y5U	.437	.159	.250	●LA154M	MAG12015
.22	20%	Y5U	.437	.159	.250	●LA224M	MAG12022
.33	20%	X5U	.775	.159	.375	●LA334M	MAG12033
.47	20%	X5U	.840	.159	.375	●LA474M	MAG12047
16 WVDC							
.01	20%	X5U	.265	.159	.250	●LB103M	MAG1611
.015	20%	X5U	.290	.159	.250	●LB153M	MAG16115
.02	20%	X5U	.340	.159	.250	●LB203M	MAG1612
.033	20%	X5U	.400	.159	.250	●LB333M	MAG16133
.05	20%	X5U	.480	.159	.250	●LB503M	MAG1615
.068	20%	X5U	.550	.159	.375	●LB683M	MAG16168
.10	20%	X5U	.650	.159	.375	●LB104M	MAG1601
.15	20%	X5U	.775	.159	.375	●LB154M	MAG16015
.22	20%	X5U	.910	.159	.375	●LB224M	MAG16022

Cap. (MFD)	Tol. +	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing	Catalog Number	To Replace
25 WVDC							
.01	20%	Y5R	.235	.159	.250	●LC103M	MAG2511
.015	20%	Y5R	.280	.159	.250	●LC153M	MAG25115
.022	20%	Y5R	.315	.159	.250	●LC223M	MAG2512
.033	20%	Y5R	.350	.159	.250	●LC333M	MAG25133
.047	20%	Y5R	.375	.159	.250	●LC473M	MAG2515
.068	20%	Y5R	.468	.159	.250	●LC683M	MAG25168
.10	20%	Y5R	.495	.159	.250	●LC104M	MAG2501
.15	20%	Y5U	.495	.159	.250	●LC154M	MAG25015
.22	20%	Y5U	.495	.159	.250	●LC224M	MAG25022
50 WVDC							
.01	20%	Y5U	.230	.159	.250	●LE103M	MAG5011
.015	20%	Y5U	.290	.159	.250	●LE153M	MAG50115
.022	20%	Y5U	.290	.159	.250	●LE223M	MAG5012
.033	20%	Y5U	.359	.159	.250	●LE333M	MAG50133
.047	20%	Y5U	.359	.159	.250	●LE473M	MAG5015
.068	20%	Y5U	.484	.159	.250	●LE683M	MAG50168
.10	20%	Y5U	.484	.159	.250	●LE104M	MAG5001



TYPICAL EXAMPLES

Type G — General Purpose

MALLORY

The new Mallory general purpose disc ceramic capacitors provide a wide choice of 50, 100, 500 and 1,000 volt DC rated units. These are designed for transistor circuitry and applications requiring high capacitance and low power factor for general purpose application. All capacitors are coated with tough humidity resistant coating and primarily designed for non-critical coupling, bypass and filter applications, found in all types of entertainment, industrial and medical equipment.

HIGHLIGHTS

- Capacitance Range—1 to 100,000 picofarads
- Voltage—50, 100, 500 and 1,000 WVDC
- Temperature Range— -55°C to +85°C
- Insulation Resistance—10,000 megohms (min.)
- Power Factor—2.5% (max.)
- Operating Frequency—1,000 Hz

GENERAL PURPOSE DISC CERAMICS

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
50 WVDC							
1	.25pf	S2L	.196	.118	.10	●GE010C	—
3	.25pf	S2L	.196	.118	.10	●GE030C	—
5	.25pf	S2L	.196	.118	.10	●GE050C	—
6	.5pf	S2L	.196	.118	.10	●GE060D	—
7	.5pf	S2L	.196	.118	.10	●GE070D	—
8	.5pf	S2L	.196	.118	.10	●GE080D	—
10	.5pf	S2L	.196	.118	.10	●GE100D	—
12	10%	S2L	.196	.118	.10	●GE120K	—
15	10%	S2L	.196	.118	.10	●GE150K	—
18	10%	S2L	.196	.118	.10	●GE180K	—
20	10%	S2L	.196	.118	.10	●GE200K	—
22	10%	S2L	.196	.118	.10	●GE220K	—
24	10%	S2L	.196	.118	.10	●GE240K	—
27	10%	S2L	.196	.118	.10	●GE270K	—
33	10%	S2L	.196	.118	.10	●GE330K	—
39	10%	S2L	.196	.118	.10	●GE390K	—
47	10%	S2L	.196	.118	.10	●GE470K	—
51	10%	S2L	.196	.118	.10	●GE510K	—
56	10%	S2L	.196	.118	.10	●GE560K	—
68	10%	S2L	.196	.118	.10	●GE680K	—
75	10%	S2L	.196	.118	.10	●GE750K	—
82	10%	S2L	.196	.118	.10	●GE820K	—
91	10%	S2L	.196	.118	.10	●GE910K	—
100	10%	Y5P	.157	.118	.10	●GE101K	—
120	10%	Y5P	.157	.118	.10	●GE121K	—
150	10%	Y5P	.157	.118	.10	●GE151K	—
180	10%	Y5P	.157	.118	.10	●GE181K	—
220	10%	Y5P	.157	.118	.10	●GE221K	—
270	10%	Y5P	.157	.118	.10	●GE271K	—
330	10%	Y5P	.157	.118	.10	●GE331K	—
390	10%	Y5P	.157	.118	.10	●GE391K	—
470	10%	Y5P	.157	.118	.10	●GE471K	—
560	10%	Y5P	.157	.118	.10	●GE561K	—
680	10%	Y5P	.157	.118	.10	●GE681K	—
820	10%	Y5P	.157	.118	.10	●GE821K	—
1,000	10%	Y5P	.196	.118	.10	●GE102K	—
1,000	20%	Y5T	.157	.118	.10	●GE102M	—
1,000	-20, +80	Y5V	.157	.118	.10	●GE102Z	—
1,500	10%	Y2P	.196	.118	.10	●GE152K	—
1,500	20%	Y5T	.196	.118	.10	●GE152M	—
1,800	10%	Y5P	.236	.118	.20	●GE182K	—
2,200	10%	Y5P	.236	.118	.20	●GE222K	—
2,200	20%	Y5U	.196	.118	.10	●GE222M	—
2,200	-20, +80	Y5V	.157	.118	.10	●GE222Z	—
2,700	10%	Y5P	.276	.118	.20	●GE272K	—
3,300	10%	Y5P	.276	.118	.20	●GE332K	—
3,300	20%	Y5U	.236	.118	.20	●GE332M	—
3,900	10%	Y5P	.315	.118	.20	●GE392K	—
4,700	10%	Y5P	.315	.118	.20	●GE472K	—
4,700	20%	Y5U	.236	.118	.20	●GE472M	—
4,700	-20, +80	Y5V	.196	.118	.10	●GE472Z	—
5,600	10%	Y5P	.354	.118	.20	●GE562K	—
6,800	10%	Y5P	.374	.118	.20	●GE682K	—
6,800	20%	Y5U	.276	.118	.20	●GE682M	—

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
50 WVDC (Continued)							
8,200	10%	Y5P	.394	.118	.20	●GE822K	—
10,000	10%	Y5P	.472	.118	.20	●GE103K	—
10,000	20%	Y5U	.315	.118	.20	●GE103M	—
10,000	-20, +80	Y5V	.276	.118	.20	●GE103Z	—
22,000	10%	Y5U	.472	.118	.20	●GE223K	—
22,000	20%	Y5V	.354	.118	.20	●GE223M	—
40,000	20%	Y5U	.591	.118	.20	●GE403M	—
47,000	20%	Y5U	.591	.118	.20	●GE473M	—
47,000	-20, +80	Y5V	.492	.118	.20	●GE473Z	—
100,000	-20, +80	Z5V	.551	.118	.20	●GE104Z	—
100 WVDC							
1,200	10%	Y5P	.236	.118	.250	●GH122K	—
1,500	10%	Y5P	.236	.118	.250	●GH152K	—
1,500	20%	Y5U	.236	.118	.250	●GH152M	—
1,500	-20, +80	Y5U	.236	.118	.250	●GH152Z	—
1,800	10%	Y5P	.236	.118	.250	●GH182K	—
2,200	10%	Y5P	.315	.118	.250	●GH222K	—
2,200	20%	Y5U	.236	.118	.250	●GH222M	—
2,200	-20, +80	Y5U	.236	.118	.250	●GH222Z	—
2,700	10%	Y5P	.315	.118	.250	●GH272K	—
3,300	10%	Y5P	.315	.118	.250	●GH332K	—
3,300	20%	Y5U	.236	.118	.250	●GH332M	—
3,300	-20, +80	Y5U	.236	.118	.250	●GH332Z	—
3,900	10%	Y5P	.315	.118	.250	●GH392K	—
4,700	10%	Y5P	.375	.118	.250	●GH472K	—
4,700	20%	Y5U	.315	.118	.250	●GH472M	—
4,700	-20, +80	Y5U	.315	.118	.250	●GH472Z	TA250
5,600	10%	Y5P	.375	.118	.250	●GH562K	—
6,800	10%	Y5P	.472	.118	.250	●GH682K	—
6,800	20%	Y5U	.315	.118	.250	●GH682M	—
6,800	-20, +80	Y5U	.315	.118	.250	●GH682Z	—
10,000	10%	Y5P	.472	.118	.250	●GH103K	—
10,000	20%	Y5U	.375	.118	.250	●GH103M	—
10,000	-20, +80	Y5U	.375	.118	.250	●GH103Z	TA110
22,000	-20, +80	Y5V	.472	.118	.250	●GH223Z	TA120/125
47,000	-20, +80	Y5V	.551	.118	.375	●GH473Z	TA150
100,000	-20, +80	Y5V	.625	.118	.375	●GH104Z	TA010
500 WVDC							
1	.25pf	S2L	.236	.159	.250	●GM010C	—
3	.25pf	S2L	.236	.159	.250	●GM030C	—
3.3	.25pf	S2L	.236	.159	.250	●GM3R3C	GP533A
5	.25pf	S2L	.236	.159	.250	●GM050C	GP550A
6	.5pf	S2L	.236	.159	.250	●GM060D	—
6.8	.5pf	S2L	.236	.159	.250	●GMR8D	GP568A
7	.5pf	S2L	.236	.159	.250	●GM070D	—
7.5	.5pf	S2L	.236	.159	.250	●GM7R5D	—
8	.5pf	S2L	.236	.159	.250	●GM080D	GP580A
10	.5pf	S2L	.236	.159	.250	●GM100D	GP410A
12	10%	S2L	.236	.159	.250	●GM120K	GP412A
15	10%	S2L	.236	.159	.250	●GM150K	GP415A

●NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
500 WVDC (Continued)							
18	10%	S2L	.236	.159	.250	●GM180K	GP418A
20	10%	S2L	.236	.159	.250	●GM200K	GP420A
22	10%	S2L	.236	.159	.250	●GM220K	GP422A
24	10%	S2L	.236	.159	.250	●GM240K	GP425A
27	10%	S2L	.236	.159	.250	●GM270K	GP427A
33	10%	S2L	.236	.159	.250	●GM330K	GP433A
39	10%	S2L	.236	.159	.250	●GM390K	GP439A
47	10%	S2L	.236	.159	.250	●GM470K	GP447A
51	10%	S2L	.236	.159	.250	●GM510K	GP450A
56	10%	S2L	.236	.159	.250	●GM560K	GP456A
68	10%	S2L	.236	.159	.250	●GM680K	GP468A
75	10%	S2L	.236	.159	.250	●GM750K	—
82	10%	S2L	.236	.159	.250	●GM820K	—
91	10%	S2L	.236	.159	.250	●GM910K	—
100	10%	Y5P	.236	.159	.250	●GM101K	GP310A
120	10%	Y5P	.236	.159	.250	●GM121K	—
150	10%	Y5P	.236	.159	.250	●GM151K	GP315A
180	10%	Y5P	.236	.159	.250	●GM181K	—
220	10%	Y5P	.236	.159	.250	●GM221K	GP322A
270	10%	Y5P	.236	.159	.250	●GM271K	—
330	10%	Y5P	.236	.159	.250	●GM331K	GP333A
390	10%	Y5P	.236	.159	.250	●GM391K	—
470	10%	Y5P	.236	.159	.250	●GM471K	GP347A
560	10%	Y5P	.236	.159	.250	●GM561K	GP356A
680	10%	Y5P	.236	.159	.250	●GM681K	GP368A
820	10%	Y5P	.236	.159	.250	●GM821K	GP382A
1,000	10%	Y5P	.236	.159	.250	●GM102K	GP210A
1,000	20%	Y5U	.236	.159	.250	●GM102M	SM210
1,000	-20, +80	Y5U	.236	.159	.250	●GM102Z	BG210
1,500	10%	Y5P	.291	.159	.250	●GM152K	GP215A
1,500	20%	Y5U	.236	.159	.250	●GM152M	SM215
1,500	-20, +80	Y5U	.236	.159	.250	●GM152Z	—
1,800	10%	Y5P	.338	.159	.250	●GM182K	GP218A
2,200	10%	Y5P	.338	.159	.250	●GM222K	—
2,200	20%	Y5U	.236	.159	.250	●GM222M	GP222A
2,200	-20, +80	Y5U	.236	.159	.250	●GM222Z	BG220/BG222
2,700	10%	Y5P	.374	.159	.250	●GM272K	GP227A
3,300	10%	Y5P	.433	.159	.250	●GM332K	—
3,300	20%	Y5U	.291	.159	.250	●GM332M	GP233A
3,300	-20, +80	Y5U	.291	.159	.250	●GM332Z	—
3,900	10%	Y5P	.433	.159	.250	●GM392K	BG240/BG230
4,700	10%	Y5P	.492	.159	.250	●GM472K	—
4,700	20%	Y5U	.338	.159	.250	●GM472M	GP247A
4,700	-20, +80	Y5U	.338	.159	.250	●GM472Z	BG250
5,600	10%	Y5P	.492	.159	.250	●GM562K	—
6,800	10%	Y5P	.570	.159	.375	●GM682K	—
6,800	20%	Y5U	.433	.159	.250	●GM682M	GP268A
6,800	-20, +80	Y5U	.433	.159	.250	●GM682Z	—
8,200	10%	Y5P	.570	.159	.375	●GM822K	—
10,000	10%	Y5P	.642	.159	.375	●GM103K	—
10,000	20%	Y5U	.492	.159	.250	●GM103M	GP110A
10,000	-20, +80	Y5U	.492	.159	.250	●GM103Z	BG110
22,000	20%	Y5U	.642	.159	.375	●GM223M	GP120A
22,000	-20, +80	Y5U	.642	.159	.375	●GM223Z	BG120
30,000	20%	Y5U	.950	.159	.375	●GM303M	GP130
40,000	20%	Y5U	.950	.159	.375	●GM403M	GP140
50,000	20%	Y5U	.950	.159	.375	●GM503M	GP150
100,000	20%	Y5U	.950	.159	.375	●GM104M	—

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
1,000 WVDC							
3.3	.25pf	S2L	.236	.159	.250	GP533	—
5	.25pf	S2L	.236	.159	.250	GP550	—
5.8	.5pf	S2L	.236	.159	.250	GP568	—
8	.5pf	S2L	.236	.159	.250	GP580	—
10	.5pf	S2L	.236	.159	.250	GP410	—
12	10%	S2L	.236	.159	.250	GP412	—
15	10%	S2L	.236	.159	.250	GP415	—
18	10%	S2L	.236	.159	.250	GP418	—
20	10%	S2L	.236	.159	.250	GP420	—
22	10%	S2L	.236	.159	.250	GP422	—
27	10%	S2L	.236	.159	.250	GP427	—
30	10%	S2L	.236	.159	.250	GP430	—
33	10%	S2L	.236	.159	.250	GP433	—
39	10%	S2L	.236	.159	.250	GP439	—
47	10%	S2L	.236	.159	.250	GP447	—
56	10%	S2L	.236	.159	.250	GP456	—
68	10%	S2L	.236	.159	.250	GP468	—
75	10%	Y5P	.236	.159	.250	GP475	—
82	10%	Y5P	.236	.159	.250	GP482	—
91	10%	Y5P	.236	.159	.250	GP491	—
100	10%	Y5P	.236	.159	.250	GP310	—
120	10%	Y5P	.236	.159	.250	GP312	—
150	10%	Y5P	.236	.159	.250	GP315	B315
180	10%	Y5P	.236	.159	.250	GP318	—
220	10%	Y5P	.236	.159	.250	GP322	—
270	10%	Y5P	.236	.159	.250	GP327	—
330	10%	Y5P	.236	.159	.250	GP333	—
390	10%	Y5P	.236	.159	.250	GP339	—
470	10%	Y5P	.236	.159	.250	GP347	B347
560	10%	Y5P	.236	.159	.250	GP356	—
680	10%	Y5P	.236	.159	.250	GP368	—
750	10%	Y5P	.236	.159	.250	GP375	—
820	10%	Y5P	.236	.159	.250	GP382	—
1,000	10%	Y5P	.291	.159	.250	GP210	B210
1,500	10%	Y5P	.339	.159	.250	GP215	—
1,800	10%	Y5P	.374	.159	.250	GP218	—
2,200	10%	Y5P	.374	.159	.250	GP222	—
2,700	10%	Y5P	.433	.159	.250	GP227	—
3,300	20%	Y5T	.433	.159	.250	GP233	—
3,900	10%	Y5P	.412	.159	.250	GP239	B240
4,700	20%	Y5U	.433	.159	.250	GP247	—
5,600	10%	Y5P	.590	.159	.375	GP256	—
6,800	20%	Y5T	.590	.159	.375	GP268	—
10,000	20%	Y5U	.590	.159	.375	GP110	B110
22,000	20%	Y5U	.748	.159	.375	GP122	GP/20/B120

•Type C — Temperature Compensating Ceramic Discs



Mallory has now expanded its offering in the temperature compensating disc ceramic. We now offer 50, 100, 500 and 1,000, 3,000 and 6,000 volt types. These are now being offered in four temperature coefficients (NPO, N330, N750 and N1500) in voltages ranging from 50 to 1,000 volts. These discs are used in timing circuits, oscillatory circuits and similar applications where changes in capacity with temperature must be predictable and closely controlled.

HIGHLIGHTS

Capacitance Range — 1 to 910 picofarads
 Voltage — 50-100-500-1,000-3,000-6,000 W volts
 Insulation Resistance — 10,000 megohms @ 500VDC
 Operating Frequency — 1,000 Hz

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thick-ness In.	Lead Spacing In.	Catalog Number (NPO)	To Replace
TEMPERATURE COMPENSATING DISC — NPO							
50 WVDC							
1	.25pf	NPO	.196	.118	.098	●CEC010C	—
1.5	.25pf	NPO	.196	.118	.098	●CEC1R5C	—
2	.25pf	NPO	.196	.118	.098	●CEC020C	—
3	.25pf	NPO	.196	.118	.098	●CEC030C	—
4	.25pf	NPO	.196	.118	.098	●CEC040C	—
5	.25pf	NPO	.196	.118	.098	●CEC050C	—
6	.5pf	NPO	.196	.118	.098	●CEC060D	—
7	.5pf	NPO	.196	.118	.098	●CEC070D	—
8	.5pf	NPO	.196	.118	.098	●CEC080D	—
9	.5pf	NPO	.196	.118	.098	●CEC090D	—
10	5%	NPO	.196	.118	.098	●CEC100J	—
11	5%	NPO	.196	.118	.098	●CEC110J	—
12	5%	NPO	.196	.118	.098	●CEC120J	—
13	5%	NPO	.196	.118	.098	●CEC130J	—
15	5%	NPO	.196	.118	.098	●CEC150J	—
16	5%	NPO	.196	.118	.098	●CEC160J	—
18	5%	NPO	.196	.118	.098	●CEC180J	—
20	5%	NPO	.196	.118	.098	●CEC200J	—
22	5%	NPO	.196	.118	.098	●CEC220J	—
24	5%	NPO	.196	.118	.098	●CEC240J	—
27	5%	NPO	.196	.118	.098	●CEC270J	—
30	5%	NPO	.196	.118	.098	●CEC300J	—
33	5%	NPO	.196	.118	.098	●CEC330J	—
36	5%	NPO	.196	.118	.196	●CEC360J	—
39	5%	NPO	.196	.118	.196	●CEC390J	—
43	5%	NPO	.236	.118	.196	●CEC430J	—
47	5%	NPO	.236	.118	.196	●CEC470J	—
51	5%	NPO	.236	.118	.196	●CEC510J	—
56	5%	NPO	.236	.118	.196	●CEC560J	—
62	5%	NPO	.276	.118	.196	●CEC620J	—
68	5%	NPO	.276	.118	.196	●CEC680J	—
75	5%	NPO	.276	.118	.196	●CEC750J	—
82	5%	NPO	.276	.118	.196	●CEC820J	—
91	5%	NPO	.315	.118	.196	●CEC910J	—
100	5%	NPO	.314	.118	.196	●CEC101J	—
110	5%	NPO	.314	.118	.196	●CEC111J	—
120	5%	NPO	.314	.118	.196	●CEC121J	—
130	5%	NPO	.354	.118	.196	●CEC131J	—
150	5%	NPO	.354	.118	.196	●CEC151J	—
160	5%	NPO	.354	.118	.196	●CEC161J	—
180	5%	NPO	.374	.118	.196	●CEC181J	—
200	5%	NPO	.413	.118	.196	●CEC201J	—
220	5%	NPO	.413	.118	.196	●CEC221J	—
240	5%	NPO	.472	.118	.196	●CEC241J	—
270	5%	NPO	.472	.118	.196	●CEC271J	—
300	5%	NPO	.472	.118	.196	●CEC301J	—

500 WVDC							
1	.25pf	NPO	.236	.159	.250	●CMC010C	CG0510
1.5	.25pf	NPO	.236	.159	.250	●CMC1R5C	CG0515
2	.25pf	NPO	.236	.159	.250	●CMC020C	CG0522
3	.25pf	NPO	.236	.159	.250	●CMC030C	CG0533
4	.25pf	NPO	.236	.159	.250	●CMC040C	—
5	.25pf	NPO	.236	.159	.250	●CMC050C	CG0547
6	.5pf	NPO	.236	.159	.250	●CMC060D	—
7	.5pf	NPO	.236	.159	.250	●CMC070D	CG0568

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thick-ness In.	Lead Spacing In.	Catalog Number (NPO)	To Replace
TEMPERATURE COMPENSATING DISC — NPO (Continued)							
500 WVDC (Continued)							
8	.5pf	NPO	.236	.159	.250	●CMC080D	—
9	.5pf	NPO	.236	.159	.250	●CMC090D	—
10	5%	NPO	.236	.159	.250	●CMC100J	CG0410
11	5%	NPO	.236	.159	.250	●CMC110J	—
12	5%	NPO	.236	.159	.250	●CMC120J	CG0412
13	5%	NPO	.236	.159	.250	●CMC130J	—
15	5%	NPO	.236	.159	.250	●CMC150J	CG0415
16	5%	NPO	.236	.159	.250	●CMC160J	—
18	5%	NPO	.236	.159	.250	●CMC180J	CG0418
20	5%	NPO	.236	.159	.250	●CMC200J	CG0420
22	5%	NPO	.236	.159	.250	●CMC220J	CG0422
24	5%	NPO	.236	.159	.250	●CMC240J	CG0425
27	5%	NPO	.236	.159	.250	●CMC270J	CG0427
30	5%	NPO	.236	.159	.250	●CMC300J	—
33	5%	NPO	.291	.159	.250	●CMC330J	CG0433
36	5%	NPO	.291	.159	.250	●CMC360J	—
39	5%	NPO	.291	.159	.250	●CMC390J	CG0439
43	5%	NPO	.291	.159	.250	●CMC430J	—
47	5%	NPO	.291	.159	.250	●CMC470J	CG0447
51	5%	NPO	.375	.159	.250	●CMC510J	CG0450
56	5%	NPO	.375	.159	.250	●CMC560J	CG0456
62	5%	NPO	.375	.159	.250	●CMC620J	—
68	5%	NPO	.375	.159	.250	●CMC680J	CG0468
75	5%	NPO	.375	.159	.250	●CMC750J	CG0475
82	5%	NPO	.375	.159	.250	●CMC820J	CG0482
91	5%	NPO	.433	.159	.250	●CMC910J	—
100	5%	NPO	.433	.159	.250	●CMC101J	CG0310
110	5%	NPO	.433	.159	.250	●CMC111J	—
120	5%	NPO	.433	.159	.250	●CMC121J	CG0312
130	5%	NPO	.492	.159	.250	●CMC131J	—
150	5%	NPO	.492	.159	.250	●CMC151J	CG0315
160	5%	NPO	.492	.159	.250	●CMC161J	—
180	5%	NPO	.570	.159	.375	●CMC181J	—
200	5%	NPO	.570	.159	.375	●CMC201J	—
220	5%	NPO	.570	.159	.375	●CMC221J	—
240	5%	NPO	.570	.159	.375	●CMC241J	—
270	5%	NPO	.642	.159	.375	●CMC271J	—
300	5%	NPO	.642	.159	.375	●CMC301J	—
330	5%	NPO	.642	.159	.375	●CMC331J	—
360	5%	NPO	.748	.159	.375	●CMC361J	—
390	5%	NPO	.748	.159	.375	●CMC391J	—
430	5%	NPO	.748	.159	.375	●CMC431J	—

TEMPERATURE COMPENSATING DISC CAPS — NPO							
1000 WVDC							
1	.25pf	NPO	.236	.236	.250	●CPC010C	CN0510
1.5	.25pf	NPO	.236	.236	.250	●CPC1R5C	CN0515
2.2	.25pf	NPO	.236	.236	.250	●CPC2R2C	CN0522
3.3	.25pf	NPO	.236	.236	.250	●CPC3R3C	CN0533
4.7	.25pf	NPO	.236	.236	.250	●CPC4R7C	CN0547
6.8	.5pf	NPO	.236	.236	.250	●CPC6R9D	CN0568
8.2	.5pf	NPO	.236	.236	.250	●CPC8R2D	—
9.6	.5pf	NPO	.236	.236	.250	●CPC9R6D	—
10	.5pf	NPO	.236	.236	.250	●CPC100D	CN0410
11	5%	NPO	.236	.236	.250	●CPC110J	—

●NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

Type C — Temperature Compensating Ceramic Discs



Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thick-ness In.	Lead Spacing In.	Catalog Number (NPO)	To Replace
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Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thick-ness In.	Lead Spacing In.	Catalog Number (NPO)	To Replace
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TEMPERATURE COMPENSATING DISC — N750

500 WVDC							
1.5	.25pf	N750	.236	.159	.250	●CMU1R5C	—
2.2	.25pf	N750	.236	.159	.250	●CMU2R2C	CG7522
3.3	.25pf	N750	.236	.159	.250	●CMU3R3C	CG7533
4.7	.25pf	N750	.236	.159	.250	●CMU4R7C	CG7547
5	.25pf	N750	.236	.159	.250	●CMU050C	CG7550
6.8	.5pf	N750	.236	.159	.250	●CMU6R8D	CG7568
7	.5pf	N750	.236	.159	.250	●CMU070D	—
8.2	.5pf	N750	.236	.159	.250	●CMU8R2D	—
9	.5pf	N750	.236	.150	.259	●CMU090D	—
10	.5pf	N750	.236	.159	.250	●CMU100D	CG7410
11	5%	N750	.236	.159	.250	●CMU110J	—
12	5%	N750	.236	.159	.250	●CMU120J	CG7412
13	5%	N750	.236	.159	.250	●CMU130J	—
15	5%	N750	.236	.159	.250	●CMU150J	CG7415
16	5%	N750	.236	.159	.250	●CMU160J	—
18	5%	N750	.236	.159	.250	●CMU180J	—
20	5%	N750	.236	.159	.250	●CMU200J	CG7420
22	5%	N750	.236	.159	.250	●CMU220J	CG7422
24	5%	N750	.236	.159	.250	●CMU240J	—
27	5%	N750	.236	.159	.250	●CMU270J	CG7427
30	5%	N750	.236	.159	.250	●CMU300J	—
33	5%	N750	.236	.159	.250	●CMU330J	CG7433
36	5%	N750	.236	.159	.250	●CMU360J	—
39	5%	N750	.236	.159	.250	●CMU390J	CG7439
43	5%	N750	.236	.159	.250	●CMU430J	—
47	5%	N750	.236	.159	.250	●CMU470J	CG7447
51	5%	N750	.236	.159	.250	●CMU510J	—
56	5%	N750	.236	.159	.250	●CMU560J	—
62	5%	N750	.236	.159	.250	●CMU620J	—
68	5%	N750	.291	.159	.250	●CMU680J	CG7468
75	5%	N750	.291	.159	.250	●CMU750J	—
82	5%	N750	.291	.159	.250	●CMU820J	CG7482
91	5%	N750	.291	.159	.250	●CMU910J	—
100	5%	N750	.291	.159	.250	●CMU101J	CG7310
110	5%	N750	.375	.159	.250	●CMU111J	—
120	5%	N750	.375	.159	.250	●CMU121J	—
130	5%	N750	.375	.159	.250	●CMU131J	—
150	5%	N750	.375	.159	.250	●CMU151J	CG7315
160	5%	N750	.375	.159	.250	●CMU161J	—
180	5%	N750	.375	.159	.250	●CMU181J	—
200	5%	N750	.433	.159	.250	●CMU201J	—
220	5%	N750	.433	.159	.250	●CMU221J	CG7322
240	5%	N750	.433	.159	.250	●CMU241J	—
270	5%	N750	.433	.159	.250	●CMU271J	CG7327
300	5%	N750	.492	.159	.250	●CMU301J	—
330	5%	N750	.492	.159	.250	●CMU331J	CG7333

TEMPERATURE COMPENSATING DISC CAPS — N750 (Continued)

1000 WVDC (Continued)							
43	5%	N750	.236	.236	.250	●CPU430J	—
47	5%	N750	.236	.236	.250	●CPU470J	CN7447
51	5%	N750	.291	.236	.250	●CPU510J	—
68	5%	N750	.291	.236	.250	●CPU680J	CN7468
82	5%	N750	.375	.236	.250	●CPU820J	CN7482
100	5%	N750	.375	.236	.250	●CPU101J	CN7310
120	5%	N750	.375	.236	.250	●CPU121J	—
150	5%	N750	.433	.236	.250	●CPU151J	CN7315
180	5%	N750	.433	.236	.250	●CPU181J	—
220	5%	N750	.492	.236	.250	●CPU221J	CN7322
270	5%	N750	.492	.236	.250	●CPU271J	CN7327
330	5%	N750	.570	.236	.375	●CPU331J	CN7333

TEMPERATURE COMPENSATING DISC CERAMICS — N1500

500 WVDC							
10	.5pf	N1500	.236	.236	.250	●CMW100D	CG15-410
12	5%	N1500	.236	.236	.250	●CMW120J	CG15-412
15	5%	N1500	.236	.236	.250	●CMW150J	CG15-415
18	5%	N1500	.236	.236	.250	●CMW180J	CG15-418
22	5%	N1500	.236	.236	.250	●CMW220J	—
27	5%	N1500	.236	.236	.250	●CMW270J	CG15-427
30	5%	N1500	.236	.236	.250	●CMW300J	CG15-430
39	5%	N1500	.236	.236	.250	●CMW390J	CG15-439
47	5%	N1500	.291	.236	.250	●CMW470J	CG15-447
51	5%	N1500	.291	.236	.250	●CMW510J	CG15-450
68	5%	N1500	.374	.236	.250	●CMW680J	CG15-468
82	5%	N1500	.374	.236	.250	●CMW820J	CG15-482
100	5%	N1500	.374	.236	.250	●CMW101J	CG15-310
110	5%	N1500	.374	.236	.250	●CMW111J	CG15-311
120	5%	N1500	.374	.236	.250	●CMW121J	CG15-312
150	5%	N1500	.374	.236	.250	●CMW151J	—
180	5%	N1500	.374	.236	.250	●CMW181J	—
220	5%	N1500	.433	.236	.250	●CMW221J	CG15-322
270	5%	N1500	.433	.236	.250	●CMW271J	CG15-327
330	5%	N1500	.492	.236	.250	●CMW331J	—
390	5%	N1500	.492	.236	.250	●CMW391J	CG15-339
470	5%	N1500	.590	.236	.375	●CMW471J	CG15-347
560	5%	N1500	.590	.236	.375	●CMW561J	CG15-356

TEMPERATURE COMPENSATING DISC CERAMICS — N1500

1000 WVDC							
10	.5pf	N1500	.236	.236	.250	●CPW100D	CN15-410
12	5%	N1500	.236	.236	.250	●CPW120J	CN15-412
15	5%	N1500	.236	.236	.250	●CPW150J	CN15-415
18	5%	N1500	.236	.236	.250	●CPW180J	CN15-418
22	5%	N1500	.236	.236	.250	●CPW220J	CN15-422
27	5%	N1500	.236	.236	.250	●CPW270J	CN15-427
30	5%	N1500	.236	.236	.250	●CPW300J	CN15-430
39	5%	N1500	.236	.236	.250	●CPW390J	CN15-439
47	5%	N1500	.236	.236	.250	●CPW470J	CN15-447
51	5%	N1500	.236	.236	.250	●CPW510J	CN15-450
68	5%	N1500	.236	.236	.250	●CPW680J	CN15-468
82	5%	N1500	.291	.236	.250	●CPW820J	CN15-482
100	5%	N1500	.291	.236	.250	●CPW101J	CN15-310
110	5%	N1500	.291	.236	.250	●CPW111J	CN15-311
120	5%	N1500	.291	.236	.250	●CPW121J	CN15-312
150	5%	N1500	.433	.236	.250	●CPW151J	—
180	5%	N1500	.433	.236	.250	●CPW181J	—
220	5%	N1500	.492	.236	.250	●CPW221J	CN15-322
270	5%	N1500	.492	.236	.250	●CPW271J	CN15-327
330	5%	N1500	.590	.236	.375	●CPW331J	—
390	5%	N1500	.590	.236	.375	●CPW391J	CN15-339
470	5%	N1500	.748	.236	.375	●CPW471J	CN15-347
560	5%	N1500	.748	.236	.375	●CPW561J	CN15-356

●NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →

•Temperature Compensating Ceramic Discs Type C

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thick-ness In.	Lead Spacing In.	Catalog Number (NPO)	To Replace
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TEMPERATURE COMPENSATING DISC CAPS — S2L

3,000 WVDC							
15	10%	S2L	.394	.236	.375	●CTZ150K	3DY415
22	10%	S2L	.394	.236	.375	●CTZ220K	3DY422
27	10%	S2L	.394	.236	.375	●CTZ270K	3DY427
33	10%	S2L	.394	.236	.375	●CTZ330K	3DY433
39	10%	S2L	.394	.236	.375	●CTZ390K	3DY439
47	10%	S2L	.394	.236	.375	●CTZ470K	3DY447
56	10%	S2L	.394	.236	.375	●CTZ560K	3DY456
68	10%	S2L	.590	.236	.375	●CTZ680K	3DY468
82	10%	S2L	.590	.236	.375	●CTZ820K	3DY482
100	10%	S2L	.472	.236	.375	●CTZ101K	3DY310
120	10%	S2L	.472	.236	.375	●CTZ121K	3DY312
130	10%	S2L	.472	.236	.375	●CTZ131K	3DY315
150	10%	S2L	.472	.236	.375	●CTZ151K	3DY315
180	10%	S2L	.787	.236	.375	●CTZ181K	3DY318
200	10%	S2L	.787	.236	.375	●CTZ201K	3DY320
220	10%	S2L	.787	.236	.375	●CTZ221K	3DY322
270	10%	S2L	.787	.236	.375	●CTZ271K	3DY327
300	10%	S2L	.787	.236	.375	●CTZ301K	—
330	10%	S2L	.905	.236	.375	●CTZ331K	3DY333
390	10%	S2L	.905	.236	.375	●CTZ391K	3DY339

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thick-ness In.	Lead Spacing In.	Catalog Number (NPO)	To Replace
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TEMPERATURE COMPENSATING DISC CAPS — N1500

6,000 WVDC							
15	10%	N1500	.590	.312	.500	●CVW150K	6DY415
22	10%	N1500	.590	.312	.500	●CVW220K	6DY422
27	10%	N1500	.720	.312	.500	●CVW270K	6DY427
33	10%	N1500	.720	.312	.500	●CVW330K	6DY433
39	10%	N1500	.720	.312	.500	●CVW390K	6DY439
47	10%	N1500	.810	.312	.500	●CVW470K	6DY447
56	10%	N1500	.810	.312	.500	●CVW560K	6DY456
68	10%	N1500	.910	.312	.500	●CVW680K	6DY468
82	10%	N1500	.970	.312	.500	●CVW820K	6DY482
100	10%	N1500	.970	.312	.500	●CVW101K	6DY310
130	10%	N1500	1.09	.312	.500	●CVW131K	6DY313
150	10%	N1500	1.09	.312	.500	●CVW151K	6DY315
180	10%	N1500	1.09	.312	.500	●CVW181K	6DY318

●NEW PRODUCT

Consult your local Mallory distributor for price information.

Specifications subject to change without notice.

•Type S Temperature/Frequency Stable Disc Ceramic Caps

MALLORY

These discs provide exceptional stability in applications where temperature and frequency are critical. Exhibit minimum variation in capacity and power factor with change in frequency from audio to high radio frequencies. Suitable for use in wide band audio of R.F. coupling and bypass applications. Can be used in low "Q" resonant circuits as well as R-C response shaping networks and feedback loops in addition to conventional applications. Can be used as general replacement for mica and general purpose tubular types. Insulation Resistance: Greater than 10,000 megohms at 500 VDC.

HIGHLIGHTS

Capacitance Range—100 to 10,000 picofarads
 Voltage—500 to 1,000 VDC
 Power Factor—1.5% (Max.)
 Temperature Range— -30°C to +85°C
 Operating Frequency—1,000 Hz

TEMPERATURE/FREQUENCY STABLE DISC CERAMIC CAPS

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
500 WVDC							
100	10%	Y5E	.236	.157	.250	●SM101K	JG310
120	10%	Y5E	.236	.157	.250	●SM121K	JG312
150	10%	Y5E	.236	.157	.250	●SM151K	JE315/JG315
180	10%	Y5E	.236	.157	.250	●SM181K	—
220	10%	Y5E	.236	.157	.250	●SM221K	JE322/JG322
270	10%	Y5E	.236	.157	.250	●SM271K	—
330	10%	Y5E	.236	.157	.250	●SM331K	JG333
390	10%	Y5E	.236	.157	.250	●SM391K	—
470	10%	Y5E	.236	.157	.250	●SM471K	JE347/JG347/ JG350
560	10%	Y5E	.236	.157	.250	●SM561K	JE356/JG356
680	10%	Y5E	.236	.157	.250	●SM681K	JE368/JG368
820	10%	Y5E	.291	.157	.250	●SM821K	JE382/JG382/ JG375
1000	10%	Y5E	.339	.157	.250	●SM102K	JE210/JG210
1200	10%	Y5E	.339	.157	.250	●SM122K	JE212/JG212
1500	10%	Y5E	.374	.157	.250	●SM152K	JE215/JG215
1800	10%	Y5E	.374	.157	.250	●SM182K	JE218/JG218
2200	10%	Y5E	.433	.157	.250	●SM222K	JE222/JG222/ JG220
2700	10%	Y5E	.492	.157	.250	●SM272K	JE227/JG227
3300	10%	Y5E	.492	.157	.250	●SM332K	JE233/JG233
3900	10%	Y5E	.590	.157	.375	●SM392K	JE239/JG239
4700	10%	Y5E	.590	.157	.375	●SM472K	JE247/JG247
5600	10%	Y5E	.669	.157	.375	●SM562K	JE250/JG250/ JE256
6800	10%	Y5E	.748	.157	.375	●SM682K	JE268/JG268
8200	10%	Y5E	.748	.157	.375	●SM822K	JE282/JG282
10000	10%	Y5E	.748	.157	.375	●SM103K	JE110/JG110

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
1000 WVDC							
100	10%	Y5E	.236	.236	.250	●SP101K	JF482/JF310/ JL310
120	10%	Y5E	.236	.236	.250	●SP121K	JF312
150	10%	Y5E	.236	.236	.250	●SP151K	JF315/JL315
180	10%	Y5E	.236	.236	.250	●SP181K	—
220	10%	Y5E	.236	.236	.250	●SP221K	JF322/JL322
270	10%	Y5E	.236	.236	.250	●SP271K	—
330	10%	Y5E	.236	.236	.250	●SP331K	JF333/JL333
390	10%	Y5E	.236	.236	.250	●SP391K	—
470	10%	Y5E	.236	.236	.250	●SP471K	JF347/JL347
560	10%	Y5E	.291	.236	.250	●SP561K	JF350/JF356/ JL356
680	10%	Y5E	.291	.236	.250	●SP681K	JF368/JL368
820	10%	Y5E	.339	.236	.250	●SP821K	JF375/JL375 JF382/JL382
1000	10%	Y5E	.374	.236	.250	●SP102K	JF210/JL210
1200	10%	Y5E	.374	.236	.250	●SP122K	JF212/JL212
1500	10%	Y5E	.433	.236	.250	●SP152K	JF215/JL215
1800	10%	Y5E	.433	.236	.250	●SP182K	JF218/JL218
2200	10%	Y5E	.492	.236	.250	●SP222K	JF220/JL220 JF222/JL222
2700	10%	Y5E	.590	.236	.375	●SP272K	JL227
3300	10%	Y5E	.590	.236	.375	●SP332K	JL233/JF233
3900	10%	Y5E	.669	.236	.375	●SP392K	JF239/JL239
4700	10%	Y5E	.669	.236	.375	●SP472K	JF247/JL247
5600	10%	Y5E	.748	.236	.375	●SP562K	JF250/JL250

• EIA Class 2, High Voltage Disc Ceramic Type H

These discs are designed around EIA Test Specification RS-165A. These capacitors are designed for low frequency use. Highly efficient for bypass and coupling applications.

HIGHLIGHTS

Capacitance Range—100 to 10,000 picofarads
 Voltage—2,000 to 6,000 VDC
 Power Factor—2.5% (Max.)
 Insulation Resistance—10,000 megohms (min.)
 Operating Frequency—1,000 Hz
 Temperature Range— -35°C to +85°C

HIGH VOLTAGE CLASS 2 DISC CERAMICS

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace	Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
2,000 WVDC								3,000 WVDC (Continued)							
1,000	20%	Y5U	.394	.236	.250	●HS102M	2HV210	3,900	20%	Y5U	.787	.236	.375	●HT392M	3HV239
10,000	20%	Y5U	.905	.236	.375	●HS103M	2HV110	4,700	20%	Y5U	.787	.236	.375	●HT472M	3HV247
3,000 WVDC								6,000 WVDC							
220	20%	Y5P	.394	.236	.375	●HT221M	3HV322	100	20%	Y5U	.590	.312	.500	●HV101M	6HV310
270	20%	Y5P	.394	.236	.375	●HT271M	3HV327	120	20%	Y5U	.590	.312	.500	●HV121M	6HV312
330	20%	Y5P	.394	.236	.375	●HT331M	3HV333	130	20%	Y5U	.590	.312	.500	●HV131M	6HV313
470	20%	Y5P	.394	.236	.375	●HT471M	3HV347	150	20%	Y5U	.590	.312	.500	●HV151M	6HV315
560	20%	Y5P	.394	.236	.375	●HT561M	3HV356	220	20%	Y5U	.590	.312	.500	●HV221M	6HV322
680	20%	Y5P	.472	.236	.375	●HT681M	3HV368	270	20%	Y5U	.590	.312	.500	●HV271M	6HV327
750	20%	Y5P	.472	.236	.375	●HT751M	3HV375	330	20%	Y5U	.800	.312	.500	●HV331M	6HV333
820	20%	Y5P	.472	.236	.375	●HT821M	3HV382	390	20%	Y5U	.800	.312	.500	●HV391M	6HV339
1,000	20%	Y5U	.394	.236	.375	●HT102M	3HV210	470	20%	Y5U	.800	.312	.500	●HV471M	6HV347
1,200	20%	Y5U	.590	.236	.375	●HT122M	3HV212	560	20%	Y5U	.800	.312	.500	●HV561M	6HV356
1,500	20%	Y5U	.590	.236	.375	●HT152M	3HV215	680	20%	Y5U	.975	.312	.500	●HV681M	6HV368
1,800	20%	Y5U	.590	.236	.375	●HT182M	3HV218	750	20%	Y5U	.975	.312	.500	●HV751M	6HV375
2,200	20%	Y5U	.590	.236	.375	●HT222M	3HV222	820	20%	Y5U	.975	.312	.500	●HV821M	6HV382
3,300	20%	Y5U	.787	.236	.375	●HT332M	3HV233	1,000	20%	Y5U	.975	.312	.500	●HV102M	6HV210

• U/L Recognized, Across-The-Line, A-C Bypass Disc Ceramics Type U

Underwriters Laboratories recognized for use in across the line and AC bypass applications rated 150V rms @ 60Hz (210 volts peak AC plus DC). These capacitors meet the requirements of their Bulletin 492, plus "across the line". The UN types also meet or exceed all of the EIA RS-165, Class 2 ceramic disc capacitors specifications for Z5U.

HIGHLIGHTS

Capacitance Range—1,000 to 10,000 picofarads
 Voltage—150V rms, (1,400 VDC)
 Power Factor—1.5% @ 1KC (initial)
 Temperature Range— +10°C to +85°C
 Operating Frequency—50–60 Hz

U/L RECOGNIZED, ACROSS-THE-LINE, A-C BYPASS DISC CERAMIC CAPACITORS

Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace	Cap. (PF)	Tol. ±	Temp. Coef.	Dia. In.	Thickness In.	Lead Spacing In.	Catalog Number	To Replace
150 VAC (RMS); 1400 WVDC								150 VAC (RMS); 1400 WVDC (Continued)							
1,000	20%	Z5U	.437	.187	.375	●UN102M	UAC210	3,900	20%	Z5U	.590	.187	.375	●UN392M	—
1,500	20%	Z5U	.590	.187	.375	●UN152M	—	5,000	20%	Z5U	.790	.187	.375	●UN502M	UAC250
2,000	20%	Z5U	.590	.187	.375	●UN202M	—	6,800	20%	Z5U	.790	.187	.375	●UN682M	—
2,700	20%	Z5U	.590	.187	.375	●UN272M	—	8,200	20%	Z5U	1.050	.187	.375	●UN822M	—
3,000	20%	Z5U	.590	.187	.375	●UN302M	—	10,000	20%	Z5U	1.050	.187	.375	●UN103M	UAC110

●NEW PRODUCT

Consult your local Mallory distributor for price information.

Type C-C Multi Layer Ceramic Capacitors

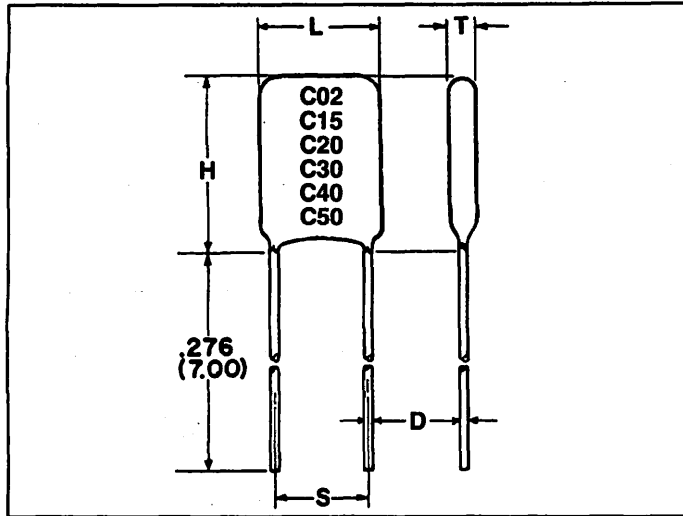


The Mallory dipped ceramic capacitors provide maximum range, conformally-coated capacitors in three dielectrics — COG Ultra-Stable; X7R Stable and Z5U General Purpose. The six case sizes include over 300 CV values in a capacitance range of 1.0pF to 6.8μF in 50, 100, and 200 volts. Their reliable performance is built-in through automated manufacture and precision process control techniques that assure uniform dielectric thickness, excellent electrode integrity, and electrode-to-termination continuity. Internal construction consists of

the same superior monolithic body used in Mallory's molded capacitors. Encapsulation consists of a multi-layer moisture and shock resistant coating that meets the flame test requirements of Underwriter's Laboratory Standard 94.

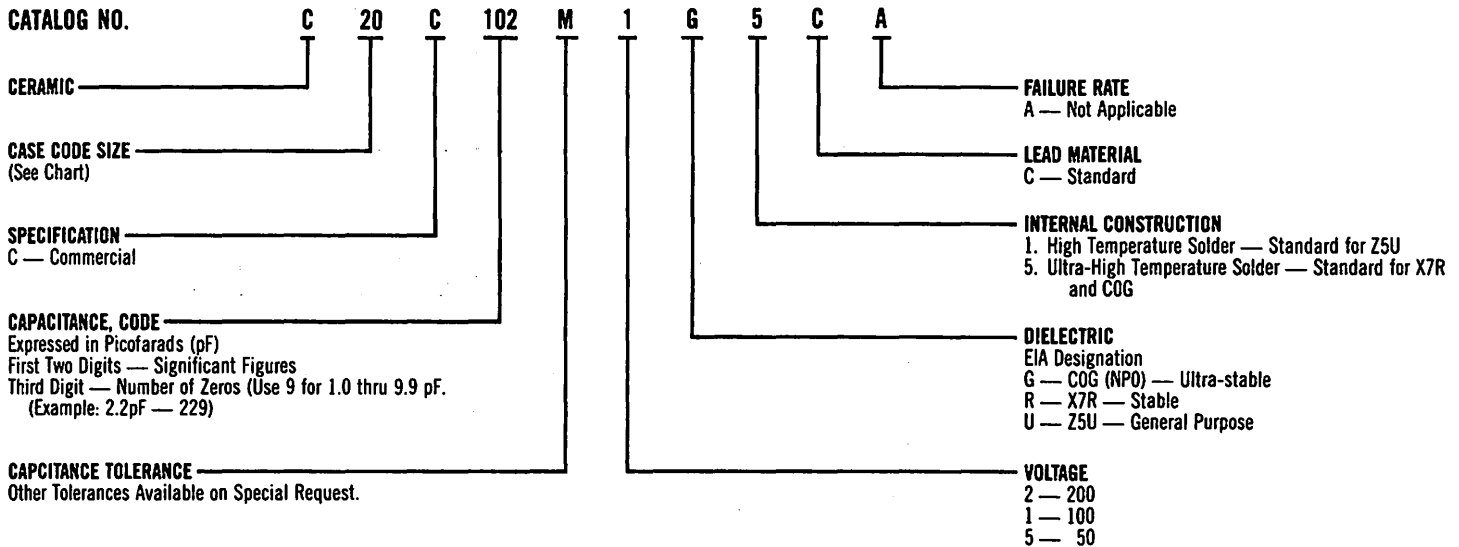
Additional CV values, sizes and lead configurations are available on special order. For pricing refer to price sheet No. 318. Replaces: MC-; 3417 to 3422; CZ; CW; CN; DMR; 5000 series; 8100 series; C312 to C350; 1C to 5C; 2100 series.

DIMENSIONS — INCHES & (MILLIMETERS)



Case Code	L	H	T	S	D & Awg #
●C02	.120 (3.05)	.160 (4.06)	.100 (2.54)	.100 (2.54)	.016 (.41) 26
●C15	.150 (3.81)	.210 (5.33)	.100 (2.54)	.100 (2.54)	.016 (.41) 26
C20	.200 (5.08)	.260 (6.60)	.125 (3.18)	.100 (2.54)	.020 (.51) 24
C30	.300 (7.62)	.360 (9.14)	.150 (3.81)	.200 (5.08)	.020 (.51) 24
C40	.400 (10.16)	.460 (11.68)	.150 (3.81)	.200 (5.08)	.020 (.51) 24
C50	.500 (12.70)	.560 (14.22)	.200 (5.08)	.400 (10.16)	.025 (.64) 22

ORDERING INFORMATION



RATINGS & CATALOG NUMBER REFERENCE

● STABLE TEMPERATURE CHARACTERISTIC: EIA X7R

● 200 Volts		● 100 Volts		● 50 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number	Capacitance	Catalog Number
● CASE CODE C02					
180 pF	C02C181*2R5CA	820 pF	C02C821*1R5CA	3,300 pF	C02C332*5R5CA
220 pF	C02C221*2R5CA	1,000 pF	C02C102*1R5CA	3,900 pF	C02C392*5R5CA
270 pF	C02C271*2R5CA	1,200 pF	C02C122*1R5CA	4,700 pF	C02C472*5R5CA
330 pF	C02C331*2R5CA	1,500 pF	C02C152*1R5CA	5,600 pF	C02C562*5R5CA
390 pF	C02C391*2R5CA	1,800 pF	C02C182*1R5CA	6,800 pF	C02C682*5R5CA
470 pF	C02C471*2R5CA	2,200 pF	C02C222*1R5CA	.01 μF	C02C103*5R5CA
560 pF	C02C561*2R5CA	2,700 pF	C02C272*1R5CA	.012 μF	C02C123*5R5CA
680 pF	C02C681*2R5CA				

* = Specify Tolerance. K = ±10%; M = ±20%.

● NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

RATINGS & CATALOG NUMBER REFERENCE (Continued) STABLE TEMPERATURE CHARACTERISTIC: EIA X7R (Continued)

•200 Volts		•100 Volts		•50 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE C15					
270 pF	C15C271*2R5CA	1,000 pF	C15C102*1R5CA	5,600 pF	C15C562*5R5CA
330 pF	C15C331*2R5CA	1,200 pF	C15C122*1R5CA	6,800 pF	C15C682*5R5CA
390 pF	C15C391*2R5CA	1,500 pF	C15C152*1R5CA	.01 μ F	C15C103*5R5CA
470 pF	C15C471*2R5CA	1,800 pF	C15C182*1R5CA	.012 μ F	C15C123*5R5CA
560 pF	C15C561*2R5CA	2,200 pF	C15C222*1R5CA	.015 μ F	C15C153*5R5CA
680 pF	C15C681*2R5CA	2,700 pF	C15C272*1R5CA	.018 μ F	C15C183*5R5CA
820 pF	C15C821*2R5CA	3,300 pF	C15C332*1R5CA	.022 μ F	C15C223*5R5CA
1,000 pF	C15C102*2R5CA	3,900 pF	C15C392*1R5CA		
1,200 pF	C15C122*2R5CA	4,700 pF	C15C472*1R5CA		
CASE CODE C20					
470 pF	C20C471*2R5CA	4,700 pF	C20C472*1R5CA	.012 μ F	C20C123*5R5CA
560 pF	C20C561*2R5CA	5,600 pF	C20C562*1R5CA	.015 μ F	C20C153*5R5CA
680 pF	C20C681*2R5CA	6,800 pF	C20C682*1R5CA	.018 μ F	C20C183*5R5CA
820 pF	C20C821*2R5CA	8,200 pF	C20C822*1R5CA	.022 μ F	C20C223*5R5CA
1,000 pF	C20C102*2R5CA	.01 μ F	C20C103*1R5CA	.027 μ F	C20C273*5R5CA
1,200 pF	C20C122*2R5CA	.012 μ F	C20C123*1R5CA	.033 μ F	C20C333*5R5CA
1,500 pF	C20C152*2R5CA	.015 μ F	C20C153*1R5CA	.039 μ F	C20C393*5R5CA
1,800 pF	C20C182*2R5CA	.018 μ F	C20C183*1R5CA	.047 μ F	C20C473*5R5CA
2,200 pF	C20C222*2R5CA	.022 μ F	C20C223*1R5CA	.056 μ F	C20C563*5R5CA
2,700 pF	C20C272*2R5CA	.027 μ F	C20C273*1R5CA	.068 μ F	C20C683*5R5CA
3,300 pF	C20C332*2R5CA	.033 μ F	C20C333*1R5CA	.082 μ F	C20C823*5R5CA
3,900 pF	C20C392*2R5CA	.039 μ F	C20C393*1R5CA	.1 μ F	C20C104*5R5CA
4,700 pF	C20C472*2R5CA	.047 μ F	C20C473*1R5CA	.12 μ F	C20C124*5R5CA
5,600 pF	C20C562*2R5CA			.15 μ F	C20C154*5R5CA
6,800 pF	C20C682*2R5CA			.18 μ F	C20C184*5R5CA
8,200 pF	C20C822*2R5CA				
.01 μ F	C20C103*2R5CA				
.012 μ F	C20C123*2R5CA				
CASE CODE C30					
4,700 pF	C30C472*2R5CA	.012 μ F	C30C123*1R5CA	.1 μ F	C30C104*5R5CA
5,600 pF	C30C562*2R5CA	.015 μ F	C30C153*1R5CA	.12 μ F	C30C124*5R5CA
6,800 pF	C30C682*2R5CA	.018 μ F	C30C183*1R5CA	.15 μ F	C30C154*5R5CA
8,200 pF	C30C822*2R5CA	.022 μ F	C30C223*1R5CA	.18 μ F	C30C184*5R5CA
.010 μ F	C30C103*2R5CA	.027 μ F	C30C273*1R5CA	.22 μ F	C30C224*5R5CA
.012 μ F	C30C123*2R5CA	.033 μ F	C30C333*1R5CA	.27 μ F	C30C274*5R5CA
.015 μ F	C30C153*2R5CA	.039 μ F	C30C393*1R5CA	.33 μ F	C30C334*5R5CA
.018 μ F	C30C183*2R5CA	.047 μ F	C30C473*1R5CA	.39 μ F	C30C394*5R5CA
.022 μ F	C30C223*2R5CA	.056 μ F	C30C563*1R5CA	.47 μ F	C30C474*5R5CA
.027 μ F	C30C273*2R5CA	.068 μ F	C30C683*1R5CA	.56 μ F	C30C564*5R5CA
.033 μ F	C30C333*2R5CA	.082 μ F	C30C823*1R5CA	.68 μ F	C30C684*5R5CA
.039 μ F	C30C393*2R5CA	.1 μ F	C30C104*1R5CA	.82 μ F	C30C824*5R5CA
.047 μ F	C30C473*2R5CA	.12 μ F	C30C124*1R5CA	1.0 μ F	C30C105*5R5CA
.056 μ F	C30C563*2R5CA	.15 μ F	C30C154*1R5CA	1.2 μ F	C30C125*5R5CA
		.18 μ F	C30C184*1R5CA	1.5 μ F	C30C155*5R5CA
		.22 μ F	C30C224*1R5CA		
		.27 μ F	C30C274*1R5CA		
CASE CODE: C40					
.068 μ F	C40C683*2R5CA	.33 μ F	C40C334*1R5CA	1.8 μ F	C40C185*5R5CA
.082 μ F	C40C823*2R5CA	.39 μ F	C40C394*1R5CA	2.0 μ F	C40C205*5R5CA
.1 μ F	C40C104*2R5CA	.47 μ F	C40C474*1R5CA	2.2 μ F	C40C225*5R5CA
.12 μ F	C40C124*2R5CA	.56 μ F	C40C564*1R5CA	2.7 μ F	C40C275*5R5CA
.15 μ F	C40C154*2R5CA				
CASE CODE: C50					
.18 μ F	C50C184*2R5CA	.68 μ F	C50C684*1R5CA	2.2 μ F	C50C225*5R5CA
.22 μ F	C50C224*2R5CA	.82 μ F	C50C824*1R5CA	2.7 μ F	C50C275*5R5CA
.27 μ F	C50C274*2R5CA	1.0 μ F	C50C105*1R5CA	3.3 μ F	C50C335*5R5CA
.33 μ F	C50C334*2R5CA	1.2 μ F	C50C125*1R5CA	3.9 μ F	C50C395*5R5CA
		1.5 μ F	C50C155*1R5CA	4.7 μ F	C50C475*5R5CA
				5.6 μ F	C50C565*5R5CA
				6.8 μ F	C50C685*5R5CA

* = Specify Tolerance. K = \pm 10%; M = \pm 20%.

Type C_C Multi Layer Ceramic Capacitors



ULTRA-STABLE TEMPERATURE CHARACTERISTIC: EIA COG, VERNACULAR NPO

● 200 Volts		● 100 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C02			
1.0 pF	C02C109+2G5CA	120 pF	C02C121+1G5CA
1.5 pF	C02C159+2G5CA	150 pF	C02C151+1G5CA
2.2 pF	C02C229+2G5CA	180 pF	C02C181+1G5CA
2.7 pF	C02C279+2G5CA	220 pF	C02C221+1G5CA
3.3 pF	C02C339+2G5CA	270 pF	C02C271+1G5CA
4.7 pF	C02C479+2G5CA		
5.6 pF	C02C569+2G5CA		
6.8 pF	C02C689+2G5CA		
8.2 pF	C02C829+2G5CA		
10 pF	C02C100+2G5CA		
12 pF	C02C120+2G5CA		
15 pF	C02C150+2G5CA		
18 pF	C02C180+2G5CA		
22 pF	C02C220+2G5CA		
27 pF	C02C270+2G5CA		
33 pF	C02C330+2G5CA		
39 pF	C02C390+2G5CA		
47 pF	C02C470+2G5CA		
56 pF	C02C560+2G5CA		
68 pF	C02C680+2G5CA		
82 pF	C02C820+2G5CA		
100 pF	C02C101+2G5CA		
120 pF	C02C121+2G5CA		
150 pF	C02C151+2G5CA		

● 200 Volts		● 100 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C15			
1.0 pF	C15C109+2G5CA	390 pF	C15C391+1G5CA
1.5 pF	C15C159+2G5CA	470 pF	C15C471+1G5CA
2.2 pF	C15C229+2G5CA	560 pF	C15C561+1G5CA
2.7 pF	C15C279+2G5CA	680 pF	C15C681+1G5CA
3.3 pF	C15C339+2G5CA		
4.7 pF	C15C479+2G5CA		
5.6 pF	C15C569+2G5CA		
6.8 pF	C15C689+2G5CA		
8.2 pF	C15C829+2G5CA		
10 pF	C15C100+2G5CA		
12 pF	C15C120+2G5CA		
15 pF	C15C150+2G5CA		
18 pF	C15C180+2G5CA		
22 pF	C15C220+2G5CA		
27 pF	C15C270+2G5CA		
33 pF	C15C330+2G5CA		
39 pF	C15C390+2G5CA		
47 pF	C15C470+2G5CA		
56 pF	C15C560+2G5CA		
68 pF	C15C680+2G5CA		
82 pF	C15C820+2G5CA		
100 pF	C15C101+2G5CA		
120 pF	C15C121+2G5CA		
150 pF	C15C151+2G5CA		
180 pF	C15C181+2G5CA		
220 pF	C15C221+2G5CA		
270 pF	C15C271+2G5CA		
330 pF	C15C331+2G5CA		

● 200 Volts		● 100 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C20			
1.0 pF	C20C109+2G5CA	1,000 pF	C20C102+1G5CA
1.5 pF	C20C159+2G5CA	1,200 pF	C20C122+1G5CA
2.2 pF	C20C229+2G5CA	1,500 pF	C20C152+1G5CA
2.7 pF	C20C279+2G5CA	1,800 pF	C20C182+1G5CA
3.3 pF	C20C339+2G5CA	2,200 pF	C20C222+1G5CA
4.7 pF	C20C479+2G5CA	2,700 pF	C20C272+1G5CA
5.6 pF	C20C569+2G5CA	3,300 pF	C20C332+1G5CA
6.8 pF	C20C689+2G5CA	3,900 pF	C20C392+1G5CA
8.2 pF	C20C829+2G5CA	4,700 pF	C20C472+1G5CA
10 pF	C20C100+2G5CA	5,600 pF	C20C562+1G5CA

● 200 Volts		● 100 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C20 (Continued)			
12 pF	C20C120+2G5CA		
15 pF	C20C150+2G5CA		
18 pF	C20C180+2G5CA		
22 pF	C20C220+2G5CA		
27 pF	C20C270+2G5CA		
33 pF	C20C330+2G5CA		
39 pF	C20C390+2G5CA		
47 pF	C20C470+2G5CA		
56 pF	C20C560+2G5CA		
68 pF	C20C680+2G5CA		
82 pF	C20C820+2G5CA		
100 pF	C20C101+2G5CA		
120 pF	C20C121+2G5CA		
150 pF	C20C151+2G5CA		
180 pF	C20C181+2G5CA		
220 pF	C20C221+2G5CA		
270 pF	C20C271+2G5CA		
330 pF	C20C331+2G5CA		
390 pF	C20C391+2G5CA		
470 pF	C20C471+2G5CA		
560 pF	C20C561+2G5CA		
680 pF	C20C681+2G5CA		
820 pF	C20C821+2G5CA		
1,000 pF	C20C102+2G5CA		
1,200 pF	C20C122+2G5CA		
1,500 pF	C20C152+2G5CA		
1,800 pF	C20C182+2G5CA		
2,200 pF	C20C222+2G5CA		
2,700 pF	C20C272+2G5CA		
3,300 pF	C20C332+2G5CA		

● 200 Volts		● 100 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C30			
1,000 pF	C30C102+2G5CA	2,200 pF	C30C222+1G5CA
1,200 pF	C30C122+2G5CA	2,700 pF	C30C272+1G5CA
1,500 pF	C30C152+2G5CA	3,300 pF	C30C332+1G5CA
1,800 pF	C30C182+2G5CA	3,900 pF	C30C392+1G5CA
2,200 pF	C30C222+2G5CA	4,700 pF	C30C472+1G5CA
2,700 pF	C30C272+2G5CA	5,600 pF	C30C562+1G5CA
3,300 pF	C30C332+2G5CA	6,800 pF	C30C682+1G5CA
3,900 pF	C30C392+2G5CA	8,200 pF	C30C822+1G5CA
4,700 pF	C30C472+2G5CA	.01 μF	C30C103+1G5CA
5,600 pF	C30C562+2G5CA	.015 μF	C30C153+1G5CA
6,800 pF	C30C682+2G5CA	.018 μF	C30C183+1G5CA
8,200 pF	C30C822+2G5CA	.022 μF	C30C223+1G5CA
.01 μF	C30C103+2G5CA	.027 μF	C30C273+1G5CA
.015 μF	C30C153+2G5CA	.033 μF	C30C333+1G5CA

● 200 Volts		● 100 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C40			
.018 μF	C40C183+2G5CA	.039 μF	C40C393+1G5CA
.022 μF	C40C223+2G5CA	.047 μF	C40C473+1G5CA
.027 μF	C40C273+2G5CA	.056 μF	C40C563+1G5CA
.033 μF	C40C333+2G5CA	.068 μF	C40C683+1G5CA

● 200 Volts		● 100 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C50			
.022 μF	C50C223+2G5CA	.082 μF	C50C823+1G5CA
.027 μF	C50C273+2G5CA	.1 μF	C50C104+1G5CA
.033 μF	C50C333+2G5CA	.12 μF	C50C124+1G5CA
.039 μF	C50C393+2G5CA	.15 μF	C50C154+1G5CA
.047 μF	C50C473+2G5CA	.18 μF	C50C184+1G5CA
.056 μF	C50C563+2G5CA		
.068 μF	C50C683+2G5CA		
.082 μF	C50C823+2G5CA		
.1 μF	C50C104+2G5CA		

† = J = ±5%; K = ±10%.

● NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

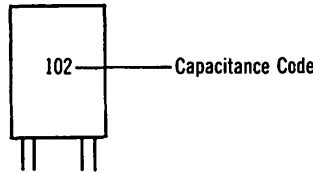
GENERAL-PURPOSE TEMPERATURE CHARACTERISTIC: EIA Z5U (STANDARD)

100 Volts		50 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
● CASE CODE: C02			
1,500 pF	C02C152*1U1CA	3,300 pF	C02C332*5U1CA
2,200 pF	C02C222*1U1CA	4,700 pF	C02C472*5U1CA
		6,800 pF	C02C682*5U1CA
		.01 μ F	C02C103*5U1CA
● CASE CODE: C15			
1,500 pF	C15C152*1U1CA	6,800 pF	C15C682*5U1CA
2,200 pF	C15C222*1U1CA	.01 μ F	C15C103*5U1CA
3,300 pF	C15C332*1U1CA	.015 μ F	C15C153*5U1CA
4,700 pF	C15C472*1U1CA	.022 μ F	C15C223*5U1CA
CASE CODE: C20			
.01 μ F	C20C103*1U1CA	.022 μ F	C20C223*5U1CA
.015 μ F	C20C153*1U1CA	.033 μ F	C20C333*5U1CA
.022 μ F	C20C223*1U1CA	.047 μ F	C20C473*5U1CA
.033 μ F	C20C333*1U1CA	.068 μ F	C20C683*5U1CA
.047 μ F	C20C473*1U1CA	.1 μ F	C20C104*5U1CA
.068 μ F	C20C683*1U1CA	.15 μ F	C20C154*5U1CA
		.22 μ F	C20C224*5U1CA

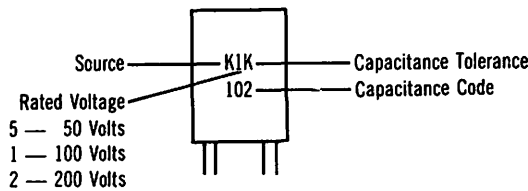
100 Volts		50 Volts	
Capacitance	Catalog Number	Capacitance	Catalog Number
CASE CODE: C30			
.022 μ F	C30C223*1U1CA	.1 μ F	●C30C104*5U1CA
.033 μ F	C30C333*1U1CA	.15 μ F	●C30C154*5U1CA
.047 μ F	C30C473*1U1CA	.22 μ F	●C30C224*5U1CA
.068 μ F	C30C683*1U1CA	.33 μ F	●C30C334*5U1CA
.1 μ F	C30C104*1U1CA	.47 μ F	C30C474*5U1CA
.15 μ F	C30C154*1U1CA	.68 μ F	C30C684*5U1CA
.22 μ F	C30C224*1U1CA	1.0 μ F	C30C105*5U1CA
.33 μ F	C30C334*1U1CA	1.5 μ F	C30C155*5U1CA
CASE CODE: C40			
.33 μ F	C40C334*1U1CA	1.5 μ F	C40C155*5U1CA
.47 μ F	C40C474*1U1CA	2.2 μ F	C40C225*5U1CA
.68 μ F	C40C684*1U1CA		
CASE CODE: C50			
1.0 μ F	C50C105*1U1CA	3.3 μ F	C50C335*5U1CA
1.5 μ F	C50C155*1U1CA	4.7 μ F	C50C475*5U1CA
		6.8 μ F	C50C685*5U1CA

* = Specify Tolerance. K = \pm 10%; M = \pm 20%.

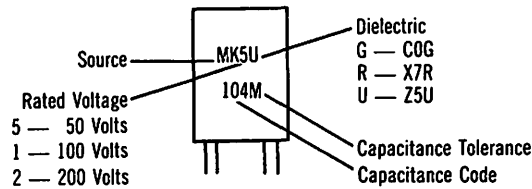
CAPACITOR MARKINGS
SIZE C02 & C15



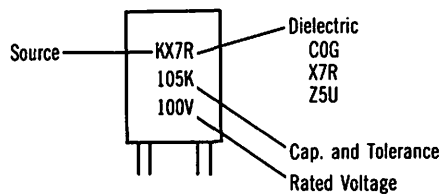
SIZE C20



SIZE C30

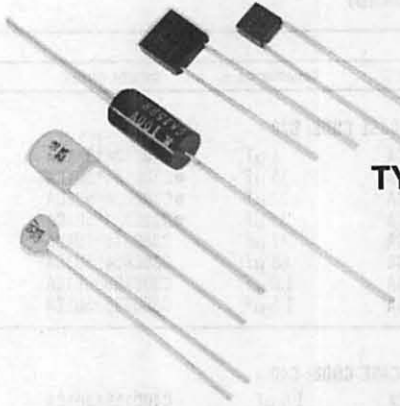


SIZE C40 & C50



● NEW PRODUCT

Consult your local Mallory distributor for price information.



TYPICAL EXAMPLES

The basic capacitor element is called a chip and consists of formulated ceramic dielectric materials in layers interspersed with metal electrode layers. The entire structure is fired together at high temperature, after which conductive terminations are applied on opposite ends to contact protruding electrode edges. Chips may be terminated with materials suitable for hybrid-circuit substrate assembly. More usually, chips are furnished with protecting encapsulation and leadwires.

Mallory monolithic ceramic capacitors are produced in a plant designed specifically for capacitor manufacture. The process features a high degree of mechanization as well as precise controls over raw materials and process conditions. Manufacturing is supplemented by extensive Technology, Engineering, and Quality Assurance programs. Extensive application in aerospace and military programs attests to the reliability of Mallory capacitors. No capacitors exceed the failure rate qualifications held by Mallory capacitors under military specifications.

Mallory ceramic capacitors are offered in the most popular temperature characteristics. These are designated by the Electronics Industry Association (EIA), the stable X7R (military BX or BR). A wide range of sizes and lead arrangements are available to provide capacitance from 1 picofarad through 6.8 microfarads in 50, 100, and 200 volt ratings. For pricing refer to price sheet No. 318.

TEMPERATURE CHARACTERISTICS

Specified electrical limits and typical performance curves for the three principal temperature characteristics are illustrated, shown below. Electrical stability with respect to temperature and voltage is ranked inversely to the packaging efficiency (capacitance \times voltage in a given case size). X7R capacitors are made from materials which are ferroelectric, principally barium titanate. This material changes crystalline form at its Curie point of approximately 120°C. The change in structure causes a radical change in the inherent dielectric constant, directly affecting the exhibited capacitance. Other materials in the ceramic formulations modify this effect to different degrees in producing the X7R and Z5U characteristics.

AGING

The change in dielectric constant above the Curie point is reversible but the reversion does not occur instantaneously. In the phenomenon called aging, capacitance declines progressively with time along a typical curve such as that illustrated for BX or X7R capacitors shown below. The slope of this curve amounts to a loss of approximately 1.5% in capacitance for every decade of hours at 25°C following the last excursion above the Curie point. The typical slope for Z5U characteristic is approximately 3% per hour decade.

Aging rates are utilized in testing Mallory capacitors prior to shipment.

VOLTAGE EFFECTS

Ferroelectric materials are also affected by applied voltage, both alternating and direct. Low values of voltage produce a slight increase in capacitance and dissipation factor. Higher voltages cause a decrease in capacitance which may become quite large. Typically, capacitors with BX or X7R characteristic decrease in capacitance by approximately 10% when rated DC voltage is applied. Other formulations with very high dielectric constants may exhibit a capacitance decrease of 50%.

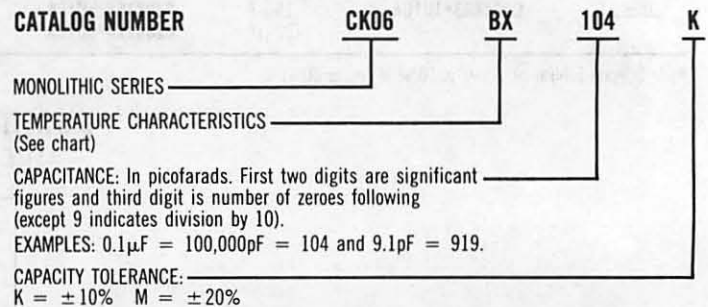
The partial polarization of the ferroelectric formulations by DC voltage persists for sometime after the voltage is removed. This residual effect can be removed by "de-aging," or raising the capacitors above the Curie point for a period of time. Two hours at 150°C is a satisfactory treatment. Upon returning to room temperature, the capacitors will once more age according to the previous discussion.

CUSTOMER TESTING

Because of the temperature and voltage effects, caution must be used in establishing a testing sequence. Dielectric strength and insulation resistance tests both apply high DC voltage and depress capacitance, so capacitance should be measured prior to these tests. Alternatively, the de-aging described above may be performed, followed by a stabilizing storage at room temperature, ambient conditions for about 24 hours.

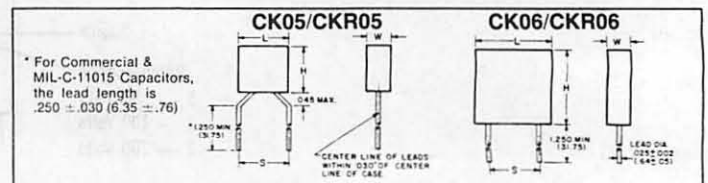
SPECIFIED ELECTRICAL LIMITS	
PARAMETER	TEMPERATURE CHARACTERISTIC
	X7R OR BX/BR
Dissipation Factor: Measured at 1 KHz and 1 vrms if capacitance > 100pF. (> 1000 pF per MIL-C-20), measured at 1 MHz if capacitance \leq 100pF.	2.5%
Dielectric Strength: At 2.5 times rated DC voltage.	Pass Subsequent IR Test
Insulation Resistance (IR): At rated DC voltage, whichever of the two is smaller.	1,000 M Ω - μ F or 100 G Ω
Temperature Characteristic: Range, °C. Capacitance Change: Without DC voltage At rated DC voltage	- 55 to 125 \pm 15% + 15%, - 25%

MONOLITHIC CERAMIC CAPACITORS MOLDED RADIAL AND AXIAL CERAMIC CAPACITOR ORDERING INFORMATION



TEMPERATURE CHARACTERISTIC					
Mallory Designator	Military Equivalent	EIA Equivalent	Temp. Range, °C	Capacitance Change With Temp.	
				Measured Without DC Bias Voltage	Measured With Bias (Rated Voltage)
X (Stable)	BX	X7R	- 55 to + 125	\pm 15%	+ 15% - 25%
R (Stable)	BR	X7R	- 55 to + 125	\pm 15%	+ 15% - 40%

MOLDED CASES WITH RADIAL LEADS STABLE TEMPERATURE CHARACTERISTIC EIA, X7R, MILITARY BX AND BR CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & MILLIMETERS)

MILITARY EQUIVALENT STYLES	H HEIGHT	L LENGTH	W WIDTH	S LEAD SPACING
CK05,CKR05	.190 \pm .010 (4.83 \pm .25)	.190 \pm .010 (4.83 \pm .25)	.090 \pm .010 (2.29 \pm .25)	.200 \pm .015 (5.08 \pm .38)
CK06,CKR06	.290 \pm .010 (7.37 \pm .25)	.290 \pm .010 (7.37 \pm .25)	.090 \pm .010 (2.29 \pm .25)	.200 \pm .015 (5.08 \pm .38)

Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

STABLE TEMPERATURE CHARACTERISTIC: EIA X7R; MILITARY BX & BR RATINGS & PART NUMBER REFERENCE

Cap. (pF)	Tol. %	MIL-C-11015/18 (Standard)	MIL-C-39014/01, for Failure Rate Levels (2)			
			M	P	R (Standard)	S

Cap. (pF)	Tol. %	MIL-C-11015/18 (Standard)	MIL-C-39014/01, for Failure Rate Levels (2)			
			M	P	R (Standard)	S

MILITARY — CK05, CKR05

200 WVDC

10	10	CK05BX100K	1201	1241	1281	1321
10	20	●CK05BX100M	1202	1242	1282	1322
12	10	CK05BX120K	1203	1243	1283	1323
15	10	CK05BX150K	1204	1244	1284	1324
15	20	●CK05BX150M	1205	1245	1285	1325
18	10	CK05BX180K	1206	1246	1286	1326
22	10	CK05BX220K	1207	1247	1287	1327
22	20	●CK05BX220M	1208	1248	1288	1328
27	10	CK05BX270K	1209	1249	1289	1329
33	10	CK05BX330K	1210	1250	1290	1330
33	20	●CK05BX330M	1211	1251	1291	1331
39	10	CK05BX390K	1212	1252	1292	1332
47	10	CK05BX470K	1213	1253	1293	1333
47	20	●CK05BX470M	1214	1254	1294	1334
56	10	CK05BX560K	1215	1255	1295	1335
68	10	CK05BX680K	1216	1256	1296	1336
68	20	●CK05BX680M	1217	1257	1297	1337
82	10	CK05BX820K	1218	1258	1298	1338
100	10	CK05BX101K	1219	1259	1299	1339
100	20	●CK05BX101M	1220	1260	1300	1340
120	10	CK05BX121K	1221	1261	1301	1341
150	10	CK05BX151K	1222	1262	1302	1342
150	20	●CK05BX151M	1223	1263	1303	1343
180	10	CK05BX181K	1224	1264	1304	1344
220	10	CK05BX221K	1225	1265	1305	1345
220	20	●CK05BX221M	1226	1266	1306	1346
270	10	CK05BX271K	1227	1267	1307	1347
330	10	CK05BX331M	1228	1268	1308	1348
330	20	●CK05BX331M	1229	1269	1309	1349
390	10	CK05BX391K	1230	1270	1310	1350
470	10	CK05BX471K	1231	1271	1311	1351
470	20	●CK05BX471M	1232	1272	1312	1352
560	10	CK05BX561K	1233	1273	1313	1353
680	10	CK05BX681K	1234	1274	1314	1354
680	20	●CK05BX681M	1235	1275	1315	1355
820	10	CK05BX821K	1236	1276	1316	1356
1,000	10	CK05BX102K	1237	1277	1317	1357
1,000	20	●CK05BX102M	1238	1278	1318	1358

100 WVDC

1,200	10	CK05BX122K	1239	1279	1319	1359
1,500	10	CK05BX152K	1240	1280	1320	1360
1,500	20	●CK05BX152M	1441	1481	1521	1561
1,800	10	CK05BX182K	1442	1482	1522	1562
2,200	10	CK05BX222K	1443	1483	1523	1563
2,200	20	●CK05BX222M	1444	1484	1524	1564
2,700	10	CK05BX272K	1445	1485	1525	1565
3,300	10	CK05BX332K	1446	1486	1526	1566
3,300	20	●CK05BX332M	1447	1487	1527	1567
3,900	10	CK05BX392K	1448	1488	1528	1568
4,700	10	CK05BX472K	1449	1489	1529	1569
4,700	20	●CK05BX472M	1450	1490	1530	1570
5,600	10	CK05BX562K	1451	1491	1531	1571
6,800	10	CK05BX682K	1452	1492	1532	1572
6,800	20	●CK05BX682M	1453	1493	1533	1573
8,200	10	CK05BX822K	1454	1494	1534	1574
10,000	10	CK05BX103K	1455	1495	1535	1575
10,000	20	●CK05BX103M	1456	1496	1536	1576

50 WVDC

12,000	10	CK05BX123K	1457	1497	1537	1577
15,000	10	CK05BX153K	1458	1498	1538	1578
15,000	20	●CK05BX153M	1459	1499	1539	1579
18,000	10	CK05BX183K	1460	1500	1540	1580
22,000	10	CK05BX223K	1461	1501	1541	1581
22,000	20	●CK05BX223M	1462	1502	1542	1582
27,000	10	CK05BX273K	1463	1503	1543	1583
33,000	10	CK05BX333K	1464	1504	1544	1584
33,000	20	●CK05BX333M	1465	1505	1545	1585
39,000	10	CK05BX393K	1466	1506	1546	1586

MILITARY — CK05, CKR05 (Continued)

50 WVDC (Continued)

47,000	10	CK05BX473K	1467	1507	1547	1587
47,000	20	●CK05BX473M	1468	1508	1548	1588
56,000	10	CK05BX563K	1469	1509	1549	1589
68,000	10	CK05BX683K	1470	1510	1550	1590
68,000	20	●CK05BX683M	1471	1511	1551	1591
82,000	10	CK05BX823K	1472	1512	1552	1592
100,000	10	CK05BX104K	1473	1513	1553	1593
100,000	20	●CK05BX104M	1474	1514	1554	1594

MIL-C-39014/02

MILITARY — CK06, CKR06

200 WVDC

1,200	10	CK06BX122K	1201	1241	1281	1321
1,500	10	CK06BX152K	1202	1242	1282	1322
1,500	20	●CK06BX152M	1203	1243	1283	1323
1,800	10	CK06BX182K	1204	1244	1284	1324
2,200	10	CK06BX222K	1206	1246	1286	1326
2,200	20	●CK06BX222M	1207	1247	1287	1327
2,700	10	CK06BX272K	1208	1248	1288	1328
3,300	10	CK06BX332K	1209	1249	1289	1329
3,300	20	●CK06BX332M	1210	1250	1290	1330
3,900	10	CK06BX392K	1211	1251	1291	1331
4,700	10	CK06BX472K	1212	1252	1292	1332
4,700	20	●CK06BX472M	1213	1253	1293	1333
5,600	10	CK06BX562K	1214	1254	1294	1334
6,800	10	CK06BX682K	1215	1255	1295	1335
6,800	20	●CK06BX682M	1216	1256	1296	1336
8,200	10	CK06BX822K	1217	1257	1297	1337
10,000	10	CK06BX103K	1218	1258	1298	1338
10,000	20	●CK06BX103M	1219	1259	1299	1339

100 WVDC

12,000	10	CK06BX123K	1231	1271	1311	1351
15,000	10	CK06BX153K	1220	1260	1300	1340
15,000	20	—	—	—	—	—
18,000	10	CK06BX183K	1221	1261	1301	1341
22,000	10	CK06BX223K	1222	1262	1302	1342
22,000	20	—	—	—	—	—
27,000	10	CK06BX273K	1232	1272	1312	1352
33,000	10	CK06BX333K	1223	1263	1303	1343
33,000	20	—	—	—	—	—
39,000	10	CK06BX393K	1224	1264	1304	1344
47,000	10	CK06BX473K	1225	1265	1305	1345
47,000	20	—	—	—	—	—
56,000	10	CK06BX563K	1226	1266	1306	1346
68,000	10	CK06BX683K	1227	1267	1307	1347
68,000	20	—	—	—	—	—
82,000	10	CK06BX823K	1229	1269	1309	1349
100,000	10	CK06BX104K	1230	1270	1310	1350
100,000	20	—	—	—	—	—

50 WVDC

120,000	10	CK06BX124K	1233	1273	1313	1353
150,000	10	CK06BX154K	1234	1274	1314	1354
150,000	20	—	—	—	—	—
180,000	10	CK06BX184K	1235	1275	1315	1355
220,000	10	CK06BX224K	1236	1276	1316	1356
220,000	20	—	—	—	—	—
270,000	10	CK06BX274K	1237	1277	1317	1357
330,000	10	CK06BX334K	1238	1278	1318	1358
330,000	20	—	—	—	—	—
390,000	10	CK06BX394K	1239	1279	1319	1359
470,000	10	CK06BX474K	1240	1280	1320	1360
470,000	20	—	—	—	—	—
560,000	10	CK06BX564K	1404	1408	1412	1416
680,000	10	CK06BX684K	1405	1409	1413	1417
680,000	20	—	—	—	—	—
820,000	10	CK06BX824K	1406	1410	1414	1418
1,000,000	10	CK06BX105K	1407	1411	1415	1419
1,000,000	20	—	—	—	—	—

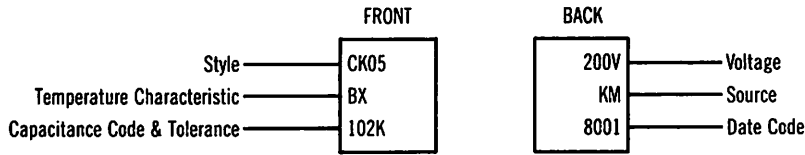
●NEW PRODUCT

Consult your local Mallory distributor for price information.

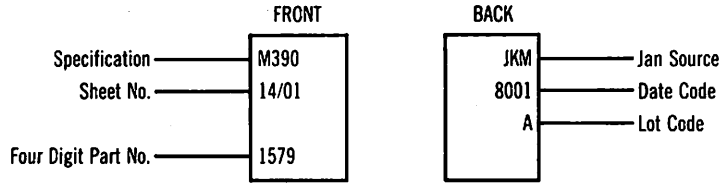
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Specifications subject to change without notice.

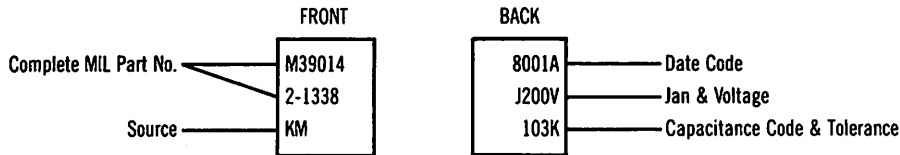
MONOLITHIC CERAMIC CAPACITORS RADIAL CAPACITOR MARKINGS CK05 PER MIL-C-11015/18 & CK06 PER MIL-C-11015/19



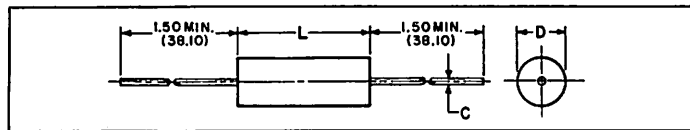
(CKR05) PER MIL-C-39014/01



(CKR06) PER MIL-C-39014/02



MOLDED CASES WITH AXIAL LEADS STABLE TEMPERATURE CHARACTERISTIC: EIA X7R, MILITARY BX AND BR CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

L	D	C	Military Styles	
			MIL-C-11015	MIL-C-39014
.160 ± .010 (4.06 ± .25)	.090 ± .010 (2.29 ± .25)	.019 ± .002 (.48 ± .05)	CK12	CKR11
.250 ± .010 (6.35 ± .25)	.090 ± .010 (2.29 ± .25)	.019 ± .002 (.48 ± .05)	CK13	CKR12
.390 ± .010 (9.91 ± .25)	.140 ± .010 (3.56 ± .25)	.025 ± .002 (.64 ± .05)	CK14	CKR14
.500 ± .020 (12.70 ± .51)	.250 ± .015 (6.35 ± .38)	.025 ± .002 (.64 ± .05)	CK15	CKR15
.690 ± .030 (17.53 ± .76)	.350 ± .020 (8.89 ± .51)	.025 ± .002 (.64 ± .05)	CK16	CKR16

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

RATINGS & PART NUMBER REFERENCE

Cap. (pF)	Tol. %	MIL-C-11015/19 (Standard)	MIL-C-39014/05, for Failure Rate Levels (2)			
			M	P	R	S

Cap. (pF)	Tol. %	MIL-C-11015/19 (Standard)	MIL-C-39014/05, for Failure Rate Levels (2)			
			M	P	R	S

MILITARY — CK12 OR CKR11

100 WVDC						
10	10	CK12BX100K	2601	2801	2001	2201
10	20	●CK12BX100M	2602	2802	2002	2202
12	10	CK12BX120K	2603	2803	2003	2203
15	10	CK12BX150K	2604	2804	2004	2204
15	20	●CK12BX150M	2605	2805	2005	2205
18	10	CK12BX180K	2606	2806	2006	2206
22	10	CK12BX220K	2607	2807	2007	2207
22	20	●CK12BX220M	2608	2808	2008	2208
27	10	CK12BX270K	2609	2809	2009	2209
33	10	CK12BX330K	2610	2810	2010	2210
33	20	●CK12BX330M	2611	2811	2011	2211
39	10	CK12BX390K	2612	2812	2012	2212
47	10	CK12BX470K	2613	2813	2013	2213
47	20	●CK12BX470M	2614	2814	2014	2214
56	10	CK12BX560K	2615	2815	2015	2215
68	10	CK12BX680K	2616	2816	2016	2216
68	20	●CK12BX680M	2617	2817	2017	2217
82	10	CK12BX820K	2618	2818	2018	2218
100	10	CK12BX101K	2619	2819	2019	2219
100	20	●CK12BX101M	2620	2820	2020	2220
120	10	CK12BX121K	2621	2821	2021	2221
150	10	CK12BX151K	2622	2822	2022	2222
150	20	●CK12BX151M	2623	2823	2023	2223
180	10	CK12BX181K	2624	2824	2024	2224
220	10	CK12BX221K	2625	2825	2025	2225
220	20	●CK12BX221M	2626	2826	2026	2226
270	10	CK12BX271K	2627	2827	2027	2227
330	10	CK12BX331K	2628	2828	2028	2228
330	20	●CK12BX331M	2629	2829	2029	2229
390	10	CK12BX391K	2630	2830	2030	2230
470	10	CK12BX471K	2631	2831	2031	2231
470	20	●CK12BX471M	2632	2832	2032	2232
560	10	CK12BX561K	2633	2833	2033	2233
680	10	CK12BX681K	2634	2834	2034	2234
680	20	●CK12BX681M	2635	2835	2035	2235
820	10	CK12BX821K	2636	2836	2036	2236
1,000	10	CK12BX102K	2637	2837	2037	2237
1,000	20	●CK12BX102M	2638	2838	2038	2238
1,200	10	CK12BX122K	2639	2839	2039	2239
1,500	10	CK12BX152K	2640	2840	2040	2240
1,500	20	●CK12BX152M	2641	2841	2041	2241
1,800	10	CK12BX182K	2642	2842	2042	2242
2,200	10	CK12BX222K	2643	2843	2043	2243
2,200	20	●CK12BX222M	2644	2844	2044	2244
2,700	10	CK12BX272K	2645	2845	2045	2245
3,300	10	CK12BX332K	2646	2846	2046	2246
3,300	20	●CK12BX332M	2647	2847	2047	2247
3,900	10	CK12BX392K	2648	2848	2048	2248
4,700	10	CK12BX472K	2649	2849	2049	2249
4,700	20	●CK12BX472M	2650	2850	2050	2250

50 WVDC

5,600	10	CK12BX562K	2651	2851	2051	2251
6,800	10	CK12BX682K	2652	2852	2052	2252
6,800	20	●CK12BX682M	2653	2853	2053	2253
8,200	10	CK12BX822K	2654	2854	2054	2254
10,000	10	CK12BX103K	2655	2855	2055	2255
10,000	20	●CK12BX103M	2656	2856	2056	2256

MILITARY CK13 OR CKR12

100 WVDC						
5,600	10	CK13BX562K	2657	2857	2057	2257
6,800	10	CK13BX682K	2658	2858	2058	2258
6,800	20	●CK13BX682M	2659	2859	2059	2259
8,200	10	CK13BX822K	2660	2860	2060	2260
10,000	10	CK13BX103K	2661	2861	2061	2261
10,000	20	●CK13BX103M	2662	2862	2062	2262

MILITARY — CK13 or CKR12 (Continued)

50 WVDC						
12,000	10	CK13BX123K	2663	2863	2063	2263
15,000	10	CK13BX153K	2664	2864	2064	2264
15,000	20	●CK13BX153M	2665	2865	2065	2265
18,000	10	CK13BX183K	2666	2866	2066	2266
22,000	10	CK13BX223K	2667	2867	2067	2267
22,000	20	●CK13BX223M	2668	2868	2068	2268
27,000	10	CK13BR273K	2669	2869	2069	2269
33,000	10	CK13BR333K	2670	2870	2070	2270
33,000	20	●CK13BR333M	2671	2871	2071	2271
39,000	10	CK13BR393K	2672	2872	2072	2272
47,000	10	CK13BR473K	2673	2873	2073	2273
47,000	20	●CK13BR473M	2674	2874	2074	2274

MILITARY — CK14 OR CKR14

100 WVDC						
12,000	10	CK14BX123K	2675	2875	2075	2275
15,000	10	CK14BX153K	2676	2876	2076	2276
15,000	20	●CK14BX153M	2677	2877	2077	2277
18,000	10	CK14BX183K	2678	2878	2078	2278
22,000	10	CK14BX223K	2679	2879	2079	2279
22,000	20	●CK14BX223M	2680	2880	2080	2280
27,000	10	CK14BX273K	2681	2881	2081	2281
33,000	10	CK14BX333K	2682	2882	2082	2282
33,000	20	●CK14BX333M	2683	2883	2083	2283
39,000	10	CK14BX393K	2684	2884	2084	2284
47,000	10	CK14BX473K	2685	2885	2085	2285
47,000	20	●CK14BX473M	2686	2886	2086	2286

50 WVDC

56,000	10	—	2687	2887	2087	2287
68,000	10	—	2688	2888	2088	2288
68,000	20	—	2689	2889	2089	2289
82,000	10	—	2690	2890	2090	2290
100,000	10	—	2691	2891	2091	2291
100,000	20	—	2692	2892	2092	2292

100 WVDC

56,000	10	CK14BR563K	2693	2893	2093	2293
68,000	10	CK14BR683K	2694	2894	2094	2294
68,000	20	●CK14BR683M	2695	2895	2095	2295
82,000	10	CK14BR823K	2696	2896	2096	2296
100,000	10	CK14BR104K	2697	2897	2097	2297
100,000	20	●CK14BR104M	2698	2898	2098	2298

50 WVDC

120,000	10	CK14BR124K	2699	2899	2099	2299
150,000	10	CK14BR154K	2700	2900	2100	2300
150,000	20	CK14BR154M	2701	2901	2101	2301
180,000	10	CK14BR184K	2702	2902	2102	2302
220,000	10	CK14BR224K	2703	2903	2103	2303
220,000	20	CK14BR224M	2704	2904	2104	2304
270,000	10	CK14BR274K	2705	2905	2105	2305

MILITARY — CK15 OR CKR15

100 WVDC						
56,000	10	—	2706	2906	2106	2306
68,000	10	—	2707	2907	2107	2307
68,000	20	—	2708	2908	2108	2308
82,000	10	—	2709	2909	2109	2309
100,000	10	CK15BX104K	2710	2910	2110	2310
100,000	20	●CK15BX104M	2711	2911	2111	2311
120,000	10	CK15BR124K	2712	2912	2112	2312
150,000	10	CK15BR154K	2713	2913	2113	2313
150,000	20	●CK15BR154M	2714	2914	2114	2314
180,000	10	CK15BR184K	2715	2915	2115	2315
220,000	10	CK15BR224K	2716	2916	2116	2316

M — 1%/khr, P — 0.1%/khr, R — 0.01%/khr, S — 0.001%/khr.

●NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →
Specifications subject to change without notice.

RATINGS & PART NUMBER REFERENCE

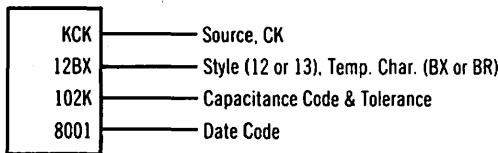
Cap. (pF)	Tol. %	MIL-C-11015/20 (Standard)	●MIL-C-39014/05, for Failure Rate Levels (2)			
			M	P	R	S
MILITARY — CK15 OR CKR15 (Continued)						
100 WVDC (Continued)						
220,000	20	●CK15BR224M	2717	2917	2117	2317
270,000	10	CK15BR274K	2718	2918	2118	2318
330,000	10	CK15BR334K	2719	2919	2119	2319
330,000	20	●CK15BR334M	2720	2920	2120	2320
50 WVDC						
470,000	10	CK15BR474K	2721	2921	2121	2321
470,000	20	●CK15BR474M	2722	2922	2122	2322
680,000	10	—	2723	2923	2123	2323
680,000	20	—	2724	2924	2124	2324
1,000,000	10	CK15BR105K	2725	2925	2125	2325
1,000,000	20	●CK15BR105M	2726	2926	2126	2326

Cap. (pF)	Tol. %	MIL-C-11015/20 (Standard)	●MIL-C-39014/05, for Failure Rate Levels (2)			
			M	P	R	S
CK16 OR CKR16						
100 WVDC						
470,000	10	CK16BR474K	2727	2927	2127	2327
470,000	20	●CK16BR474M	2728	2928	2128	2328
680,000	10	—	2729	2929	2129	2329
680,000	20	—	2730	2930	2130	2330
1,000,000	10	CK16BR105K	2731	2931	2131	2331
1,000,000	20	●CK16BR105M	2732	2932	2132	2332
50 WVDC						
2,200,000	10	CK16BR225K	2733	2933	2133	2333
2,200,000	20	●CK16BR225M	2734	2934	2134	2334
3,300,000	10	CK16BR335K	2735	2935	2135	2335
3,300,000	20	●CK16BR335M	2736	2936	2136	2336

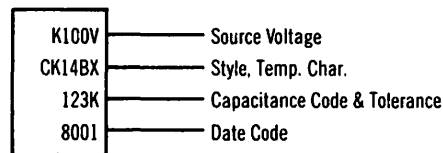
M — 1%/khr, P — 0.1%/khr, R — 0.01%/khr, S — 0.001%/khr.

AXIAL CAPACITOR MARKINGS STANDARD AND MIL-C-11015

(CK12) (CK13)

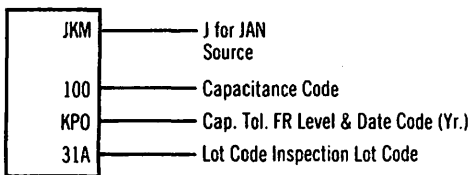


(CK14) (CK15) (CK16)

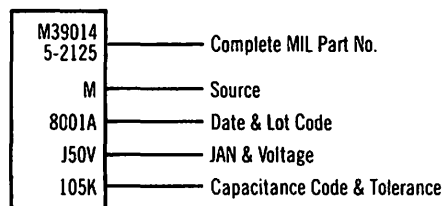


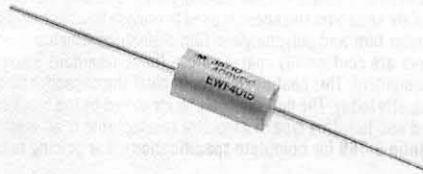
ESTABLISHED RELIABILITY (MIL-C-39014)

(CKR11) (CKR12)



(CKR14) (CKR15) (CKR16)





EWF CAPACITORS POLYESTER WRAP EPOXY END FILLED

Mallory type EWF capacitors have high insulation resistance, good moisture resistance, excellent electrical parameters, low dissipation factor, miniature case sizes and economical prices.

The physical and electrical characteristics of the EWF make it an ideal capacitor for coupling and by-pass applications in color or black and white TV, radio, hi-fi and instrumentation. Its tubular configuration adapts to printed circuit wiring or point to point soldering for normal by-pass coupling.

Type EWF capacitors are made from the finest polyester film available. The outer case is polyester wrapped and end sealed in epoxy resin. The axial centered leads are copper wire with double tinning. **Tolerance: ± 10%.** EWF capacitors are available from Mallory distributors in quantities from one to full production levels. Operating Temp.: -55°C to +85°C (to +125°C with proper voltage derating). For detailed information see Mallory Bulletin EWF form 9-645. For pricing refer to price sheet No. 332. Replaces WMF, B1500.

Cap. mfd	Size, In. Dia. x Lg.	Catalog No.
100 WVDC		
.0010	.156 x .500	EWFA1A210
.0012	.156 x .500	EWFA1A212
.0015	.156 x .500	EWFA1A215
.0018	.156 x .500	EWFA1A218
.0022	.156 x .500	EWFA1A222
.0027	.156 x .500	EWFA1A227
.0033	.156 x .500	EWFA1A233
.0039	.156 x .500	EWFA1A239
.0047	.156 x .500	EWFA1A247
.0050	.156 x .500	EWFA1A250
.0056	.156 x .500	EWFA1A256
.0068	.175 x .500	EWFA1A268
.0082	.175 x .500	EWFA1A282
.010	.200 x .500	EWFA1A110
.012	.215 x .500	EWFA1A112
.015	.235 x .500	EWFA1A115
.018	.255 x .500	EWFA1A118
.022	.275 x .625	EWFA1A122
.027	.300 x .625	EWFA1A127
.033	.300 x .625	EWFA1A133
.039	.245 x .750	EWFA1A139
.047	.265 x .750	EWFA1A147
.050	.270 x .750	EWFA1A150
.056	.270 x .750	EWFA1A156
.068	.280 x .750	EWFA1A168
.082	.270 x .875	EWFA1A182
.10	.290 x .875	EWFA1A010
.12	.315 x .875	EWFA1A012
.15	.335 x .875	EWFA1A015
.18	.350 x 1.000	EWFA1A018
.22	.385 x 1.000	EWFA1A022
.27	.380 x 1.125	EWFA1A027
.33	.415 x 1.125	EWFA1A033
.39	.460 x 1.125	EWFA1A039
.47	.475 x 1.250	EWFA1A047
.50	.495 x 1.250	EWFA1A050

Cap. mfd	Size, In. Dia. x Lg.	Catalog No.
100 WVDC		
.56	.520 x 1.250	EWFA1A056
.68	.570 x 1.250	EWFA1A068
.82	.585 x 1.375	EWFA1A082
1.0	.625 x 1.500	EWFA1A10
1.5	.770 x 1.750	EWFA1A15
2.0	.955 x 1.750	EWFA1A20
4.0	1.250 x 2.500	EWFA1A40
200 WVDC		
.0010	.156 x .500	EWFA2210
.0015	.156 x .500	EWFA2215
.0022	.156 x .500	EWFA2222
.0033	.160 x .500	EWFA2233
.0047	.170 x .500	EWFA2247
.0068	.200 x .500	EWFA2268
.010	.230 x .500	EWFA2110
.015	.290 x .500	EWFA2115
.022	.275 x .625	EWFA2122
.033	.270 x .750	EWFA2133
.047	.320 x .750	EWFA2147
.068	.350 x .750	EWFA2168
.10	.410 x .875	EWFA2010
.15	.500 x .875	EWFA2015
.22	.500 x 1.125	EWFA2022
.33	.550 x 1.125	EWFA2033
.47	.600 x 1.250	EWFA2047
.68	.650 x 1.625	EWFA2068
1.0	.750 x 1.750	EWFA210
2.0	.980 x 1.875	EWFA220
400 WVDC		
.0010	.156 x .625	EWFA4210
.0022	.156 x .625	EWFA4222
.0033	.190 x .625	EWFA4233
.0047	.200 x .625	EWFA4247
.0068	.250 x .625	EWFA4268
.010	.300 x .625	EWFA4110

Cap. mfd	Size, In. Dia. x Lg.	Catalog No.
400 WVDC (Continued)		
.015	.300 x .625	EWFA4115
.022	.320 x .750	EWFA4122
.033	.350 x .875	EWFA4133
.047	.400 x .875	EWFA4147
.068	.390 x 1.000	EWFA4168
.10	.465 x 1.000	EWFA4010
.15	.515 x 1.250	EWFA4015
.22	.565 x 1.375	EWFA4022
.33	.600 x 1.625	EWFA4033
.47	.700 x 1.625	EWFA4047
.68	.790 x 1.750	EWFA4068
1.0	.875 x 2.000	EWFA410
1.25	.950 x 2.000	EWFA4125
2.0	1.250 x 2.250	EWFA420
600 WVDC		
.0010	.170 x .750	EWFA6210
.0015	.170 x .750	EWFA6215
.0022	.187 x .750	EWFA6222
.0033	.203 x .750	EWFA6233
.0047	.234 x .750	EWFA6247
.0068	.265 x .750	EWFA6268
.010	.290 x .750	EWFA6110
.015	.312 x .875	EWFA6115
.022	.335 x .875	EWFA6122
.033	.350 x 1.000	EWFA6133
.047	.415 x 1.000	EWFA6147
.068	.500 x 1.000	EWFA6168
.10	.520 x 1.375	EWFA6010
.15	.625 x 1.375	EWFA6015
.22	.660 x 1.625	EWFA6022
.33	.687 x 2.000	EWFA6033
.47	.855 x 2.000	EWFA6047
.68	.970 x 2.000	EWFA6068
1.0	1.165 x 2.500	EWFA610
2.0	1.460 x 3.000	EWFA620

Door Knob High Voltage Ceramic Capacitor Type M500P

The M500P30KV, high voltage ceramic capacitor, is designed to meet the most stringent current and environmental conditions. Supplied with 2 terminals, capacitor has female threads for interchangeable screw-in terminals. For pricing, contact factory. Replaces 30DK__, DHS.

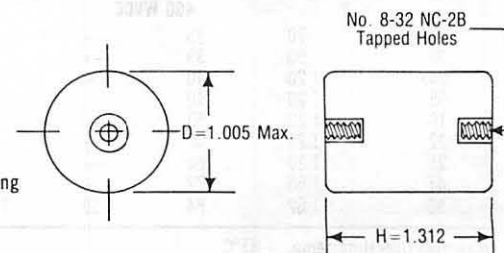
HIGHLIGHTS

- Temperature Range - -55°C to +85°C
- Temperature Characteristic - Z5U
- Dissipation Factor - 1.5% (max.)
- Capacity Tolerance - -20% to +80%

APPLICATIONS

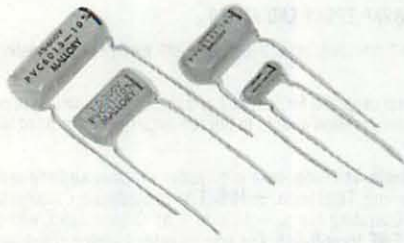
CRT power supplies, electrostatic copying machines, electronic microscopes and synchroscope, HVDC power supplies, lightning arrester voltage distribution systems and arc suppression.

Cap. (pF)	WVDC	Catalog Number
500	30KV	M500P30KV



Consult your local Mallory distributor for price information.

Type PVC Epoxy Coated Film Capacitors



Mallory Type PVC capacitors are made from the finest materials available to assure excellent performance and long life. Only the highest grade aluminum is used for the plate material and ample plate separator thickness is used to provide trouble free service within the specifications shown. We utilize combinations of polyester film and polypropylene film dielectrics which are wound under carefully controlled atmospheric conditions, these capacitors are conformally coated with a flame retardant epoxy that protects the capacitor from heat of soldering irons or flow solder equipment. This coating also can protect the capacitor from the chlorinated cleaning solvents that are so commonly used in the industry today. The outer foil can be identified by the black stripe on the body of the capacitor. The wire leads are crimped in swaged end foil. This type of capacitor is adaptable to all electronic circuit applications calling for bypass and coupling. Request bulletin 9-769 for complete specifications. For pricing refer to price sheet No. 330.

HIGHLIGHTS

Capacitance Range - .001 to 2 μ F
 Voltage - 100 - 2,000 VDC
 Insulation Resistance - 10,000 megohm- μ F or 100,000 megohms
 Temperature Range - -55°C to +125°C
 -55°C to +105°C; (1,600-2,000 VDC)

CASE DIMENSIONS (Inches)

Cap. (MFD)	Length "L"	Diameter "D" or Height "H"	"T"	Lead Spacing "S"	Catalog Number
100 WVDC					
.018	.70	.33	—	.500	PVC1118
.022	.70	.35	—	.500	PVC1122
.033	.70	.35	—	.500	PVC1133
.04	.70	.35	—	.500	PVC114
.047	.70	.35	—	.500	PVC1147
.056	.70	.38	—	.500	PVC1156
.068	.70	.38	—	.500	PVC1168
.10	.90	.40	—	.688	PVC101
.15	.90	.45	—	.688	PVC1015
.22	1.20	.45	—	.969	PVC1022
.25	1.20	.47	—	.969	PVC1025
.33	1.20	.50	—	.969	PVC1033
.47	1.60	.50	—	1.344	PVC1047
.50	1.60	.60	—	1.344	PVC105
.68	1.60	.60	—	1.344	PVC1068
1.0	1.60	.70	—	1.344	*PVC11
1.5	1.24	.68	.46	.962	*PVC11P5
2.0	1.24	.77	.55	.962	PVC12
200 WVDC					
.01	.70	.33	—	.500	PVC211
.015	.70	.33	—	.500	PVC2115
.02	.70	.33	—	.500	PVC212
.022	.70	.33	—	.500	PVC2122
.033	.90	.38	—	.688	PVC2133
.04	.90	.38	—	.688	PVC214
.047	.90	.38	—	.688	PVC2147
.05	1.20	.38	—	.969	PVC215
.068	1.20	.38	—	.969	PVC2168
.10	1.20	.40	—	.969	PVC201
.15	1.20	.45	—	.969	PVC2015
.22	1.20	.50	—	.969	PVC2022
.25	1.20	.50	—	.969	PVC2025
.33	1.60	.48	—	1.344	PVC2033
.47	1.60	.56	—	1.344	PVC2047
.50	1.60	.56	—	1.344	PVC205
1.0	1.24	.81	.56	.962	*PVC21
2.0	1.24	.94	.69	.962	*PVC22
400 WVDC					
.01	.70	.35	—	.500	PVC411
.02	.90	.39	—	.688	PVC412
.047	1.20	.40	—	.969	PVC4147
.05	1.20	.40	—	.969	PVC415
.10	1.20	.53	—	.969	PVC401
.22	1.20	.60	—	.969	PVC4022
.25	1.20	.60	—	.969	PVC4025
.47	1.60	.72	—	1.344	PVC4047
.50	1.62	.84	.59	1.342	*PVC405

CASE DIMENSIONS (Inches)

Cap. (MFD)	Length "L"	Diameter "D" or Height "H"	"T"	Lead Spacing "S"	Catalog Number
600 WVDC					
.001	.70	.31	—	.500	PVC621
.0012	.70	.34	—	.500	PVC6212
.0015	.70	.34	—	.500	PVC6215
.002	.70	.34	—	.500	PVC622
.0022	.70	.34	—	.500	PVC6222
.0025	.70	.34	—	.500	PVC6225
.0027	.70	.35	—	.500	PVC6227
.003	.70	.35	—	.500	PVC623
.0033	.70	.35	—	.500	PVC6233
.0039	.70	.39	—	.500	PVC6239
.004	.70	.39	—	.500	PVC624
.0047	.70	.39	—	.500	PVC6247
.005	.70	.39	—	.500	PVC625
.0056	.70	.40	—	.500	PVC6256
.006	.70	.40	—	.500	PVC626
.0068	.70	.40	—	.500	PVC6268
.0075	.70	.40	—	.500	PVC6275
.008	.90	.40	—	.688	PVC628
.0082	.90	.40	—	.688	PVC6282
.01	.90	.40	—	.688	PVC611
.012	.90	.40	—	.688	PVC6112
.015	.90	.40	—	.688	PVC6115
.02	.90	.45	—	.688	PVC612
.022	.90	.45	—	.688	PVC6122
.025	.90	.45	—	.688	PVC6125
.027	1.20	.45	—	.969	PVC6127
.03	1.20	.45	—	.969	PVC613
.033	1.20	.45	—	.969	PVC6133
.039	1.20	.56	—	.969	PVC6139
.04	1.20	.56	—	.969	PVC614
.047	1.20	.56	—	.969	PVC6147
.05	1.20	.56	—	.969	PVC615
.056	1.20	.60	—	.969	PVC6156
.068	1.20	.60	—	.969	PVC6168
.082	1.20	.65	—	.969	PVC6182
.10	1.20	.65	—	.969	PVC601
.15	1.60	.70	—	1.344	PVC6015
.20	1.60	.81	—	1.344	PVC602
.22	1.60	.81	—	1.344	PVC6022
.25	1.81	.82	—	1.344	PVC6025
.33	1.81	.89	—	1.344	PVC6033
.47	1.81	.89	—	1.344	PVC6047
.50	1.62	.81	.59	1.342	*PVC605
1.0	1.62	1.01	.80	1.342	*PVC61
1000 WVDC					
.10	1.60	.85	—	1.344	PVC101
.15	1.62	.70	.48	1.342	*PVC1015

*Maximum Operating Temp. + 85°C.

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

CASE DIMENSIONS (Inches)					
Cap. (MFD)	Length "L"	Diameter "D" or Height "H"	"T"	Lead Spacing "S"	Catalog Number
1600 WVDC					
.001	1.31	.50	—	.969	PVC1621
.0015	1.31	.50	—	.969	PVC16215
.0022	1.31	.50	—	.969	PVC16222
.0027	1.31	.50	—	.969	PVC16227
.003	1.31	.50	—	.969	PVC1623
.0033	1.31	.50	—	.969	PVC16233
.004	1.31	.50	—	.969	PVC1624
.0047	1.31	.50	—	.969	PVC16247
.005	1.31	.50	—	.969	PVC1625
.006	1.31	.56	—	.969	PVC1626
.0068	1.31	.56	—	.969	PVC16268
.007	1.31	.56	—	.969	PVC1627
.0075	1.31	.56	—	.969	PVC16275
.008	1.31	.60	—	.969	PVC1628
.0082	1.31	.60	—	.969	PVC16282

CASE DIMENSIONS (Inches)					
Cap. (MFD)	Length "L"	Diameter "D" or Height "H"	"T"	Lead Spacing "S"	Catalog Number
1600 WVDC (Continued)					
.01	1.31	.60	—	.969	PVC1611
.015	1.31	.65	—	.969	PVC16115
.02	1.70	.65	—	1.344	PVC1612
.022	1.70	.65	—	1.344	PVC16122
.033	1.70	.75	—	1.344	PVC16133
.047	1.70	.85	—	1.344	PVC16147
.05	1.70	.85	—	1.344	PVC1615
.068	1.62	.81	.59	1.342	*PVC16168
2000 WVDC					
.001	1.31	.50	—	.969	PVC2X21
.0056	1.31	.65	—	.969	PVC2X256
.0068	1.31	.65	—	.969	PVC2X268

*Maximum Operating Temp. +85°C.

CATALOG NUMBER



- WVDC:
- 1 = 100
 - 2 = 200
 - 4 = 400
 - 6 = 600
 - 10 = 1000
 - 16 = 1600
 - 2X = 2000

Number of zeros that precede the significant figures of the capacity. (preceded by a decimal point where applicable).

Significant figures of capacitor rating in microfarads.

EXAMPLE: PVC1118 = .018mfd/100 VDC

A-C APPLICATION GUIDE @ +85°C: (Below)

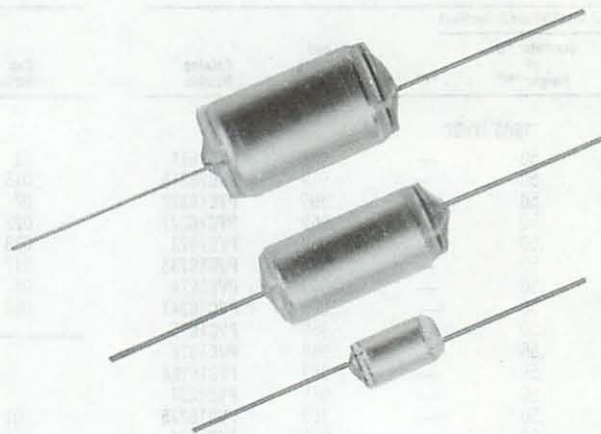
Rated Voltage D-C	Max. A-C (RMS) Volts @ 60Hz
100	70
200	100
400	220
600	220
1000	220
1600	500
2000	500

Consult your local Mallory distributor for price information.

Types SXX, SXL, SXM and SX Polystyrene Film Capacitors

MALLORY

SX types are manufactured from a unique form of stretched and fused polystyrene to provide the ultimate in temperature stability and humidity protection. Can be used to replace mica, film, paper and ceramic types in most applications. **Insulation Resistance:** SXX and SXL types greater than 100 megohms; SXM and SX types greater than 100,000 megohms. **Power Factor:** Less than .05%. **Dielectric Absorption:** Less than .02%. **Temperature Coefficient:** -150 ppm/°C, ±50 ppm/°C. **Temperature Range:** -40°C to +85°C; for best operating stability, -25°C to +70°C. **Capacity Tolerance:** SX types is ±5%; SXX, SXL and SXM types ±2.5%. **Inductance:** Between 10 and 30 nH dependent on length of capacitor body, additional inductance for the leads of about 10 nH/cm depending on the lead diameter. **Leads:** Tinned copper wire; the lead closest to the color band indicating the working voltage is connected to outer foil. **Lead Length** is 1.18" minimum. **Lead Diameter** shown below.



RATED VOLTAGE @ +40°C, 33 WVDC
RATED VOLTAGE @ +85°C, 25 WVDC
(Blue Color Band)

RATED VOLTAGE @ +40°C, 63 WVDC
RATED VOLTAGE @ +85°C, 50 WVDC
(Yellow Color Band)

RATED VOLTAGE @ +40°C, 160 WVDC
RATED VOLTAGE @ +85°C, 125 WVDC
(Red Color Band)

Cap. pF	Max. Size, In. Dia. X Lg.	Lead Diameter (inches, ±.002")	Catalog No.
100	.118 × .315	.012"	SXX310
120	.118 × .315	.012"	SXX312
150	.122 × .315	.012"	SXX315
180	.122 × .315	.012"	SXX318
220	.126 × .315	.012"	SXX322
270	.130 × .315	.012"	SXX327
330	.134 × .315	.012"	SXX333
390	.142 × .315	.012"	SXX339
470	.146 × .315	.012"	SXX347
560	.150 × .315	.012"	SXX356
680	.154 × .315	.012"	SXX368
820	.157 × .315	.012"	SXX382
1,000	.161 × .315	.012"	SXX210
1,200	.150 × .473	.016"	SXX212
1,500	.154 × .473	.016"	SXX215
1,800	.165 × .473	.016"	SXX218
2,200	.173 × .473	.016"	SXX222
2,700	.193 × .473	.016"	SXX227
3,300	.205 × .473	.016"	SXX233
3,900	.217 × .473	.016"	SXX239
4,700	.236 × .473	.016"	SXX247
5,600	.220 × .670	.020"	SXX256
6,800	.236 × .670	.020"	SXX268
8,200	.252 × .670	.020"	SXX282
10,000	.272 × .670	.020"	SXX110
12,000	.291 × .670	.020"	SXX112
15,000	.323 × .670	.020"	SXX115
18,000	.350 × .670	.020"	SXX118
22,000	.386 × .670	.020"	SXX122
25,000	.407 × .670	.020"	SXX125
27,000	.421 × .670	.020"	SXX127
33,000	.402 × .867	.020"	SXX133
39,000	.453 × .867	.020"	SXX139
47,000	.480 × .867	.020"	SXX147
56,000	.520 × .867	.020"	SXX156
68,000	.563 × .867	.020"	SXX168
82,000	.626 × .867	.020"	SXX182
100,000	.670 × .867	.020"	SXX210

Cap. pF	Max. Size, In. Dia. X Lg.	Lead Diameter (inches, ±.002")	Catalog No.
220	.130 × .315	.012"	SXL322
270	.134 × .315	.012"	SXL327
330	.138 × .315	.012"	SXL333
390	.146 × .315	.012"	SXL339
470	.154 × .315	.012"	SXL347
560	.157 × .315	.012"	SXL356
680	.169 × .315	.012"	SXL368
820	.177 × .315	.012"	SXL382
1,000	.173 × .473	.016"	SXL210
1,200	.189 × .473	.016"	SXL212
1,500	.213 × .473	.016"	SXL215
1,800	.224 × .473	.016"	SXL218
2,200	.232 × .473	.016"	SXL222
2,700	.244 × .473	.016"	SXL227
3,300	.256 × .473	.016"	SXL233
3,900	.280 × .473	.016"	SXL239
4,700	.303 × .473	.016"	SXL247
5,600	.276 × .670	.020"	SXL256
6,800	.287 × .670	.020"	SXL268
8,200	.303 × .670	.020"	SXL282
10,000	.319 × .670	.020"	SXL110
11,000	.303 × .867	.020"	SXL111
12,000	.303 × .867	.020"	SXL112
13,000	.315 × .867	.020"	SXL113
15,000	.323 × .867	.020"	SXL115
16,000	.330 × .867	.020"	SXL116
18,000	.346 × .867	.020"	SXL118
20,000	.358 × .867	.020"	SXL120
22,000	.378 × .867	.020"	SXL122
24,000	.388 × .867	.020"	SXL124
25,000	.402 × .867	.020"	SXL125

RATED VOLTAGE @ +40°C, 160 WVDC
RATED VOLTAGE @ +85°C, 125 WVDC
(Red Color Band)

Cap. pF	Max. Size, In. Dia. X Lg.	Lead Diameter (inches, ±.002")	Catalog No.
20	.173 × .315	.012"	SXM420
33	.173 × .315	.012"	SXM433
39	.181 × .315	.012"	SXM439
47	.185 × .315	.012"	SXM447
56	.177 × .315	.012"	SXM456
68	.165 × .315	.012"	SXM468
82	.146 × .315	.012"	SXM482
100	.154 × .315	.012"	SXM310
120	.161 × .315	.012"	SXM312
150	.169 × .315	.012"	SXM315
180	.173 × .315	.012"	SXM318
220	.177 × .315	.012"	SXM322

Cap. pF	Max. Size, In. Dia. X Lg.	Lead Diameter (inches, ±.002")	Catalog No.
270	.181 × .315	.012"	SXM327
300	.185 × .315	.012"	SXM330
330	.189 × .315	.012"	SXM333
360	.194 × .315	.012"	SXM336
390	.201 × .315	.012"	SXM339
430	.204 × .315	.012"	SXM343
470	.209 × .315	.012"	SXM347
500	.211 × .315	.012"	SXM350
510	.213 × .315	.012"	SXM351
560	.213 × .315	.012"	SXM356
600	.220 × .315	.012"	SXM360
620	.222 × .473	.016"	SXM362
680	.228 × .473	.016"	SXM368
750	.232 × .473	.016"	SXM375
820	.236 × .473	.016"	SXM382
910	.240 × .473	.016"	SXM391
1,000	.244 × .473	.016"	SXM210
1,100	.250 × .473	.016"	SXM211
1,200	.256 × .473	.016"	SXM212
1,300	.262 × .473	.016"	SXM213
1,500	.268 × .473	.016"	SXM215
1,600	.272 × .473	.016"	SXM216
1,800	.280 × .473	.016"	SXM218
2,000	.285 × .473	.016"	SXM220
2,200	.228 × .670	.020"	SXM222
2,400	.236 × .670	.020"	SXM224
2,700	.252 × .670	.020"	SXM227
3,000	.268 × .670	.020"	SXM230
3,300	.280 × .670	.020"	SXM233
3,600	.295 × .670	.020"	SXM236
3,900	.307 × .670	.020"	SXM239
4,300	.324 × .670	.020"	SXM243
4,700	.335 × .670	.020"	SXM247
5,000	.340 × .670	.020"	SXM250
5,100	.310 × .867	.020"	SXM251
5,600	.315 × .867	.020"	SXM256
6,200	.325 × .867	.020"	SXM262
6,800	.335 × .867	.020"	SXM268
7,500	.346 × .867	.020"	SXM275
8,200	.358 × .867	.020"	SXM282
9,100	.370 × .867	.020"	SXM291
10,000	.382 × .867	.020"	SXM110
11,000	.405 × .867	.020"	SXM111
12,000	.417 × .867	.020"	SXM112
13,000	.434 × .867	.020"	SXM113
15,000	.452 × .867	.020"	SXM115
16,000	.422 × 1.260	.020"	SXM116
18,000	.429 × 1.260	.020"	SXM118
20,000	.440 × 1.260	.020"	SXM120
22,000	.465 × 1.260	.020"	SXM122
24,000	.485 × 1.260	.020"	SXM124
25,000	.492 × 1.260	.020"	SXM125

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Polystyrene Film Capacitors Types SXK, SXL, SXM and SX

RATED VOLTAGE @ +40°C, 630 WVDC
 RATED VOLTAGE @ +85°C, 500 WVDC
 (Black Color Band)

Cap. pF	Max. Size, in Dia. X Lg.	Lead Diameter (Inches, ±.002")	Catalog No.
20	.173 × .473	.016"	SX420
22	.173 × .473	.016"	SX422
24	.173 × .473	.016"	SX424
26	.186 × .473	.016"	SX426
27	.173 × .473	.016"	SX427
30	.173 × .473	.016"	SX430
33	.173 × .473	.016"	SX433
36	.178 × .473	.016"	SX436
39	.181 × .473	.016"	SX439
43	.183 × .473	.016"	SX443
47	.185 × .473	.016"	SX447
56	.189 × .473	.016"	SX456
62	.191 × .473	.016"	SX462
68	.193 × .473	.016"	SX468
75	.195 × .473	.016"	SX475
82	.197 × .473	.016"	SX482
91	.199 × .473	.016"	SX491
100	.201 × .473	.016"	SX310
110	.203 × .473	.016"	SX311
120	.205 × .473	.016"	SX312
130	.207 × .473	.016"	SX313
150	.209 × .473	.016"	SX315
160	.211 × .473	.016"	SX316
180	.213 × .473	.016"	SX318
200	.217 × .473	.016"	SX320

Cap. pF	Max. Size, in Dia. X Lg.	Lead Diameter (Inches, ±.002")	Catalog No.
220	.220 × .473	.016"	SX322
240	.222 × .473	.016"	SX324
270	.224 × .473	.016"	SX327
300	.226 × .473	.016"	SX330
330	.228 × .473	.016"	SX333
360	.232 × .473	.016"	SX336
390	.236 × .473	.016"	SX339
430	.242 × .473	.016"	SX343
470	.248 × .473	.016"	SX347
510	.214 × .670	.020"	SX351
560	.217 × .670	.020"	SX356
620	.226 × .670	.020"	SX362
680	.232 × .670	.020"	SX368
750	.244 × .670	.020"	SX375
820	.248 × .670	.020"	SX382
910	.256 × .670	.020"	SX391
1,000	.264 × .670	.020"	SX210
1,100	.276 × .670	.020"	SX211
1,200	.283 × .670	.020"	SX212
1,300	.291 × .670	.020"	SX213
1,500	.299 × .670	.020"	SX215
1,600	.305 × .670	.020"	SX216
1,800	.319 × .670	.020"	SX218
2,000	.329 × .670	.020"	SX220
2,200	.339 × .670	.020"	SX222

Cap. pF	Max. Size, in Dia. X Lg.	Lead Diameter (Inches, ±.002")	Catalog No.
2,400	.352 × .670	.020"	SX224
2,500	.355 × .670	.020"	SX225
2,700	.362 × .670	.020"	SX227
3,000	.366 × .670	.020"	SX230
3,300	.378 × .670	.020"	SX233
3,600	.388 × .670	.020"	SX236
3,900	.398 × .670	.020"	SX239
4,300	.414 × .670	.020"	SX243
4,700	.425 × .670	.020"	SX247
5,000	.445 × .670	.020"	SX250
5,100	.447 × .670	.020"	SX251
5,600	.453 × .670	.020"	SX256
6,200	.470 × .670	.020"	SX262
6,800	.480 × .670	.020"	SX268
7,500	.498 × .670	.020"	SX275
8,200	.516 × .670	.020"	SX282
9,100	.532 × .670	.020"	SX291
10,000	.555 × .670	.020"	SX110
12,000	.520 × 1.260	.020"	SX112
15,000	.563 × 1.260	.020"	SX115
18,000	.598 × 1.260	.024"	SX118
22,000	.650 × 1.260	.024"	SX122
25,000	.690 × 1.260	.024"	SX125

Consult your local Mallory distributor for price information.

MALLORY fastening devices are durable yet economical and they are convenient to use. This line consists of clamps, clips, wire saddles, ties spacers, cable hangers and circuit board supports, guides and accessories. Whenever you are working with electrical or electronic components and accessories you will find a MALLORY fastening device makes the job easier for you. For prices in quantities of less than 100, consult your local Mallory distributor. For prices on all fastening devices reference price sheet No. 401.

●TYPE T, RT, IT, CABLE TIES

Mallory cable ties are precision molded of high strength, fungus resistant nylon, the tapered tail is inserted into the ties self-locking head. It is then pulled through until the bundle is secured. Our ties remain fully serviceable through 185°F. All Mallory ties are bagged 100 ties per package to attain maximum freshness.

Our heavy duty releaseable ties can be reused by pressing the conveniently located release lever. This allows complete removal for areas requiring frequent service or adjustment. They are perfect for prototype construction and temporary maintenance applications. Releaseable ties are black weather resistant nylon standard.

Standard Mallory ties are available in heat stabilized or weather resistant materials on special order.



Figure A



Figure B

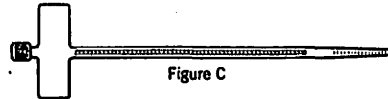


Figure C



Figure D

●TENSION GUN

Mallory is proud to offer three new tension guns to complement our cable ties. The Mark III is the industry standard gun with a lifetime replacement guarantee. This gun has adjustable tension settings and accommodates our T18S through T50L cable ties. Our Mark V tension gun is a new low cost alternative to the ever popular Mark III. Our Mark V gun does everything the Mark III does. The Mark V is made with high impact polycarbonate material and comes with a one year guarantee. Finally, we would like to introduce our newest tension gun specially designed for our heavy duty ties. Our HDT-150 will tension and cut all Mallory ties from the T18S to the T150L.

Description	Catalog Number
T18S through T50L ties	●Mark III
T18S through T50L ties	●Mark V
All ties	●HDT-150

TYPE EZ WIRE TIES

Just wrap them around the wire bundle, thread the end through the specially designed loop, pull it tight and lock in place. It stays put, holds your harness together until you release it. Should you want to add more conductors to the bundle, open the E-Z Wire Tie, add your wires and refasten it. It's as easy as that.

E-Z Wire Ties are strong and durable with a high dielectric that makes them the perfect tie for electrical harnesses.

*Material	Length	Color	Cat. No.
N	5"	White	EZ2
N	6"	White	EZ3
P	5"	Red	EZ4
P	5"	Yellow	EZ5
P	5"	Blue	EZ6
P	6"	Red	EZ7
P	6"	Yellow	EZ8
P	6"	Blue	EZ9
P	4"	Red	EZ10
P	4"	Yellow	EZ11
P	4"	Blue	EZ12
N	4"	Black	EZ13
P	10"	Red	EZ14
P	10"	Yellow	EZ15
P	10"	Blue	EZ16
N	10"	White	EZ17
N	4"	White	EZ18
N	8"	White	EZ19
P	8"	Red	EZ20
P	8"	Yellow	EZ21
P	8"	Blue	EZ22

*N = Nylon; P = Polyethylene.

Consult your local Mallory distributor for price information.

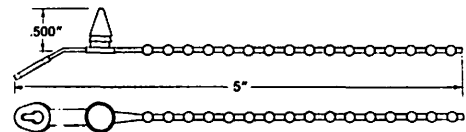
TYPE PT PUSH BUTTON WIRE TIES

Here's a new concept in harness bundling that eliminates screws. Simply press the conical head into a .250" dia. hole, wrap the beaded plastic tie around the harness and insert into slotted strap which is angulated for easy acceptance. The 16 bead five inch tie is adjustable to 16 bundling diameters from .125" to over 1.50". Wires may be substituted, added or removed by loosening the reusable tie and relocking it. Nylon or Polyethylene.

Series PT push button ties are designed to fit .250" holes in panels from .031" to .140" thick.

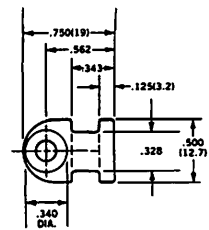
Color	Catalog No.	
	Polyethylene	Nylon 6/6
RED	PT200	PT300
BLUE	PT201	PT301
YELLOW	PT202	PT302
BLACK	PT203	PT303
NATURAL	PT205	PT305

To order natural color, flame retardant, VO rated nylon, specify part no. PT405.

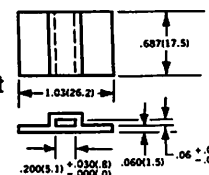


TYPE FTH TIE HOLDERS

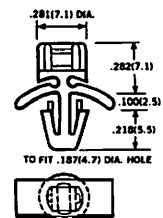
FTH1 — Screw-mount, flat wire tie holder.



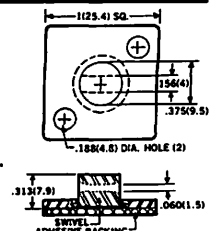
FTH2 — Self-stick mount flat wire tie.



FTH3 — Has "barbed arrow" tip to lock into .187" diameter hole, flat wire tie holder.



FTH4 — Swivel type, screw mount, flat wire tie holder.



FTH4A — Same as FTH4 except has adhesive backing.

ALL FLAT TIES U.L. RECOGNIZED

●STANDARD TIES FIG. "A"

Bundle Diameter Mix	Length Overall	Minimum Tensile Strength	Catalog Number
1/2"	3"	18 lbs.	●T18S
3/4"	4"	18 lbs.	●T18R
2"	8"	18 lbs.	●T18L
1 1/4"	5 1/2"	30 lbs.	●T30R
1 3/4"	7 3/4"	50 lbs.	●T50R
3"	11 3/4"	50 lbs.	●T50I
4"	15 3/4"	50 lbs.	●T50L
4"	15 1/4"	120 lbs.	●T120R
4"	15"	175 lbs.	●T150R
6"	21"	175 lbs.	●T150M
9"	30"	175 lbs.	●T150L

●MOUNTING TIES FIG. "B"

Mounting Hole Screw Size	Bundle Diameter Mix	Length Overall	Minimum Tensile Strength	Catalog Number
#4	3/4"	4"	18 lbs.	●T18MR
#8	1 1/4"	5 1/16"	30 lbs.	●T30MR
#10	1 3/4"	8 3/8"	50 lbs.	●T50MR
#10	4"	15 1/2"	50 lbs.	●T50ML
1/4"	4"	15 1/2"	120 lbs.	●T120MR
1/4"	1 3/4"	8 3/4"	50 lbs.	●T50R/SF*

*Push fit into 1/4" diameter hole

●RELEASEABLE TIES FIG. "D"

Bundle Diameter Mix	Overall Length	Minimum Tensile Strength	Catalog Number
7/8"	3 3/8"	50 lbs.	●RT50S
1/2"	5 1/2"	50 lbs.	●RT50R
1/2"	9 3/4"	50 lbs.	●RT50L

IDENTIFICATION TIES FIG. "C"

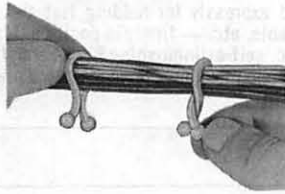
Bundle Diameter Mix	Overall Length	Minimum Tensile Strength	Catalog Number
3/4"	4"	18 lbs.	●IT18R
3/4"	7 3/4"	50 lbs.	●IT50R

●NEW PRODUCT

CONTINUED

Specifications subject to change without notice.

TYPE TL TWIST-LOK® TIES

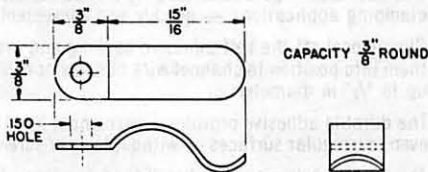


Slip bundle of wires into the tie, then twist the ends together with a flick of the fingers. The TWIST-LOK locks in place and holds your wire bundle securely and firmly. To open, another flick of the fingers releases the tie instantly — ready to be used again.

SPECIFICATIONS TWIST-LOK WIRE TIES

Approximate Overall Height	Wire Bundle Diameter	Catalog Number
.900"	200-.300"	TL250
1.032"	.300-.400"	TL350
1.200"	.400-.500"	TL450
1.550"	.700-.800"	TL750

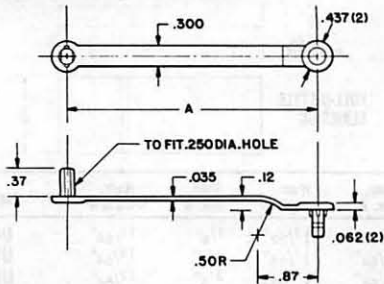
**ACETAL TENSION CLIP →
TYPE 30-1**



The Mallory ACETAL TENSION CLIP has a thousand uses and performs them all well.

Made of ACETAL, these clips are strong yet elastic. Designed primarily for holding cables or wires, they can be used to hold a multitude of objects — tubing, pipe, pictures, signs, etc. Color White.

TYPE CH CABLE HANGERS

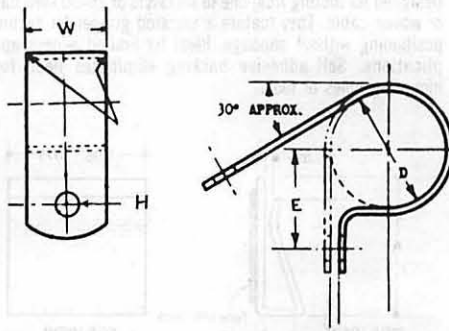


Simply press the hanger into a .250" dia. hole — just like before, except now it takes less pressure. Wrap the strap around the load — just like before, except now our offset design gives you more to grab. Then lock by inserting the post into the part — just like before, except now it fits more easily and holds harder. Your load cannot shake loose. Color White.

Nominal Dim. A	Holding Dia. Capacity	Cat. No.
1.75"	$\frac{3}{8}$ "	CH1N
2.75"	$\frac{5}{8}$ "	CH2N
3.75"	1"	CH3N
4.75"	$1\frac{1}{4}$ "	CH4N
1.75"	$\frac{3}{8}$ "	CH1P
2.75"	$\frac{5}{8}$ "	CH2P
3.75"	1"	CH3P
4.75"	$1\frac{1}{4}$ "	CH4P

N = Nylon; P = Polypropylene

TYPES N; N-B; E; AL; NE



TYPE N $\frac{3}{8}$ " WIDE NYLON CABLE CLAMPS

D	E	T	H	Cat. No.
$\frac{1}{16}$ "	$\frac{9}{32}$ "	$\frac{3}{64}$ "	$\frac{1}{8}$ "	N1
$\frac{1}{8}$ "	$\frac{21}{64}$ "	$\frac{1}{16}$ "	$\frac{11}{64}$ "	N2
$\frac{3}{16}$ "	$\frac{25}{64}$ "			N3
$\frac{1}{4}$ "	$\frac{27}{64}$ "			N4
$\frac{5}{16}$ "	$\frac{29}{64}$ "			N5
$\frac{3}{8}$ "	$\frac{31}{64}$ "			N6
$\frac{3}{8}$ "	$\frac{31}{64}$ "			N6 black
$\frac{7}{16}$ "	$\frac{17}{16}$ "			N7
$\frac{1}{2}$ "	$\frac{9}{16}$ "			N8

TYPE N-B $\frac{1}{2}$ " WIDE NYLON CABLE CLAMPS

D	E	T	H	Cat. No.
$\frac{1}{8}$ "	$\frac{21}{64}$ "	$\frac{1}{16}$ "	$\frac{13}{64}$ "	N2B
$\frac{3}{16}$ "	$\frac{25}{64}$ "			N3B
$\frac{1}{4}$ "	$\frac{27}{64}$ "			N4B
$\frac{5}{16}$ "	$\frac{29}{64}$ "			N5B
$\frac{3}{8}$ "	$\frac{31}{64}$ "			N6B
$\frac{7}{16}$ "	$\frac{17}{32}$ "			N7B
$\frac{1}{2}$ "	$\frac{9}{16}$ "			N8B
$\frac{9}{16}$ "	$\frac{19}{32}$ "			N9B
$\frac{5}{8}$ "	$\frac{5}{8}$ "			N10B
$\frac{11}{16}$ "	$\frac{21}{32}$ "			N11B
$\frac{3}{4}$ "	$\frac{49}{64}$ "			N12B
$\frac{7}{8}$ "	$\frac{13}{16}$ "			N14B
1"	$\frac{29}{32}$ "			N16B
$\frac{11}{8}$ "	$\frac{31}{32}$ "			N18B
$\frac{13}{16}$ "	1"			N19B
$\frac{11}{4}$ "	$\frac{11}{16}$ "			N20B
$\frac{11}{2}$ "	$\frac{17}{32}$ "			N24B
2"	$\frac{11}{2}$ "			N32B

TYPE NE VINYL DIPPED ALUMINUM CABLE CLAMPS

W	D	E	T	H	Cat. No.
$\frac{3}{8}$ "	$\frac{3}{16}$ "	$\frac{13}{32}$ "	$\frac{1}{32}$ "	$\frac{11}{64}$ "	NE3
	$\frac{1}{4}$ "	$\frac{7}{16}$ "			NE4
	$\frac{5}{16}$ "	$\frac{15}{32}$ "			NE5
	$\frac{3}{8}$ "	$\frac{1}{2}$ "			NE6
	$\frac{7}{16}$ "	$\frac{17}{32}$ "			NE7
	$\frac{1}{2}$ "	$\frac{9}{16}$ "			NE8
	$\frac{9}{16}$ "	$\frac{19}{32}$ "			NE9
	$\frac{5}{8}$ "	$\frac{5}{8}$ "			NE10
$\frac{1}{2}$ "	$\frac{11}{16}$ "	$\frac{3}{4}$ "	$\frac{1}{16}$ "	$\frac{13}{64}$ "	NE11
	$\frac{3}{4}$ "	$\frac{25}{32}$ "			NE12
	$\frac{7}{8}$ "	$\frac{27}{32}$ "			NE14
	$\frac{15}{16}$ "	$\frac{7}{8}$ "			NE15
	1"	$\frac{29}{32}$ "			NE16
	$\frac{11}{8}$ "	$\frac{31}{32}$ "			NE18
	$\frac{11}{4}$ "	$\frac{13}{64}$ "			NE20

Ethocel combines light weight and chemical resistance with excellent shock resisting properties in a temperature range from 185 F. to -40 F.

With toughness and excellent electrical properties, ethocel clamps have satisfied unlimited fastening problems throughout the electrical industry.

Approved 7-21-44 Army-Navy Aeronautical AN742.

TYPE E $\frac{1}{2}$ " WIDE ETHYL CELLULOSE PLASTIC CABLE CLAMPS

D	E	T(±.005")	H	Cat. No.
$\frac{1}{8}$ "	.328	.055"	.199-.204	E2
$\frac{3}{16}$ "	.390			E3
$\frac{1}{4}$ "	.421			E4
$\frac{5}{16}$ "	.453			E5
$\frac{3}{8}$ "	.483			E6
$\frac{7}{16}$ "	.531			E7
$\frac{1}{2}$ "	.562			E8
$\frac{9}{16}$ "	.625			E9
$\frac{19}{32}$ "	.618			E9½
$\frac{5}{8}$ "	.610			E10
$\frac{11}{16}$ "	.666			E11
$\frac{3}{4}$ "	.765			E12
$\frac{7}{8}$ "	.812			E14
1"	.906			E16
$\frac{11}{8}$ "	.968			E18
$\frac{13}{16}$ "	1.025			E19
$\frac{11}{4}$ "	1.156			E20
$\frac{15}{16}$ "				E21
$\frac{13}{8}$ "				E22
$\frac{17}{16}$ "				E23
$\frac{11}{2}$ "				E24

TYPE AL ALUMINUM CABLE CLAMPS

- Wide range of sizes
- Strong
- Durable
- Rust-proof
- Low cost

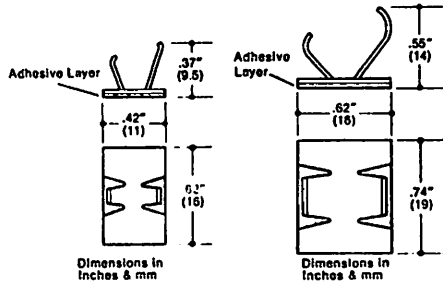
TYPE AL ALUMINUM CABLE CLAMPS

W	D	E	T	H	Cat. No.
$\frac{3}{8}$ "	$\frac{1}{8}$ "	$\frac{11}{32}$ "	$\frac{1}{32}$ "	$\frac{3}{16}$ "	AL2
	$\frac{3}{16}$ "	$\frac{3}{8}$ "			AL3
	$\frac{1}{4}$ "	$\frac{13}{32}$ "			AL4
	$\frac{5}{16}$ "	$\frac{7}{16}$ "			AL5
	$\frac{3}{8}$ "	$\frac{15}{32}$ "			AL6
	$\frac{7}{16}$ "	$\frac{1}{2}$ "			AL7
	$\frac{1}{2}$ "	$\frac{17}{32}$ "			AL8
	$\frac{9}{16}$ "	$\frac{9}{16}$ "			AL9
	$\frac{5}{8}$ "	$\frac{19}{32}$ "			AL10
$\frac{1}{2}$ "	$\frac{11}{16}$ "	$\frac{5}{8}$ "	$\frac{1}{16}$ "	$\frac{13}{64}$ "	AL11
	$\frac{3}{4}$ "	$\frac{3}{4}$ "			AL12
	$\frac{7}{8}$ "	$\frac{13}{16}$ "			AL14
	$\frac{15}{16}$ "	$\frac{27}{32}$ "			AL15
	1"	$\frac{7}{8}$ "			AL16
	$\frac{11}{8}$ "	$\frac{15}{16}$ "			AL18
	$\frac{11}{4}$ "	$\frac{11}{64}$ "			AL20

Consult your local Mallory distributor for price information.

TYPE SK—STICKY KLIPS

Mallory introduces a new line of adhesive cable clips. STICKY-KLIPS are made of pliable yet strong aluminum and are designed in two sizes to hold in place cables ranging up to 5/32" (6 mm) or up to 3/8" (10 mm) diameters. Linked in strips of ten, they snap apart for easy placement. Just remove the adhesive backing, arrange them on any flat surface and the STICKY-KLIPS are permanent. For phone cords, piping, electrical runs . . . and they hold at any angle.



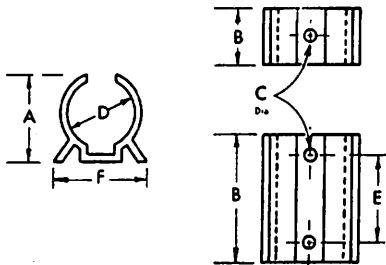
Max. Holding Dia.	Catalog No.
5/32" (6 mm)	SK3
3/8" (10 mm)	SK6

TYPE V—VINYL COMPONENT CLIPS

Mallory Plastic Component Clips are a convenient, economical means for fastening and, where required, insulating a wide variety of electrical and electronic components, accessories and parts. They permit fast and easy insertion, hold firmly, yet allow easy removal. Typical applications are capacitors, resistors, lamps, batteries and fuses.

They are made of strong, black vinyl and have high dielectric strength.

The floor of the clip is pierced for screws or other fastening devices.



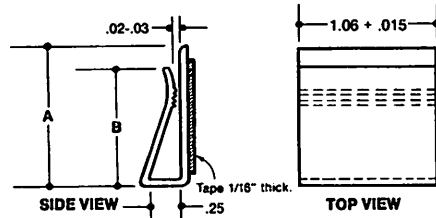
DIMENSIONS

Dia. of Part to Be Held	Max. Height A	Length B	Dia. of Hole C	Between Holes E	F Max.	Cat. No.
1/4	13/32	1/2	3/32		1/2	V1000
5/16	15/32	1/2	3/32		33/64	V1001
3/8	1/2	1/2	3/32		5/8	V1002
7/16	1/2	1/2	3/32		11/16	V1003
1/2	5/8	1/2	3/32		11/16	V1004
9/16	5/8	1/2	3/32		3/4	V1005
5/8	5/8	1/2	3/32		29/32	V1006
11/16	3/4	1/2	5/32		1	V1007
3/4	7/8	1/2	5/32		1	V1008
7/8	1	1/2	5/32		1 1/8	V1009
1	1 1/4	1 1/8	5/32	3/4	13/8	V1010
1 3/8	1 5/32	1 1/8	5/32	3/4	17/16	V1011
1 1/2	1 3/4	1 3/4	5/32	3/4	1 29/64	V1024
2 1/4 to 2 3/4	2 5/8	1 1/2	5/32	3/4		V1030

•NEW PRODUCT

•TYPE CFCC FLAT CABLE CLAMPS

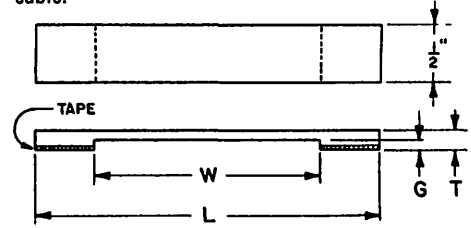
Designed for routing from one to six layers of 26-30 AWG flat or woven cable. They feature a serrated gripper for secure positioning without slippage. Ideal for limited access applications. Self-adhesive backing eliminates need for mounting holes or tools.



Nom. Dim. A	Nom. Length B	Cat. No.
1/2"	.300	•CFCC-4
1"	.850	•CFCC-8

TYPE FGC FLAT CABLE CLAMPS

Designed expressly for holding flat flexible cable, ribbon cable, etc. — firmly in position. Made of high dielectric, self-extinguishing PVC. Peel off the Mylar backing from the clamp's two legs, and press over the cable.



+1/8" L-0"	+1/16" W-0"	+015" T-010"	+01" 6-02"	Catalog No.
1 1/2"	1/2"	5/32"	3/32"	FCC43
2"	1"	5/32"	3/32"	FCC83
3"	2"	5/32"	3/32"	FCC163
4"	3"	5/32"	3/32"	FCC243

TYPE UC & HUC

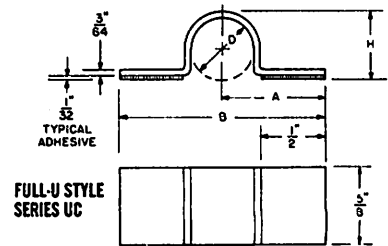
Mallory's self-adhesive PVC clips, available in full-U and half-U configurations, satisfy a wide variety of clamping applications — quickly and conveniently.

Simply peel off the self-adhesive backing and press them into position to channel wire bundles or cables up to 1/2" in diameter.

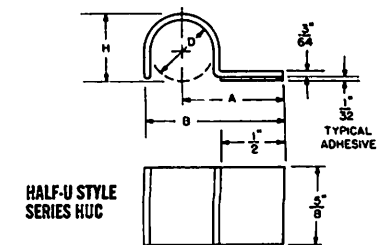
The durable adhesive provides a permanent bond — even to irregular surfaces — without tools or screws.

The full-U style provides two-legged bonding. The half-U version provides one-legged bonding and is recommended for corners, edges, or limited space application.

Fast, neat economical and very, very versatile.



Nom. Dim. A	Nom. Length B	Nom. Dia. D	Nom. Height H	Cat. No.
4 1/64"	17/32"	1/8"	1 1/64"	UC2
45/64"	17/16"	1/4"	19/64"	UC4
49/64"	1 17/32"	3/8"	27/64"	UC6
53/64"	1 21/32"	1/2"	35/64"	UC8

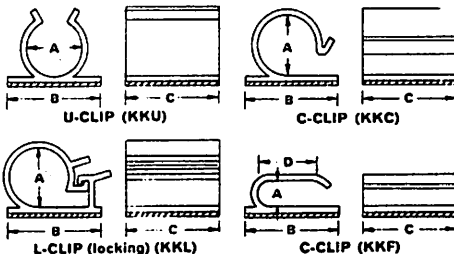


Nom. Dim. A	Nom. Length B	Nom. Dia. D	Nom. Height H	Cat. No.
4 1/64"	45/64"	1/8"	1 1/64"	HUC2
45/64"	53/64"	1/4"	19/64"	HUC4
49/64"	81/64"	3/8"	27/64"	HUC6
53/64"	1 5/64"	1/2"	35/64"	HUC8

TYPE KK—KWIK-KLIP

Just strip off the protective backing and press KWIK-KLIP in place — it will stay there permanently. For anchoring cable, tubing, pipe or rod up to 1/2" in diameter.

Made from strong but resilient CPVC plastic — elastic enough to receive cable, tubing, etc. — but strong and firm to hold it securely.



SPECIFICATIONS

Dia. of Part To Be Held				Cat. No.
A (inches)	B (inches)	C (inches)	D (inches)	
1/8	3/4	3/4	—	KKU2
1/4	3/4	3/4	—	KKU4
3/8	3/4	3/4	—	KKU6
1/2	1	1	—	KKU8
3/4	1	1	—	KKU12
1/8	3/4	3/4	—	KKC2
3/16	3/4	3/4	—	KKC3
1/4	3/4	3/4	—	KKC4
5/16	3/4	3/4	—	KKC5
3/8	3/4	3/4	—	KKC6
1/2	1	1	—	KKC8
3/4	1	1	—	KKC12
1/4	3/4	3/4	—	KKL4
1/2	1	1	—	KKL8
3/4	1	1	—	KKL12
5/8 x 1/4	3/4	3/4	5/8	KKF10 x 4*

* Made especially to hold 3 wire leads, e.g. air conditioner leads.

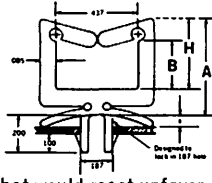
Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

TYPE WS WIRE SADDLES

Used to channel a group or bundle of wires over a given course. This may be done to avoid components that operate at dangerously high temperatures or that would react unfavorably to the proximity of other electrical currents. Or they may be used solely for the sake of orderly arrangement. Wire Saddles are available with a regular tip which may be removed or a permanent locking barbed arrow tip. Both easily snap into position into punched or drilled holes .187 in diameter.



Also available with "Barbed Arrow" locking tip. Order by adding Suffix A.

Dim. "B"	Dim. "H"	Dim. "A"	Catalog No.	
			Nylon "B"	Flame Retardant
3/8"	.510	.225	WS1N	WS1R
3/8"	.510	.225	WS1NA	WS1RA
37/64"	.715	.450	WS2N	WS2R
37/64"	.715	.450	WS2NA	WS2RA
15/16"	1.07	.800	WS3N	WS3R
15/16"	1.07	.800	WS3NA	WS3RA
1 1/4"	1.39	1.12	WS4N	WS4R
1 1/4"	1.39	1.12	WS4NA	WS4RA

TYPE LWS LOCKING WIRE SADDLE

For same use as "WS" series wire saddles, except wires or cable are locked into position by gently squeezing sides to engage spring action lapped-grooves.

Dim. "B"	Dim. "H"	Dim. "A"	Catalog No.	
			Nylon "B"	Flame Retardant
3/8"	.510	.135	LWS1N	LWS1R
3/8"	.510	.135	LWS1NA	LWS1RA
37/64"	.715	.340	LWS2N	LWS2R
37/64"	.715	.340	LWS2NA	LWS2RA
15/16"	1.07	.695	LWS3N	LWS3R
15/16"	1.07	.695	LWS3NA	LWS3RA
1 1/4"	1.39	1.015	LWS4N	LWS4R
1 1/4"	1.39	1.015	LWS4NA	LWS4RA

TYPE WWS WIDE WIRE SADDLE

An extra wide wire saddle made of high dielectric nylon. Handling loads up to 3/4" wide. It features a unique preloading shoulder for easier insertion and lasting stability and a locking tip which snaps into a .187" dia. hole. The tip expands upon insertion to lock permanently. It cannot loosen or fall out.

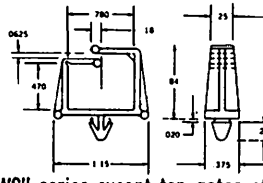
Dim. "B"	Dim. "H"	Dim. "A"	Catalog No.	
			Nylon "B"	Flame Retardant
.77	.50	.64	WWS2NA	WWS2RA
1.12	.85	.99	WWS3NA	WWS3RA

TYPE LWWS LOCKING WIDE WIRE SADDLES

Dim. "B"	Dim. "H"	Dim. "A"	Catalog No.	
			Nylon "B"	Flame Retardant
.77	.50	.64	LWWS2NA	LWWS2RA
1.12	.85	.99	LWWS3NA	LWWS3RA

TYPE RWWS EXTRA WIDE WIRE SADDLE (LOCKING)

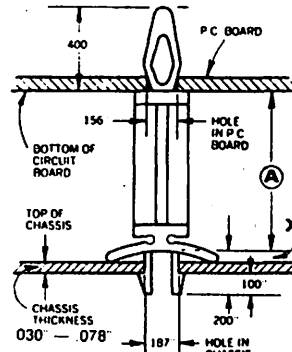
For same use as "WWS" series except top gates of saddle tension-lap to lock bundle in place. Requires .187 dia. hole.



Material	Catalog No.
Nylon	RWWS2NA
Flame Retardant	RWWS2RA

TYPE CBS CIRCUIT BOARD SUPPORTS

Designed to hold printed circuits in position with sufficient clearance above the chassis for their assembled components. They snap into .187" drilled or punched holes in the chassis where they lock into position securely. Supports lock on any chassis thickness from .030" to .090". They are, however, easily removed for replacement. Made from strong, tough nylon with high dielectric strength.

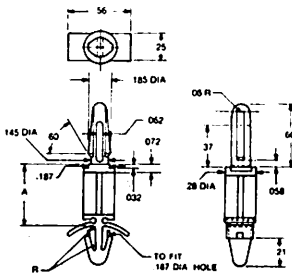


NOTE: X = .100" MINUS CHASSIS THICKNESS. Add "X" to Dimension "A" for accurate spacing between bottom of circuit board and top of chassis.

Nom. Dim. A	Catalog No.	
	Nylon	Flame Ret.
1/8"	CBS2NA	—
3/16"	CBS3N	CBS3R
1/4"	CBS4N	CBS4R
3/8"	CBS6N	CBS6R
1/2"	CBS8N	CBS8R
5/8"	CBS10N	CBS10R
3/4"	CBS12N	CBS12R
7/8"	CBS14N	CBS14R

TYPE LNCBS

The LNCBS extra long, 60° tapered tip speeds assembly and makes alignment of connector pins with their sockets accurate and easy. Snap into .187" drilled or punched hole.

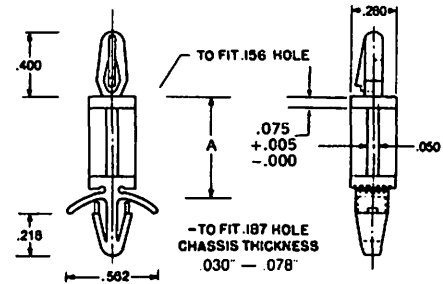


Consult your local Mallory distributor for price information.

Nom. Dim. A	Catalog Nos.	
	Nylon	Flame Ret.
3/16"	LNCBS3N	LNCBS3R
1/4"	LNCBS4N	LNCBS4R
3/8"	LNCBS6N	LNCBS6R
1/2"	LNCBS8N	LNCBS8R
5/8"	LNCBS10N	LNCBS10R
3/4"	LNCBS12B	LNCBS12R
7/8"	LNCBS14N	LNCBS14R

TYPE LCBS CIRCUIT BOARD SUPPORTS

Nylon Circuit Board Supports feature a locking tension flange which laps over the board to hold securely in position. Supports up to 100 lbs. No need for tools. An arrow-type locking head snaps into a .187" dia. hole in the chassis where it expands to lock permanently in position. A squeeze of the fingers permits removal of the board from the support for repair or replacement.

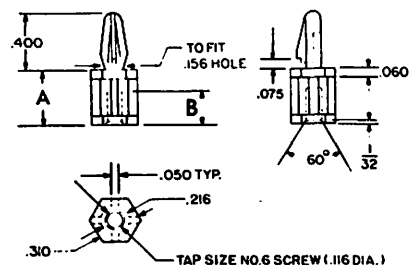


Nom. Dim. A	Catalog No.	
	Nylon	Flame Ret.
3/16"	LCBS3N	LCBS3R
1/4"	LCBS4N	LCBS4R
3/8"	LCBS6N	LCBS6R
7/16"	LCBS7N	LCBS7R
1/2"	LCBS8N	LCBS8R
5/8"	LCBS10N	LCBS10R
3/4"	LCBS12N	LCBS12R
7/8"	LCBS14N	LCBS14R
1"	LCBS16N	LCBS16R
1 1/8"	LCBS18N	LCBS18R
1 1/4"	LCBS20N	LCBS20R
1 3/8"	LCBS22N	LCBS22R

Available for special 1/8" chassis thickness.

TYPE TCBS CIRCUIT BOARD SUPPORT (SCREW FASTENED)

Drive a #6 self-tapping screw directly through the chassis and into the TCBS support. Then snap the circuit board over the top of the support. A tension flange compresses and then springs back to overlap and secure the board. Simply squeeze the end of the support to permit removal of the board for repair or replacement.



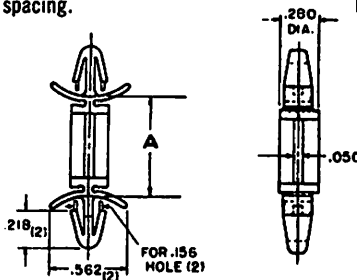
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Specifications subject to change without notice.

Nom. Dim. A	Nom. Dim. B	Catalog No.	
		Nylon	Flame Ret.
1/4"	13/16"	TCBS4N	TCBS4R
3/8"	1/4"	TCBS6N	TCBS6R
1/2"	1/4"	TCBS8N	TCBS8R
5/8"	1/4"	TCBS10N	TCBS10R
3/4"	1/4"	TCBS12N	TCBS12R
7/8"	1/4"	TCBS14N	TCBS14R
1 1/8"	1/4"	TCBS18N	TCBS18R
1 13/32"	1/4"	TCBS22.5N	TCBS22.5R

TYPE DLCBS DUAL LOCKING CIRCUIT BOARD SPACER

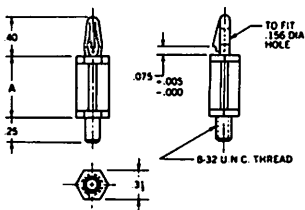
Seven sizes, rigid and rugged nylon spacers will space two boards from 3/16" to 7/8" apart — either vertically or horizontally. The spacer simply compression-snaps into .156" dia. hole on the two boards to be joined and spaced. Once inserted, the "Barbed Arrow" locking tips expand for permanent fastening on both boards to maintain the desired spacing. Pat. Pend.



Nom. Dim. A	Catalog No.	
	Nylon	Flame Ret.
3/16"	DLCBS3N	DLCBS3R
1/4"	DLCBS4N	DLCBS4R
3/8"	DLCBS6N	DLCBS6R
1/2"	DLCBS8N	DLCBS8R
5/8"	DLCBS10N	DLCBS10R
3/4"	DLCBS12N	DLCBS12R
7/8"	DLCBS14N	DLCBS14R

TYPE SCBS THREADED CIRCUIT BOARD SUPPORT

One-piece unit has #8-32 thread for speedy fastening to nut or receiver. Locking tab secures board. Flame retardant nylon supports available in eight spacing heights 1/4" to 1 13/32".

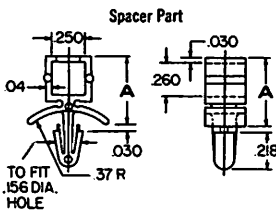


Nom. Dim. A	Catalog No.	
	U.L. 94 V-2 Nylon	U.L. 94 V-O Nylon
.25"	SCBS4N	SCBS4R
.37"	SCBS6N	SCBS6R
.50"	SCBS8N	SCBS8R
.62"	SCBS10N	SCBS10R
.75"	SCBS12N	SCBS12R
.87"	SCBS14N	SCBS14R
1.12"	SCBS18N	SCBS18R
1.43"	SCBS22.5N	SCBS22.5R

TYPE CBSS NYLON CIRCUIT BOARD STACKING SPACERS

Used to stack circuit boards in any number of vertical tiers or side by side rows. Their locking tip snaps through a .156" dia. hole in the board and into the top of the spacer below.

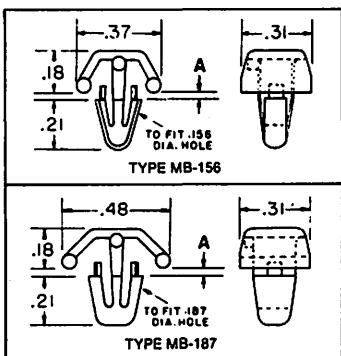
The system is completed by inserting nylon capping button MB1156 through the top board to lock it into the spacer below.



Nom. Dim. A	Catalog No.	
	Nylon	Flame Retardant
1/2"	CBSS8N	CBSS8R
5/8"	CBSS10N	CBSS10R
3/4"	CBSS12N	CBSS12R
7/8"	CBSS14N	CBSS14R

TYPE MB CAPPING BUTTONS

Use in place of screws, nails or rivets. Simply snap into place and locking tip expands to fasten permanently. Catalog number MB1156 used with CBSS series circuit board stacking spacers.



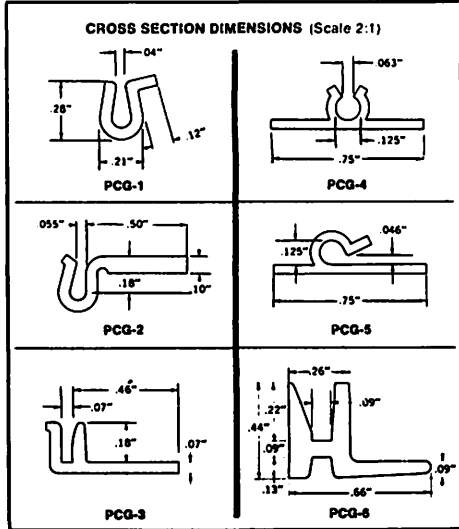
Nom. Dim. A	Catalog Number	
1/32"	*MB1156	*MB1187
3/32"	MB3156	MB3187
5/32"	MB5156	MB5187
7/32"	MB7156	MB7187
9/32"	MB9156	MB9187
1 1/32"	MB11156	MB11187
1 3/32"	MB13156	MB13187
1 5/32"	MB15156	MB15187
1 7/32"	MB17156	MB17187

*Stock item. All other MB numbers available on special order.
Note: Capping button fits all Series CBSS sizes.

TYPE PCG PRINTED CIRCUIT GUIDES

Made from accurately sized plastic extrusions. For precision placement and alignment of circuit boards. 4' length. Designed to take circuit boards 1/16" thick.

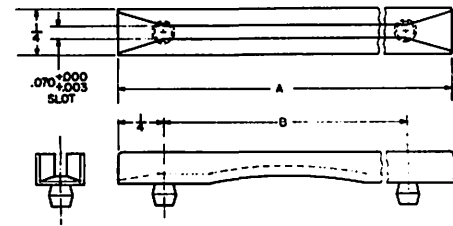
Consult your local Mallory distributor for price information.



Description	Catalog Number
No adhesive	PCG1
No adhesive	PCG2
Adhesive backing	PCG3
No adhesive	PCG3NA
Adhesive backing	PCG4
Adhesive backing	PCG5
No adhesive	PCG6

TYPE RCG RACK CARD GUIDES

Guides may be used horizontally or vertically for mounting circuit boards in rack chassis. Guides snap into .125" dia. hole at both ends. Four lengths in natural nylon.



Nom. Dim. A	Nom. Dim. B	Catalog No.
4"	3 1/2"	RCG2
6"	5 1/2"	RCG3
8 1/2"	7.95"	RCG4

CIRCUIT BOARD EDGE GUIDE

Designed to precisely align and support circuit boards, while allowing for easy insertion and removal of the board. Full length finger grip serrations allow for simple hand insertion into a panel hole .175" x .310". The arrow type locking head is self-adjusting to fit panel thicknesses from .03" to .09". Made of durable natural nylon.

Holding Height Dimension	W/O Locking End	With Locking End	With Flared Tab	Clothes-Locking End Pin Clamp
1"	CBG1	LCBG1	LCBGT1	—
1 1/2"	CBG1.5	LCBG1.5	LCBGT1.5	—
2"	CBG2	LCBG2	LCBGT2	—
3"	CBG3	LCBG3	LCBGT3	—
				CLC1

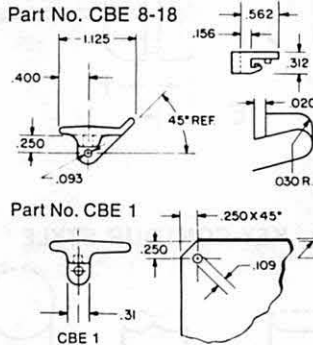
Add "N" suffix to above part numbers if you want nylon material or "R" suffix if you want flame retardant material.

CONTINUED

Specifications subject to change without notice.

TYPE CBE CIRCUIT BOARD EJECTOR

EJECTOR — Snap into single .109" dia. hole on circuit board. Flared easy-grip tab provides lever action against guide, rack or chassis to eject board. One size fits all boards up to 1/16" thick. Nylon.

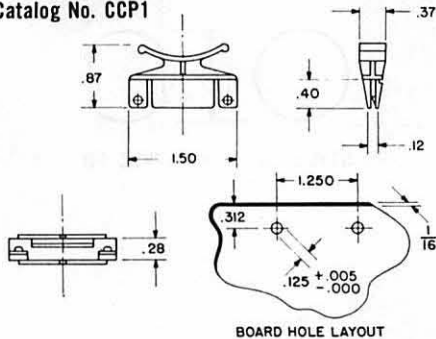


Color	Cat. No.	Color	Cat. No.
Natural	CBE1	Orange	CBE14
Natural	CBE8	Yellow	CBE15
Green	CBE9	Blue	CBE16
Black	CBE11	Violet	CBE17
Brown	CBE12	Gray	CBE18
Red	CBE13		

TYPE CCP CIRCUIT BOARD PULLER

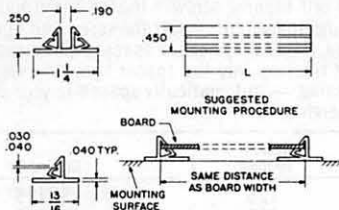
Snap into two .125" dia. holes. Curved tab permits firm fingertip grip. Simply pull to withdraw. One size fits all boards up to 1/16" thick. Nylon.

Catalog No. CCP1



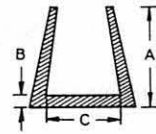
TYPE BMS CIRCUIT BOARD HOLD DOWN STRIP

Simply snap your circuit board into the channels of two Series BMS hold down strips for quick, secure fastening. These rigid vinyl hold down strips are easy to apply in any position. Just press the self-adhesive base to any material, or tack or staple to wooden surfaces. Available in two styles — for single boards or multiple side-by-side mounting. Accommodate boards of any length or width.



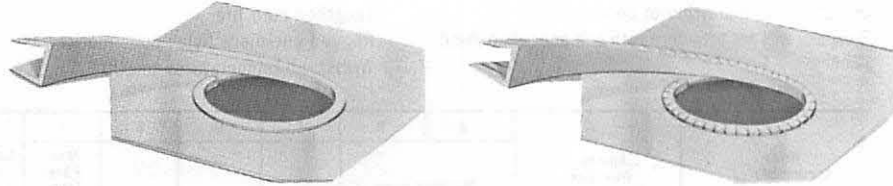
Base Width	L	Catalog No.
13/16"	4 feet long	BMSS (Single Mount)
1 1/4"	4 feet long	BMSD (Double Mount)

CONTINUOUS GROMMET



SOLID ...

... OR SERRATED



Now available in your choice of solid or serrated lengths . . . in polyethylene for normal service or nylon for severe service . . . in conveniently packaged 50 and 100 ft. lengths as shown below.

Description	Material	Reference Dimensions (in.)			Panel Thickness	Catalog No.
		A	B	C		
100' solid length	Polyethylene	1/8"	1/32"	1/32"	To .036" (20 Ga.)	PGS1
50' solid length	Nylon	1/8"	1/32"	1/32"	To .036" (20 Ga.)	NGS1
100' serrated length	Polyethylene	1/8"	1/32"	1/32"	To .036" (20 Ga.)	SPGS1
50' serrated length	Nylon	1/8"	1/32"	1/32"	To .036" (20 Ga.)	SNGS1
100' solid length	Polyethylene	5/32"	1/32"	7/64"	.037-.105" (19-12 Ga.)	PGS2
50' solid length	Nylon	5/32"	1/32"	7/64"	.037-.105" (19-12 Ga.)	NGS2
100' serrated length	Polyethylene	5/32"	1/32"	7/64"	.037-.105" (19-12 Ga.)	SPGS2
50' serrated length	Nylon	5/32"	1/32"	7/64"	.037-.105" (19-12 Ga.)	SNGS2
100' solid length	Polyethylene	5/32"	3/64"	5/32"	.106-.164" (11- 8 Ga.)	PGS3
50' solid length	Nylon	5/32"	3/64"	5/32"	.106-.164" (11- 8 Ga.)	NGS3
100' serrated length	Polyethylene	5/32"	3/64"	5/32"	.106-.164" (11- 8 Ga.)	SPGS3
50' serrated length	Nylon	5/32"	3/64"	5/32"	.106-.164" (11- 8 Ga.)	SNGS3
100' solid length	Polyethylene	3/16"	3/64"	3/16"	.165-.187"	PGS4
50' solid length	Nylon	3/16"	3/64"	3/16"	.165-.187"	NGS4
100' serrated length	Polyethylene	3/16"	3/64"	3/16"	.165-.187"	SPGS4
50' serrated length	Nylon	3/16"	3/64"	3/16"	.165-.187"	SNGS4
100' solid length	Polyethylene	3/16"	3/64"	1/4"	.188-.250"	PGS5
50' solid length	Nylon	3/16"	3/64"	1/4"	.188-.250"	NGS5
100' serrated length	Polyethylene	3/16"	3/64"	1/4"	.188-.250"	SPGS5
50' serrated length	Nylon	3/16"	3/64"	1/4"	.188-.250"	SNGS5

Natural color. Special colors available on request.
 * Conforms to MIL 1-613D
 ** Conforms to MIL 22096, Type 4.

EDGE HOLDER & HINGED CIRCUIT BOARD SUPPORT

- Simple two component system
- For easy access to underside components
- Without removal of board
- Available in three spacing heights
- High dielectric strength nylon

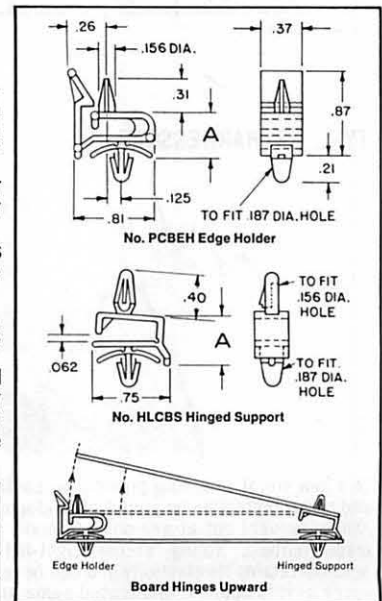
Mallory's Hinged Locking Circuit Board Support System is designed to provide convenient access for the repair or replacement of components on the underside of the circuit board — without removal of the board from the chassis.

At one side a PCB EH serves as an edge holder which notches over the board. Finger tip pressure permits the board to be lifted over and off the support post.

At the other side, a HLCBS hinged circuit board support allows the board to be lifted upward without disengaging it from the support.

"Barbed Arrow" tips of both components snap into .187" dia. holes and lock the parts firmly into the chassis. Both support posts snap into .156" dia. holes on the board.

The system generally consists of two PCB EH's on one side and two HLCBS's on the other — of equal spacing heights — for 4-corner support. Both components are made of natural high dielectric nylon in 7/16", 5/8" and 7/8" spacing heights, and are available with optional 1/16" dia. locating pegs.



Catalog Nos.		Nominal Spacing Dimension A
PCBEH-7	HLCBS-7	7/16"
PCBEH-10	HLCBS-10	5/8"
PCBEH-14	HLCBS-14	7/8"

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Mallory Fastening Devices

MALLORY

STRAIN RELIEF BUSHINGS



UNDERWRITER
LABORATORIES
FILE: E40234



CANADIAN
STANDARD
ASSOCIATION #27497

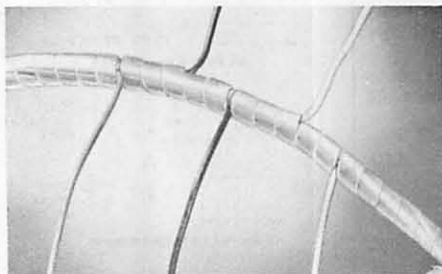
Cut Assembly Costs
Snap into panel hole where it locks in place
Do not injure insulation or conductor
Compact will not interfere with components behind panel

Eliminate need to tie or knot cords for strain relief
Positive, non-slip grip on cord
Lengthen cord life
Rugged one-piece Nylon construction
Withstand temperatures to 300°F.

Wires Accommodated	Approx. Wire Size	A	B	C	D	E	F	Catalog No.
		Mounting Holes						
SP-1, SPT-1 #18/2	.120 x .220	.437	.395	.460	.410	.160	.062	D3
SP-1, SP-1 #18/2	.11 x .21							
XT (Clockwire) #18/2	.09 x .18	.375	.345	.425	.410	.155	.062	F2
SP-1, SPT-1 #18/2	.11 x .21							
XT (Clockwire) #18/2	.09 x .18	.375	.345	.425	.410	.155	.125	F21
SP-2, SPT-2 #16/2	.16 x .30	.515						
HPN #16/2								
SP-2, SPT-2 #18/2	.15 x .28	.500	.465	.570	.500	.171	.100	F4
HPN #18/2	.16 x .37							
HPN #16/3	.15 x .34							
SPT-2 #18/3								
SPT-3 #16/2	.20 x .37	.562	.530	.610	.600	.240	.130	F5
SPT-3 #18/2	.18 x .35							
SPT-3 #16/2	.20 x .37							
SPT-3 #16/3	.20 x .43							
		Use Style "B" Mounting Hole Only						
SPT-3 #18/2	.19 x .35	.730	.560	.775	.680	.275	.125	F30
SPT-3 #18/3	.19 x .39							
SV, SVT #18/2	.250	.500						
SV, SVT #18/3	.265	.515	.465	.560	.430	.165	.100	R5
HPD #16/2	.290	.515						
HPD #18/2	.270	.500						
SJ, SJT, SJO #16/2	.325							
SJ, SJT, SJP #18/2	.300	.656						
SJ, SJT, SJO #16/3	.355		.570	.730	.680	.275	.125	R6
SJ, SJT, SJO #18/3	.330	.687						
SJ, SJT, SJO #16/2	.325							
SJ, SJT, SJP #18/2	.300							
SJ, SJT, SJO #18/3	.330	.625	.570	.678	.585	.225	.125	R6A
SJ, SJT, SJO #18/4	.355							
SJ, SJT, SJO #16/3	.355							

Dimension in inches

TYPE HR HARNESSRAP

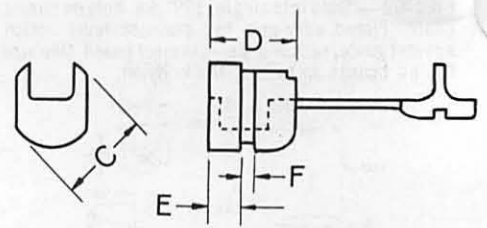


This new spiral wrapping provides a readily flexible and strong protection for groups of conductors. Leads can be brought out at any point to make a "tailor-made" harness, strong, secure, tight-fitting. HarnessRAP retains its elasticity and can be removed as easily as it is applied, and reused again and again.

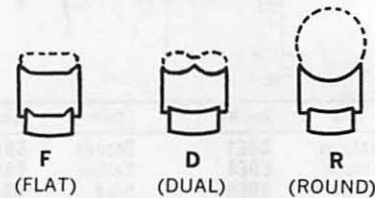
Material	O.D.	Catalog No.
Nylon	1/8"	HR125
Polyethylene	1/8"	HR125P
Flame Retardant	1/8"	HR125R
Ultraviolet Resistant	1/8"	HR125U
Nylon	3/16"	HR1875
Polyethylene	3/16"	HR1875P
Flame Retardant	3/16"	HR1875R
Ultraviolet Resistant	3/16"	HR1875U
Nylon	1/4"	HR250
Polyethylene	1/4"	HR250P
Flame Retardant	1/4"	HR250R
Ultraviolet Resistant	1/4"	HR250U
Nylon	3/8"	HR375
Polyethylene	3/8"	HR375P
Flame Retardant	3/8"	HR375R
Ultraviolet Resistant	3/8"	HR375U
Nylon	1/2"	HR500
Polyethylene	1/2"	HR500P
Flame Resistant	1/2"	HR500R
Ultraviolet Resistant	1/2"	HR500U

Consult your local Mallory distributor for price information.

BUSHING DIMENSIONS

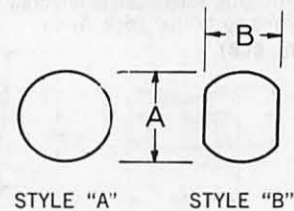


KEY-CONTOUR STYLE

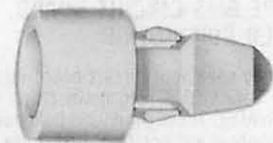


LETTERS ABOVE REFER TO PREFIX OF CATALOG NUMBER AND INDICATE STYLE OF BUSHING.

MOUNTING HOLES



TYPE SN SPACER NUT



A remarkable expanding nut that spaces, insulates and fastens. Punch a 5/16" sq. hole in the bottom board and insert the spacer nut with finger tip pressure. Two legs hold it firmly in position. Drill a hole for a #8 self-tapping screw in the top board and place it over the spacer nut. Insert the screw and tighten. As you do, the two legs on the spacer expand and the nut shaft rises up into the spacer body for sure, secure fastening — automatically spaced in your choice of six heights.

Nominal Spacing	Catalog No.
.125	SN125
.187	SN187
.250	SN250
.312	SN312
.375	SN375
.500	SN500

PLASTIC SPACERS

Tough, rigid, strong and low cost. High temperature resistant (225°F), polyvinyl dichloride. (Fig. A)

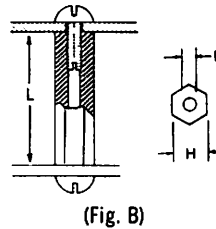
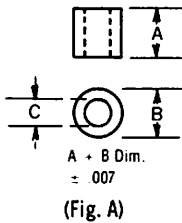
Screw Size	"A" Nom. Dim. and Cat. Nos. (Fig. A)						Nom. Dim.	
	1/4"	3/8"	1/2"	5/8"	3/4"	1"	B	C
No. 4	SS42	SS43	SS44	SS45	SS46	SS48	1/4"	.120"
No. 6	SS62	SS63	SS64	SS65	SS66	SS68	1/4"	.147"
No. 8	SS82	SS83	SS84	SS85	SS86	SS88	1/4"	.175"
NO. 8	SS82L	SS83L	SS84L	SS85L	SS86L	SS88L	3/8"	.175"
No. 10	SS102	SS103	SS104	SS105	SS106	SS108	3/8"	.200"

HEX SPACER-STANDOFFS

For use with self-tapping screws. Made from P.V.D.C. Good mechanical strength, low moisture absorption. Resistant to chemicals. (Fig. B)

Self-Tapping Screw Size	"L" Lengths and Cat. Nos. (Fig. B)						Nom. Dim.	
	3/8"	1/2"	5/8"	3/4"	7/8"	1"	H	D
No. 4	HS43	HS44	HS45	HS46	HS47	HS48	.187"	.092"
No. 6		HS64	HS65	HS66	HS67	HS68	.250"	.141"
No. 8			HS85	HS86	HS87	HS88	.375"	.141"

#25 Plastic thread cutting screw recommended



SCREW INSULATORS AND BUSHINGS

These versatile molded nylon fasteners offer substantial mechanical and electrical advantages over metal parts — at economics you can't afford to overlook.

They may be used as screw insulators in applications where high strength non-insulated screws are required. Wide flanges effectively isolate screws from mounting surfaces.

These rugged one-piece molded nylon fasteners also satisfy a wide variety of bushing applications. And, because they require little or no lubrication, they can be used as light loading bearings.

Let your imagination run wild and take full advantage of the proven reliability of rugged, high dielectric nylon.

Corrosion-resistant, non-toxic molded nylon

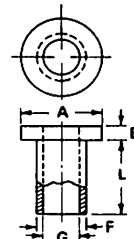
Lightweight ruggedness

High dielectric strength

Self-insulating

Abrasion-resistant

Screw Size	Lengths L	Nominal Dimensions				Catalog No.
		A	B	F	G	
#4	.046	.252	3/64	.140	.113	#4-3
#4	.084	.235	3/64	.145	.115	#4-5
#4	.093	.235	3/64	.145	.115	#4-6
#4	.156	.235	3/64	.145	.115	#4-10
#4	.250	.235	3/64	.145	.115	#4-16
#6	.250	.300	3/64	.170	.138	#6-16
#8	.375	.345	1/16	.205	.173	#8-24
#10	.375	.400	1/16	.260	.200	#10-24
1/4"	.375	.535	1/16	.315	.252	#250-24



WHEN ORDERING, please specify screw size.

Consult your local Mallory distributor for price information.

Control and Switch Hardware

MALLORY

VOLUME CONTROL NUT WRENCH

Fig.	Description	Catalog No.
A	For 1/2" and 3/8" hex nuts	178

HEX NUTS

Fig.	Description	Catalog No.
	All 3/8"-32"	
K	1/2" hex, 3/8"-32	232
L	.218" shoulder length	255
L	.328" shoulder length	A1126012
L	.578" shoulder length	A112602

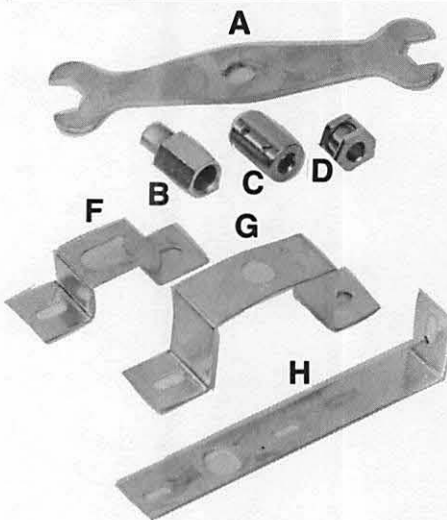
CONTROL AND SWITCH WASHERS

Description	Catalog No.
Extruded fiber; 3/4" O.D., 3/8" I.D.	203
Flat phenolic; 3/4" O.D., 3/8" I.D.	212
Nickel finish metal, 3/8" I.D.*	225
Nickel finish metal, 7/16" I.D.*	226
Cadmium plated lock washers†	227

* 5/8" O.D. † 11/16" O.D., 25/64" I.D.

ADJUSTABLE MOUNTING BRACKETS

Fig.	Description	Catalog No.
F	1 3/4" mounting centers	RB248
G	2 1/2" mounting centers	RB249
H	Universal	RB254



UNIVERSAL EXTENSION SHAFT

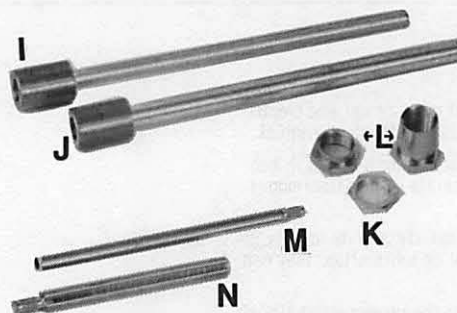
Fig.	Description	Catalog No.
J	4" long, 1/4" dia., 1/32" flat	RS242

COUPLERS, BUSHINGS

Fig.	Description	Catalog No.
C	Univ. coupler & reducer permits coupling of 1/4" shaft to 3/16"	EC240
B	Univ. extension bushing extends mounting surface from panel by 5/8"	EB247
D	Univ. bushing & nut 3/8" FMS .250 ID .375 OD	UB241

SPECIAL DIAL PLATES

Description	Catalog No.
1 1/16" dia., 1 to 24, 15° spacing	394
2 1/4" dia., 0-10 (330°)	369
2 1/4" dia., 0-10 (275°)	395
2 1/4" dia., 0-10 (260°)	397
2 1/4" dia., 0-10 (305°)	399
2" sq. Level	495
5 1/2" dia., 1-100 (330°)	M5001
1 1/4" dia., 0-100 (330°)	M5007



For prices, reference price sheet No. 401.

SWITCH AND CONTROL KNOBS

Fig.	Description	Catalog No.
A	1 1/8" dia. black; pointer, 1/4" shaft	364
B	2 1/4" blk bar; 1/4" shaft	365-1
C	1 1/4" blk bar; 1/4" shaft	366-1
D	1 1/2" black; 1/4" shaft	367-1
E	1" dia. blk; 1/4" shaft	368-1
F	3/4" black; 1/8" shaft	1910K
G	3/16" x 1 1/8" for lever switches; black	GS5149A
H	5/4" dia., x 3/4" thd. for lever switch; black	LK171-1
I	3 1/4" dia., blk; 3/8" shaft	M5104
I	3 1/4" dia., blk; 1/4" shaft	M5106
J	Knob for Malloslide	MS1

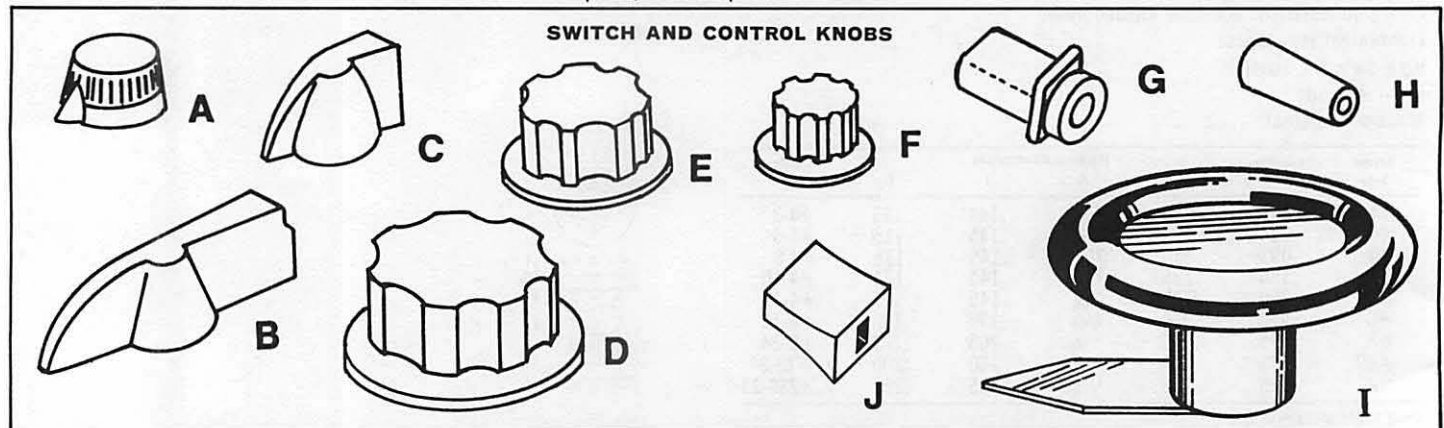
DIAL PLATES

Aluminum dial plates with figures etched on solid black background. 1 1/16" dia., 3/16" hole, figures 3/4" high, .020" thick.

Marking	Catalog Number
	30° Spacing
1 to 2	372
1 to 3	373
1 to 4	374
1 to 5	375
1 to 6	376
1 to 7	377
1 to 8	378
1 to 9	379
1 to 10	380
1 to 11	381
1 to 12	382
1 to 17	467*
Off 1 to 3	383
Off 1 to 4	384
Off 1 to 5	385
Off 1 to 6	386
Off 1 to 8	388
Off 1 to 9	389
Off 1 to 10	390

*20° Spacing

SWITCH AND CONTROL KNOBS



Consult your local Mallory distributor for price information.

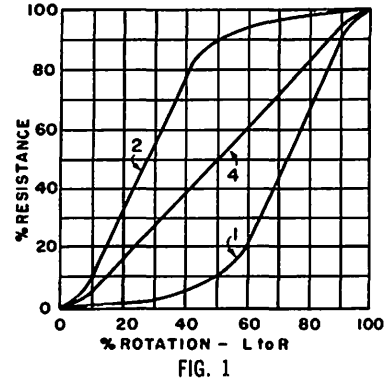
Basic specifications for carbon controls include both resistance and taper. Resistance values and tapers for the various types of Mallory carbon controls are shown in the General Catalog by means of a code: 1, 2, or 4. Taper refers to the percent of resistance change compared to percent of shaft rotation from left to right (clockwise when viewing controls from the front). See Fig. 1.

TAPER NO. 1: Left-hand logarithmic used in audio circuits where percent of change is small at start of rotation. Part number suffix is "A".

TAPER NO. 2: Right-hand logarithmic, used where percent of change must be large at start of rotation. The suffix is "R".

TAPER NO. 4: Linear taper where percent of resistance change is directly proportional to rotational change on a straight line. The suffix is "L".

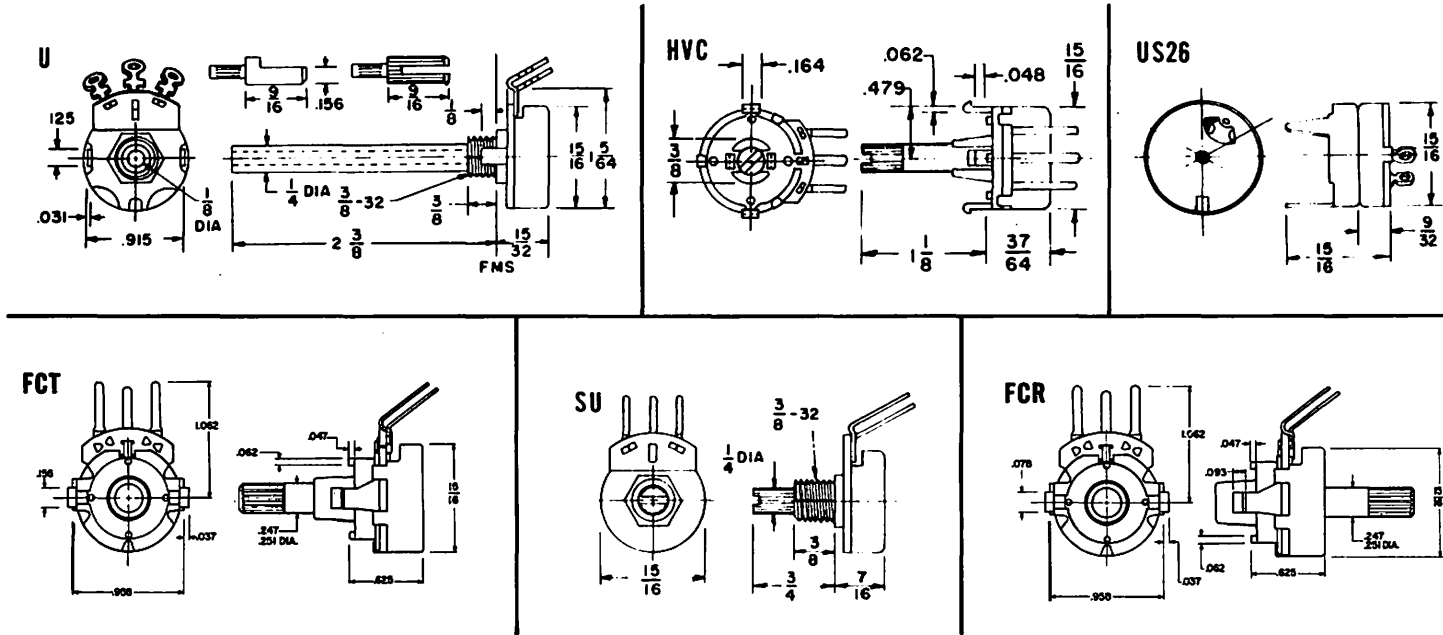
When checking taper attach ohmmeter probes to the center and left terminal when viewing control from the front with control terminals pointed down.



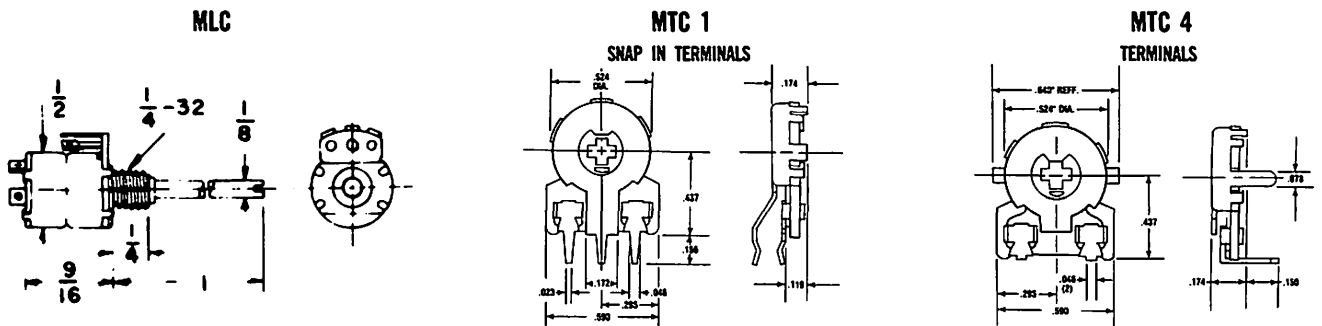
STA-LOC CONTROL SYSTEM

We have listed all STA-LOC components in a separate volume. This volume will be mailed to all STA-LOC distributors. To get one simply ask for bulletin 9-779.

MALLORY MIDGETROL®



TRIMMER CONTROLS



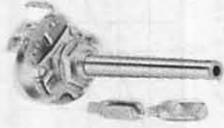
Consult your local Mallory distributor for price information.

Carbon Controls

MALLORY

MALLORY MIDGETROL®

Mallory Midgetrol is used in both replacement and industrial applications. Rated 1 watt linear, 1/2 watt audio taper. 15/16" diameter. Tapers: 1- left hand audio; 2- reverse audio; 4- linear. Rotation: Mechanical and electrical is 316° for controls with #2 and #4 tapers. If switch is used the electrical is reduced to 285°. Controls with #1 tapers have 316° mechanical and 285° electrical with or without switch. See page 103 for dimensional drawings and further taper information. For prices, reference price sheet No. 501.

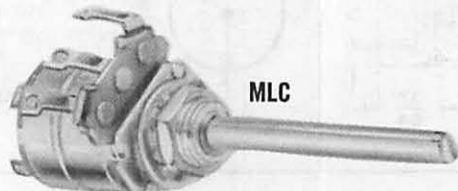


TYPE "U" BUSHING MOUNT — METAL SHAFT
3/8"-32 x 3/8" bushing; shaft 1/4" dia. x 2 3/8" FMS (Front Mounting Surface). Tolerance ± 20%. Furnished with two knob adapters and hex nut. Use DS extension shaft with U control hardware page 00.

WITHOUT TAPS

Resis., Ohms	†	Catalog No.	Resis., Ohms	†	Catalog No.
100	4	U1	100K	1	U39
500	4	U2	100K	4	U41
500	2	U52R	200K	4	U43
1K	2	U3	250K	4	U46
1K	4	U4	500K	1	U48
5K	1	U12	500K	4	U50
5K	4	U14	1 meg	1	U53
10K	1	U18	1 meg	4	U54
10K	4	U20	1.5 megs	4	U155
20K	4	U26	3 megs	4	U59
25K	4	U29	5 megs	4	U67
30K	4	U30	10 megs	4	U82
50K	1	U33			
50K	4	U35			

†Taper, see page 103.



MLC

MLC 1/2" MINIATURE CONTROLS

Only 1/2" dia. Rated 1/4 watt linear, 1/8 watt audio. 1/4"-32 x 1/4" bushing with nut. Shaft: 1/8" dia. x 1 1/16" FMS, MLC (steel); 1/8" dia. x 3/16" FMS, MLCN (nylon). SPST switch rated 3 amps at 125 VAC, U/L Approved. For prices, reference price sheet No. 501.

Type MLC Bushing Mount. Tolerance: MLC ± 20%.

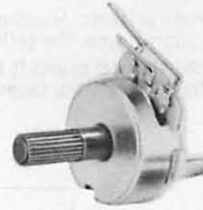
Ohms	†	Switch	Catalog No.
1000	4	.....	MLC13L
2200	4	SPST	MLC222LS
2500	1	.....	MLC252A
5000	1	.....	MLC53A
5000	1	SPST	MLC53AS
5000	4	.....	MLC53L
5000	4	SPST	MLC53LS
10K	1	.....	MLC14A
10K	1	SPST	MLC14AS
10K	4	.....	MLC14L
50K	4	.....	MLC54L
100K	1	.....	MLC15A
100K	1	SPST	MLC15AS
100K	4	.....	MLC15L
200K	4	.....	MLC25L
250K	4	.....	MLC254L
1 meg	4	SPST	MLC16LS
1 meg	1	.....	MLCN16A
1 meg	4	.....	MLCN16L

†Taper, see page 103.

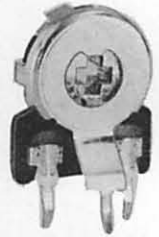
WARNING: To prevent shock hazard never replace an original equipment control having a plastic shaft with one that has a metal shaft.

TYPE "FC" SPECIAL CARBON ELEMENT FOCUS CONTROL

Especially designed to withstand high voltage surges in color TV sets. Available in two tab mounting configurations. Type FCT has a 1/4" x 1 1/2" nylon shaft and a snap-in nylon bushing extending from the front of the control. Type FCR has reverse mounting, a 1/4" x 1 1/2" nylon shaft extends out the rear of the control and a snap-in nylon bushing extends from the front of the control.



FCR 156L



MTC-1



MTC-4

Description	Resistance	†	Catalog No.
Shaft out the front	10 Meg.	4	FCT17L
Shaft out the front	15 Meg.	4	FCT156L
Shaft out the rear	15 Meg.	4	FCR156L

TYPE "SU" BUSHING MOUNT — NYLON SHAFT
Tolerance ± 20%. Same bushing as U type. Shaft 1/4" dia. x 3/4" FMS nylon. Supplied with pal nut.

Resis., Ohms	†	Catalog No.	Resis., Ohms	†	Catalog No.
1500	4	SU6	250K	4	SU46
5K	4	SU14	500K	4	SU50
10K	4	SU20	1 meg	4	SU54
25K	4	SU29	2 megs	4	SU56
50K	4	SU35	5 megs	4	SU67
100K	4	SU41			

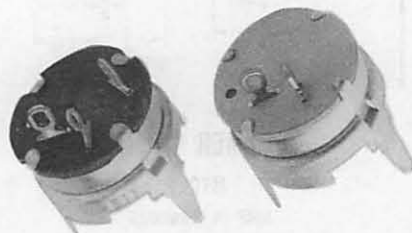
†Taper, see page 103.

TYPE "HVC" HIGH VOLTAGE COLOR CONTROL

To isolate control mounting from up to 4000 volts rms. Nylon insulating mounting plate and 1/4" dia. x 1 1/8" FMS nylon shaft.

Resistance	†	Catalog No.
3.5 megs	4	HVC355L

†Taper, see page 00.



SWITCHES

Switches for U, or PTA controls.

Description	Catalog No.
SPST, 6 amps at 125 VAC	US26*
SPST, w/ dummy terminal	US26T
DPST, 6 amps at 125 VAC	US27
SPDT, 3 amps at 125 VAC	US28

*Flame retardant U.L. recognized.

Consult your local Mallory distributor for price information.

MTC MINIATURE TRIMMER CONTROL
Designed for printed circuitry. Use wherever an occasionally adjusted, low wattage variable resistance source is needed. MTC-1 terminals for standup mounting, MTC-4 terminals for flat mounting. Open crossed slot allows adjustments with either a blade or Phillips screwdriver. Tolerance: ± 20%. Linear Taper. For prices, reference price sheet No. 501.

Element voltage 500 volts max. Rated 1/4 watt linear.

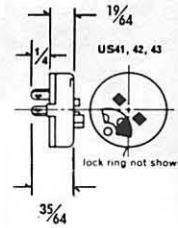
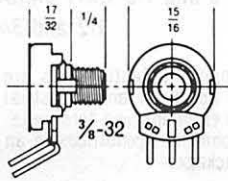
Warning: Do not exceed wattage rating of control.

Vertical Mounting	Horizontal Mounting	Resis., Ohms
MTC12L1	MTC12L4	100
MTC22L1	MTC22L4	200
MTC25L1L1	MTC25L1L4	250
MTC32L1		300
MTC52L1	MTC52L4	500
MTC75L1L1	MTC75L1L4	750
MTC13L1	MTC13L4	1000
MTC152L1	MTC152L4	1500
MTC23L1	MTC23L4	2000
MTC252L1	MTC252L4	2500
MTC33L1	MTC33L4	3000
MTC53L1	MTC53L4	5000
MTC63L1	MTC63L4	6000
	MTC682L4	6800
MTC14L1	MTC14L4	10K
MTC153L1	MTC153L4	15K
MTC24L1	MTC24L4	20K
MTC253L1	MTC253L4	25K
MTC54L1	MTC54L4	50K
MTC15L1	MTC15L4	100K
MTC184L1	MTC184L4	180K
MTC254L1	MTC254L4	250K
MTC3253L1	MTC3253L4	325K
	MTC454L4	450K
MTC55L1	MTC55L4	500K
MTC16L1	MTC16L4	1 meg
MTC26L1	MTC26L4	2 megs
MTC355L1	MTC355L4	3.5 megs
MTC56L1	MTC56L4	5 megs

Specifications subject to change without notice.

TYPE UA PLUG-IN SHAFT CONTROL

Single control with attached bushing $\frac{3}{8}$ " x $\frac{3}{8}$ " designed to work with pre-cut nylon or DELRIN shafts type SD or SN. No shaft cutting necessary. Simply select the desired shaft length and diameter snap into the control and that is all there is to it. If switch is desired use US41, US42, or US43 shown below. Tolerance: $\pm 20\%$. Supplied with hex nut. For prices, reference price sheet No. 503.



NO TAPS

Resis., Ohms	†	Catalog No.	Resis., Ohms	†	Catalog No.	Resis., Ohms	†	Catalog No.
100	4	UA12L	20K	4	UA24L	500K	1	UA55A
500	4	UA52R	25K	1	UA253A	500K	4	UA55L
500	2	UA52R	25K	4	UA253L	750K	1	UA754A
1000	4	UA13L	30K	4	UA34L	1 meg	1	UA16A
1500	2	UA152R	50K	1	UA54A	1 meg	4	UA16L
2000	4	UA23L	50K	4	UA54L	1.5 meg	4	UA155L
2500	2	UA252R	50K	2	UA54R	2 meg	1	UA26A
3000	4	UA33L	75K	1	UA753A	2 meg	4	UA26L
5000	1	UA53A	100K	1	UA15A	3 meg	4	UA36L
5000	4	UA53L	100K	4	UA15L	5 meg	1	UA56A
10K	1	UA14A	100K	2	UA15R	5 meg	4	UA56L
10K	4	UA14L	125K	4	UA123L	5 meg	2	UA56R
10K	2	UA14R	250K	1	UA254A	10 meg	4	UA17L
15K	2	UA153R	250K	4	UA254L			
20K	1	UA24A	250K	2	UA254R			

†Taper, see page 103.

TYPE "US" SERIES SWITCHES

Switches attach quickly and easily and are locked in place with a collar. Switches can be readily removed in service and replaced without removing the control from chassis. Flame Retardant U.L. approved. For prices, reference price sheet No. 503.

Description	Catalog No.
6 amp; 125 VAC SPST	US41
3 amp per pole, 6 amp total; 125 VAC DPST	US42
3 amp; 125 VAC SPDT	US43

EXACT "UA" REPLACEMENT SINGLE SHAFT

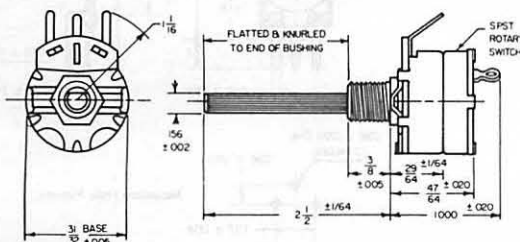
Exact duplicate, flat mill Delrin* shaft for single controls will replace original control shaft length without modification: for use with UA and RU STA-LOC® controls. Shaft lengths are measured from mounting surface (FMS) of control. For prices, reference price sheet No. 503.

*DuPont trademark.

.187" Diameter						.250" Diameter					
L., FMS Inches	.156" Flat L., Inches	Catalog No.	L., FMS Inches	.156" Flat L., Inches	Catalog No.	L., FMS Inches	.156" Flat L., Inches	Catalog No.	L., FMS Inches	.156" Flat L., Inches	Catalog No.
.750	.437	SD750	1.625	.562	SD1625	.750	.437	SN750	1.750	.562	SN1750
.875	.562	SD875	1.750	.562	SD1750	.875	.562	SN875	1.875	.562	SN1875
1.000	.562	SD1000	1.875	.562	SD1875	1.125	.562	SN1125	2.125	.562	SN2125
1.125	.562	SD1125	2.000	.562	SD2000	1.375	.562	SN1375	2.250	.562	SN2250
1.187	.875	SD1187	2.125	.562	SD2125	1.500	.562	SN1500	2.375	.562	SN2375
1.250	.562	SD1250	2.250	.562	SD2250	1.625	.562	SN1625	2.500	.562	SN2500
1.375	.562	SD1375	2.375	.562	SD2375						
1.500	.562	SD1500	2.500	.562	SD2500						

TYPE EZ

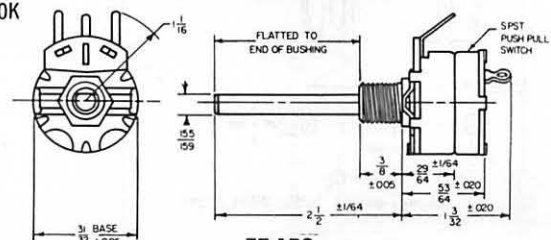
Mallory EZ controls are $\frac{1}{2}$ watt, audio taper. All are supplied with either rotary or push-pull, SPST, 5A @ 125VAC switch. Control tolerance $\pm 20\%$. $\frac{3}{8}$ "-32 x $\frac{3}{8}$ " bushing. Units with AS suffix have $\frac{1}{4}$ x $2\frac{1}{2}$ FMS plastic knurled-flatted shaft, APS has $\frac{3}{16}$ x $2\frac{1}{2}$ FMS plastic flatted shaft. For prices, reference price sheet No. 501.



EZ-AS

Ohms Res.	SW. Type	Catalog No.
500K	Rotary	EZ55AS
1 meg	Rotary	EZ16AS
500K	Push-Pull	EZ55APS
1 meg	Push-Pull	EZ16APS
1 meg	Push-Pull	EZ16T254APS*

* Tapped at 250K



EZ-APS

See page 102 for control hardware.

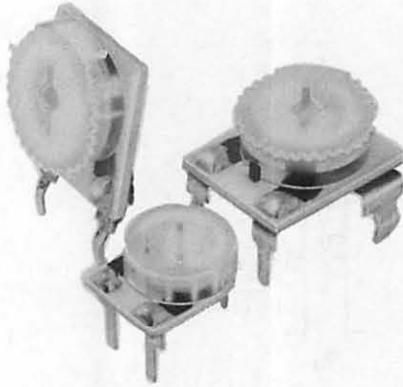
Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Trimmer Potentiometers

MALLYORY



SUBMINIATURE TRIMMING POTENTIOMETERS 1/5 and 1/3 WATT CARBON and CONDUCTIVE PLASTIC 1/2 and 3/4 WATT CERMET

Mallory subminiature trimming potentiometers are applicable to a variety of consumer and industrial applications. They provide excellent long-term reliability under adverse environmental conditions in an extremely small overall package.

Cermet units, additionally, provide considerably increased power dissipating capability in the same small package.

This line of quality trimming potentiometers is backed by Mallory and is your guarantee of performance and economy you can depend upon. For prices, reference price sheet No. 505.

FEATURES

- a Diminutive Size
- b Wide Resistance Ranges
- c Excellent Linearity
- d Economy
- e Non-Combustible Design
- f Extreme Resistance to Adverse Environments
- g Excellent Humidity Resistance
- h Alumina-Base
- i Resistant to Flux Solvents

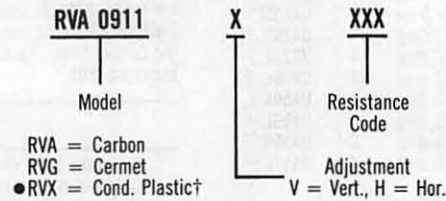
CERMET

All of the features above
PLUS;
1/2 and 3/4 watt Dissipation in the same size package.
Low Noise.

● CONDUCTIVE PLASTIC NEW PRODUCT†

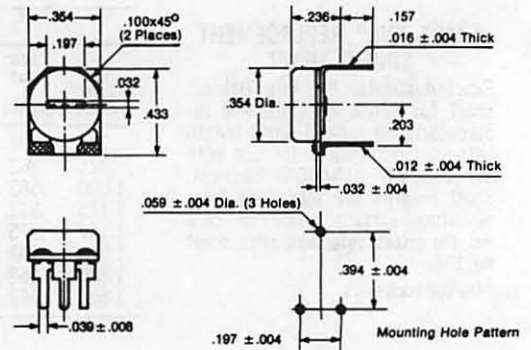
† Much better T.C. than comparable carbon units.

PART NUMBER IDENTIFICATION:

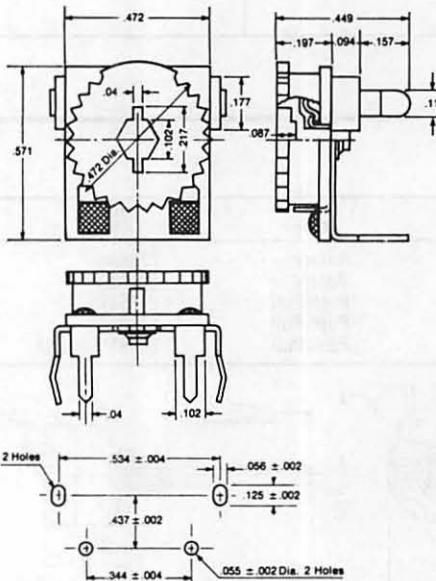


Resistance Ohms	Horizontal Adjustment	Vertical Adjustment	Horizontal Adjustment	Vertical Adjustment
500	0911H501	0911V501	1214H501	1214V501
1000	0911H102	0911V102	1214H102	1214V102
2500	0911H252	0911V252	1214H252	1214V252
5000	0911H502	0911V502	1214H502	1214V502
10K	0911H103	0911V103	1214H103	1214V103
25K	0911H253	0911V253	1214H253	1214V253
50K	0911H503	0911V503	1214H503	1214V503
100K	0911H104	0911V104	1214H104	1214V104
250K	0911H254	0911V254	1214H254	1214V254
500K	0911H504	0911V504	1214H504	1214V504
1 MEG	0911H105	0911V105	1214H105	1214V105
2 MEG	0911H205	0911V205	1214H205	1214V205

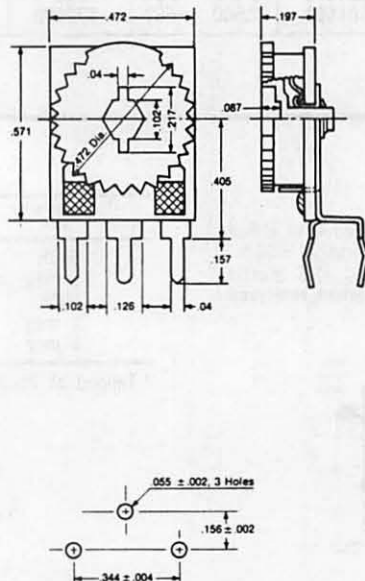
0911V



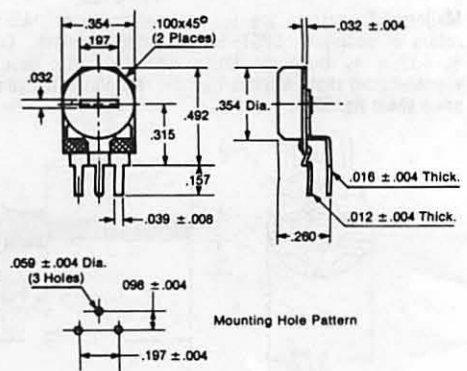
1214V



1214H



0911H



●NEW PRODUCT

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

ENVIRONMENTAL SPECIFICATIONS

	RVA (Carbon), ●RVX (Cond. Plastic) 0911/1214	RVG (Cermet) 0911/1214
Humidity Characteristics	After 24 hours at 40°C, 90-95% RH without loading, the change in resistance is less than +5%, -1%.	After 500 hours at 40°C, 90-95% RH without loading, the change in resistance is less than ±3%.
Temperature Characteristics	After 5 hours at 70°C without loading, the change in resistance is less than +0%, -5% (RVA), +1%, -7% (RVX).	After 500 hours at 70°C without loading, the change in resistance is less than ±3%.
Humidity Load Life	When rated voltage is applied intermittently on a cycle of 1.5 hours ON and 0.5 hours OFF for 1,000 hours (RVA), 500 hours (RVX) @ 40°C, 90-95% RH, the change in resistance is ±7% (RVA), ±10% (RVX).	When rated voltage is applied intermittently on a cycle of 1.5 hours ON and 0.5 hours OFF for 1,000 hours @ 40°C, 90-95% RH, the change in resistance is less than ±3%.
Temperature Load Life	When rated voltage is applied intermittently on a cycle of 1.5 hours ON and 0.5 hours OFF for 1,000 hours (RVA), 500 hours (RVX) @ 70°C, the change in resistance is less than ±7%.	When rated voltage is applied intermittently on a cycle of 1.5 hours ON and 0.5 hours OFF for 1,000 hours @ 70°C, the change in resistance is less than ±3%.
Rated Voltage Load Life	When voltage is applied for 3 hours, the change in resistance is less than ±5%.	When voltage is applied for 3 hours, the change in resistance is less than ±3%.
Temperature Cycling	After 5 temperature cycles are made without loading, the change in resistance is less than ±5%. One cycle is: -25°C (30 minutes) to room temp. @ +25°C (15 minutes) to +125°C (30 minutes) to room temp. @ +25°C (15 minutes).	After 5 temperature cycles are made without loading, the change in resistance is less than ±3%. One cycle is: -55°C (30 minutes) to room temp. @ +25°C (15 minutes) to +125°C (30 minutes) to room temp. @ +25°C (15 minutes).
Influence of Soldering	After the terminals are dipped in a solder bath at 350°C for 3 seconds, the change in resistance is less than ±2%.	
Rotation Life	After 100 continuous cycles at 10 cycles per minute, the change in resistance is less than +3%, -7%.	After 100 continuous cycles at 10 cycles per minute, the change in resistance is less than ±5%.
Temperature Coefficient of Resistance	±350ppm/°C (RVX) max. 350ppm/°C ±1000 (RVA)	±250ppm/°C max.

SPECIFICATIONS

Characteristic	RVG (Cermet)		
	0911	1214	
Resistance Range	500— 1M ohms	500— 1M ohms	
Tolerance	±20%	±20%	
Residual Resistance	less than 1% of nominal rated resistance		
Taper	Linear	Linear	
Power Rating	1/2W (70°C)	3/4W (70°C)	
Max. Working Voltage	350VDC	500VDC	
Torque	0.56-4.86 in. oz.	0.83-6.0 in. oz.	
Terminal Strength	35.27 oz.	35.27 oz.	
Effective Rotation	Elec.	240°	250°
	Mech.	260° ±10°	280° ±10°
Stop Strength	13.9 in. oz.		

Characteristic	RVA (Carbon) ●RVX (Cond. Plastic)		
	0911	1214	
Resistance Range	500— 5M ohms*	500— 5M ohms*	
Tolerance	±20%	±20%	
Residual Resistance	less than 1% of nominal rated resistance		
Taper	Linear	Linear	
Power Rating	1/5W (70°C)	1/3W (70°C)	
Max. Working Voltage	250VDC	350VDC	
Torque	0.56-4.86 in. oz.	0.83-6.0 in. oz.	
Terminal Strength	35.27 oz.	35.27 oz.	
Effective Rotation	Elec.	240°	250°
	Mech.	260° ±10%	280° ±10%
Stop Strength	13.9 in. oz.		

TRIM-POT CROSS-REFERENCE

MALLORY	CTS	PANASONIC	NOBLE	CENTRALAB	STACKPOLE	PIHER	BOURNS	IRC	MEPCO/ELECTRA
RVA0911H	X260	EVN-KOA	V8K1-1	—	—	PT10V	—	X260	8080N-MS
RVA0911V	U260	EVN-K4A	V8K4-1	TRA1	—	PT10H	—	U260	8080N-MT
RVA1214H	X201	EVL-QDA	—	TSC1	20V	PT15B	3355X	X201	8085-MS
RVA1214V	U201	EVL-Q1A	—	TSF1	20H	PT15D	3355U	U201	8085-MT

MALLORY	CENTRALAB	BOURNS	ALLEN-BRADLEY
RVG0911H	—	3359W	90V
RVG0911V	TRA2	3359P	90H
RVG1214H	TSC2	—	—
RVG1214V	TSF2	—	—

●NEW PRODUCT

Consult your local Mallory distributor for price information.

Power Rheostats



MALLORY

Mallory power rheostats utilize vitreous enamel construction for maximum environmental protection. All current-carrying parts are electrically insulated by dimensionally stable ceramic.

All types except the 12½ and 500 watt rated units are listed under the Underwriters Laboratories Reexamination Service. Current ratings listed

are for continuous operation in free air. If units are enclosed currents should be reduced by as much as 50% depending upon ventilation.

The rheostat will dissipate rated wattage at rated current with the total resistance of the rheostat in the circuit.

All tapers are linear. All bushings are non-locking types.

For prices on all power rheostats, reference price sheet No. 504.

TYPE M 12.5 WATTS

Dia. 7/8" O.D. Depth behind panel 11/16"—Rotation 300°—Mounts on panels up to 1/8" thick by means of 1/4"-32 Bushing and Hex Nut. Non-turn lug requires 1/8" hole 1/4" below center of shaft.

Ohms	Max. Amps	Catalog No.
1	3.53	M0101
2	2.50	M0102
6	1.44	M0104
8	1.25	M0105
10	1.12	M0106
25	.71	M0108
50	.50	M0110
75	.41	M0111
100	.35	M0112
125	.32	M0113
175	.27	M0114
250	.22	M0115
350	.19	M0116
500	.16	M0117
1000	.11	M0119
1500	.091	M0120
2500	.071	M0121
3500	.060	M0122
5000	.050	M0123
10000	.035	M4191

TYPE 25K 25-WATTS

Dia. 1 9/16"—Depth behind panel 1 3/8"—Shaft 1/4" dia. Rotation 300°—Mounts on panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut—Non-turn lug requires 3/16" hole 1/2" below center of shaft. UL listed. Weight 0.19 lb.

Ohms	Max. Amps	Catalog No.
1	5.000	25K1P
2	3.540	25K2P
3	2.880	25K3P
6	2.040	25K6P
8	1.770	25K8P
10	1.580	25K10P
15	1.290	25K15P
25	1.000	25K25P
35	.845	25K35P
50	.707	25K50P
75	.575	25K75P
100	.500	25K100P
125	.447	25K125P
175	.378	25K175P
250	.316	25K250P
350	.267	25K350P
500	.222	25K500P
750	.182	25K750P
1000	.155	25K1000P
1500	.129	25K1500P
2500	.100	25K2500P
3500	.084	25K3500P
5000	.070	25K5000P

TYPE 50K 50-WATTS

Dia. 2 5/16"—Depth behind panel 1 3/8"—Shaft 1/4" dia. Rotation 300°—Mounts on panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut—Non-turn lug requires 3/16" hole 1/2" below center of shaft. UL listed. Weight 0.32 lb.

Ohms	Max. Amps	Catalog No.
.5	10.000	50K.5P
1	7.070	50K1P

Ohms	Max. Amps	Catalog No.
2	5.000	50K2P
4	3.530	50K4P
6	2.880	50K6P
8	2.500	50K8P
12	2.040	50K12P
16	1.760	50K16P
22	1.500	50K22P
35	1.190	50K35P
50	1.000	50K50P
80	.790	50K80P
125	.630	50K125P
150	.575	50K150P
225	.470	50K225P
300	.408	50K300P
500	.316	50K500P
800	.250	50K800P
1000	.224	50K1000P
1600	.176	50K1600P
2500	.141	50K2500P
3500	.119	50K3500P
5000	.100	50K5000P
8000	.079	50K8000P
10000	.070	50K10000P

TYPE 75K 75-WATTS

Dia. 2 3/4"—Depth behind panel 1 3/4"—Shaft 1/4" dia. Rotation 300°—Mounts on panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut—Non-turn lug requires 3/16" hole 1/2" below center of shaft. UL listed. Weight 0.52 lb.

Ohms	Max. Amps	Catalog No.
.5	12.20	75K.5P
2	6.12	75K2P
3	5.00	75K3P
5	3.88	75K5P
7.5	3.16	75K7.5P
10	2.74	75K10P
25	1.73	75K25P
50	1.22	75K50P
75	1.00	75K75P
100	.87	75K100P
200	.61	75K200P
300	.50	75K300P
400	.43	75K400P
500	.39	75K500P
1000	.27	75K1000P
10000	.09	75K10000P

TYPE 100K 100-WATTS

Dia. 3 1/8"—Depth behind panel 1 3/4"—Shaft 1/4" dia. Rotation 300°—Mounts on panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut—Non-turn lug requires 3/16" hole 1/2" below center of shaft. UL listed. Weight 0.64 lb.

Ohms	Max. Amps	Catalog No.
.5	14.1	100K.5P
1	10.00	100K1P
2	7.07	100K2P
3	5.77	100K3P
5	4.47	100K5P
7.5	3.65	100K7.5P
10	3.16	100K10P
16	2.50	100K16P
25	2.00	100K25P
50	1.41	100K50P

Ohms	Max. Amps	Catalog No.
100	1.00	100K100P
200	.71	100K200P
300	.58	100K300P
400	.50	100K400P
500	.45	100K500P
750	.37	100K750P
1000	.32	100K1000P
1500	.26	100K1500P
2500	.20	100K2500P
5000	.14	100K5000P
7500	.12	100K7500P
10000	.10	100K10000P

TYPE 150K 150-WATTS

Dia. 4"—Depth behind panel 2"—Shaft 1/4" diameter. Rotation 300°—Mounting for panels up to 1/4", 3/8"-32 Bushing and Hex. Nut or two 10-32 flat head screws, mounting centers 7/8" each side of center of shaft on line perpendicular to center terminal. UL listed. Weight 1.1 lb.

Ohms	Max. Amps	Catalog No.
1	12.30	150K1P
2	8.66	150K2P
3	7.07	150K3P
5	5.48	150K5P
7.5	4.47	150K7.5P
10	3.87	150K10P
15	3.16	150K15P
25	2.45	150K25P
35	2.07	150K35P
50	1.73	150K50P
75	1.41	150K75P
100	1.22	150K100P
150	1.00	150K150P
200	.87	150K200P
250	.77	150K250P
350	.66	150K350P
500	.55	150K500P
750	.45	150K750P
1250	.35	150K1250P
1800	.290	150K1800P
2250	.26	150K2250P
3000	.22	150K3000P
4500	.18	150K4500P
7500	.14	150K7500P
10000	.12	150K10000P

TYPE 225K 225-WATTS

Dia. 5"—Depth behind panel 2 1/8"—Shaft 3/8" dia. Rotation 310°—Mounting for panels up to 1/4" by two 1/4"-20 screws, mounting centers 7/8" each side of center of shaft on center line of cross bar. UL listed. Weight 2 lbs.

Ohms	Max. Amps	Catalog No.
2	10.60	225K2P
3	8.66	225K3P
5	6.71	225K5P
10	4.74	225K10P
15	3.87	225K15P
25	3.00	225K25P
50	2.12	225K50P
75	1.73	225K75P
100	1.50	225K100P
150	1.22	225K150P
200	1.06	225K200P
300	.87	225K300P
400	.75	225K400P

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

Ohms	Max. Amps	Catalog No.
700	.57	225K700P
900	.50	225K900P
1200	.43	225K1200P
1500	.39	225K1500P
2500	.30	225K2500P

TYPE 300K 300-WATTS

Dial 6"—Depth behind panel 2 3/8"—Shaft 3/8" dia. Rotation 320°—Mounting for panels up to 1 1/4" by two 1/4"-20 screws, (supplied) mounting centers (M) 1 3/16" each side of center of shaft on center line of cross-bar. UL listed. Weight 2.6 lbs.

Ohms	Max. Amps	Catalog No.
1	17.32	300K1P
2	12.25	300K2P
3	10.0	300K3P
4	8.66	300K4P
5	7.75	300K5P
10	5.48	300K10P
15	4.47	300K15P
25	3.46	300K25P
50	2.45	300K50P

Ohms	Max. Amps	Catalog No.
75	2.00	300K75P
100	1.73	300K100P
150	1.41	300K150P
200	1.22	300K200P
300	1.00	300K300P
400	.87	300K400P
700	.66	300K700P
900	.58	300K900P
1200	.50	300K1200P
1500	.45	300K1500P
1750	.41	300K1750P
2500	.35	300K2500P

TYPE 500K 500-WATTS

Dia. 8"—Depth behind panel 2 1/2"—Shaft 3/8" dia. Rotation 325°—Mounting for panels up to 1 1/4" by two 1/4"-20 screws (supplied). Mounting centers 1 1/2" each side of center of shaft on center line of cross-bar. Weight 4 lbs.

Ohms	Max. Amps	Catalog No.
1	22.40	500K1P
1.5	18.20	500K1.5P
2	15.80	500K2P

Ohms	Max. Amps	Catalog No.
3	12.90	500K3P
4	11.20	500K4P
5	10.00	500K5P
8	7.90	500K8P
12.5	6.30	500K12.5P
16	5.60	500K16P
25	4.47	500K25P
40	3.54	500K40P
50	3.16	500K50P
80	2.52	500K80P
125	2.00	500K125P
175	1.69	500K175P
250	1.41	500K250P
325	1.24	500K325P
500	1.00	500K500P
750	.82	500K750P
1000	.71	500K1000P
1500	.58	500K1500P
2500	.45	500K2500P

Recommended Knobs and Dial Plates

Wattage	Shaft Dia.	Knob	Dial Plate
12.5	1/8"	1910K*	M5007 *
25-150	1/4"	367-1, M5106 *	395 *
225-500	3/8"	M5104 *	M5001 *

* Described on page 102.

MR-F 3-WATT FLANGE MOUNT

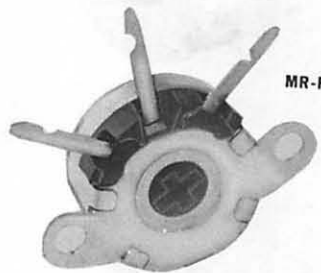
Mounting ears with .130" dia. holes on 1" center. Shafts MRS1250 or MRS1563 shown below can be inserted in control from front or rear.

Ohms Res.	Max. Amps	Catalog Number
6	.71	MR6F
15	.45	MR15F
40	.27	MR40F
75	.20	MR75F
100	.17	MR100F
150	.14	MR150F
200	.12	MR200F
250	.11	MR250F
500	.077	MR500F
600	.071	MR600F
750	.063	MR750F
1000	.055	MR1000F
1500	.045	MR1500F
2000	.039	MR2000F
2500	.035	MR2500F
3000	.032	MR3000F
4000	.027	MR4000F
5000	.024	MR5000F
10K	.017	MR10000F

SHAFTS FOR MR CONTROLS

Catalog No. MRS1250—1/4" dia. x 1 1/4" FMS knurled and slotted nylon. Plugs into either end of MR controls.

Catalog No. MRS1563—1/4" dia. x 1 9/16" FMS, knurled, slotted nylon.



Wire Wound Controls



MRC-P 3-WATT PC MOUNT

Convergence controls with printed circuit board mounting and permanent knob. Contact arm grounded.

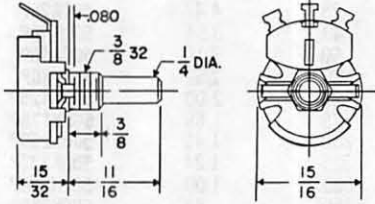
Ohms Res.	Max. Amps	Catalog Number
10	.55	MRC10P
30	.32	MRC30P
100	.17	MRC100P
120	.16	MRC120P
150	.14	MRC150P

Consult your local Mallory distributor for price information.

CONTINUED

4 WATT TYPE LW

Rated 5 watts @ 25°C; 4 watts @ 55°C. 1 5/8" cup dia. Mechanical Rotation: 300°; Electrical Rotation: 280° ± 5%; Tolerance ± 10% standard; Taper: linear; Screwdriver slotted shaft. Request Bulletin 9-673 for complete technical data.

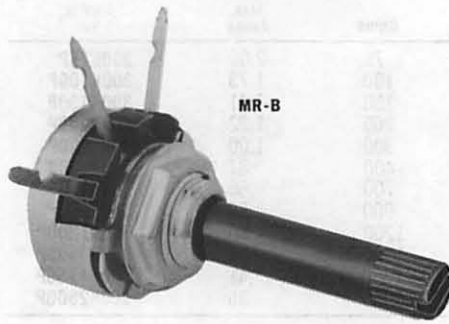


Ohms Res.	Max. Amps	Catalog Number
1	2	LW1
3	1.15	LW3
5	.89	LW5
8	.71	LW8
10	.63	LW10
20	.44	LW20
25	.40	LW25
30	.36	LW30
50	.28	LW50
75	.23	LW75
100	.2	LW100
200	.14	LW200
250	.13	LW250
400	.10	LW400
500	.089	LW500
750	.073	LW750
1K	.063	LW1K
1.5K	.051	LW1P5K
2.5K	.040	LW2P5K
5K	.028	LW5K
10K	.020	LW10K
25K	.012	LW25K

12 1/2-WATT TYPE MG

Rated 12 1/2 watts at 35°C. 1 5/8" diameter. Mech. Rotation: 294°. Elec. Rotation: 275°. Resis. Tolerance: ± 10%. Voltage Breakdown: 900 VAC rms. Bushing: 3/8"-32 x 3/8" FMS. Shaft: 1/4" dia. x 3/4" FMS, knurled with screwdriver slot. Furnished with nut.

Ohms Res.	Max. Amps	Catalog Number
3	2	MG3
10	1.1	MG10
15	.91	MG15
25	.71	MG25
50	.55	MG50
200	.25	MG200
500	.16	MG500
1000	.11	MG1000
2500	.07	MG2500
4000	.06	MG4000
5000	.05	MG5000
10K	.035	MG10K
25K	.022	MG25K



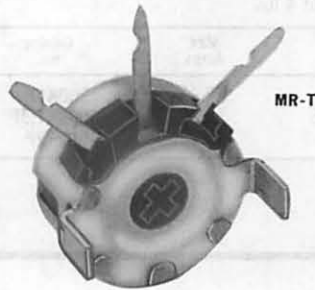
3-WATT TYPE MR WIRE-WOUND CONTROLS

Only 3/4" diameter, MR controls are used for applications in AGC, convergence, hum-balance, etc. Case is fully enclosed: MR, all metal; MRC, metal mounting plate and cup with molded nylon knob. Five mounting configurations available. Conversion from cross-slot adjustment to shaft may be made using plug-in shafts listed. Wattage Rating at 40°C: 3 watts. Rotation: 250° mechanical; 248° electrical. Resistance Tolerance: MR, ± 20%; MRC, ± 10%. Voltage Breakdown: MR, 900 VAC rms; MRC has grounded contact arm.

MR-B 3-WATT BUSHING MOUNT

Bushing 3/8"-32 x 1/4". One MRS1250 Shaft is packaged with each control. Supplied with pal nut.

Ohms Res.	Max. Amps	Catalog Number
10	.55	MR10B
50	.24	MR50B
100	.17	MR100B
250	.11	MR250B
500	.08	MR500B
1000	.055	MR1000B
2500	.035	MR2500B
5000	.024	MR5000B
10K	.017	MR10KB
15K	.014	MR15KB



MR-T 3-WATT TAB MOUNT

Shafts MRS1250 or MRS1563 shown below can be inserted in control from front or rear.

Ohms Res.	Max. Amps	Catalog Number
10	.55	MR10T
50	.24	MR50T
100	.17	MR100T
250	.11	MR250T
500	.08	MR500T
850	.059	MR850T
1000	.055	MR1000T
2500	.035	MR2500T
3000	.032	MR3000T
4000	.027	MR4000T
5000	.024	MR5000T
8000	.019	MR8000T
10K	.017	MR10KT
15K	.014	MR15KT



MR-P 3-WATT PC MOUNT

Printed circuit board mounting. Shafts MRS-1250 or MRS1563 shown below can be inserted in control from front or rear.

Ohms Res.	Max. Amps	Catalog Number
1.5	1.4	MR1.5P
15	.45	MR15P
100	.17	MR100P
175*	.13	MR175SP
600	.071	MR600P
1000	.055	MR1000P
1500	.045	MR1500P
3000	.032	MR3000P
4000	.027	MR4000P
5000	.024	MR5000P

*Stop at 60 ohms.



See page 102 for control hardware.

For prices on all products on this page, reference price sheet No. 500.

Consult your local Mallory distributor for price information.

CONTINUED →

Specifications subject to change without notice.

2-WATT TYPE C

Rated 2 watts at 40°C. 1 3/4" diameter. Mech. Rotation: 280°. Elec. Rotation: 255°. Resis. Tolerance: ±10%. Contact arm grounded. Bushing: 3/8"-32 x 3/8". Shaft: 1/4" dia. x 3/4" FMS with screwdriver slot. Furnished with nut.

Ohms Resis.	Carrying Capacity in Amps	Catalog No.
6	.58	C6P
50	.2	C50P
1K	.045	C1MP
3K	.025	C3MP

4 WATT TYPE RHEOSTATS*

Ohms Resis.	Capacity in Amps	Catalog No.
0.5	2.80	M05RK
10	.63	M10RK
15	.52	M15RK
50	.28	M50RK

*"Open" or "Off" position counterclockwise.

SWITCH FOR TYPE R POTS

Description	Catalog No.
Single Pole, Single Throw	US30

SUBMINIATURE 5 WATT TYPE VWS

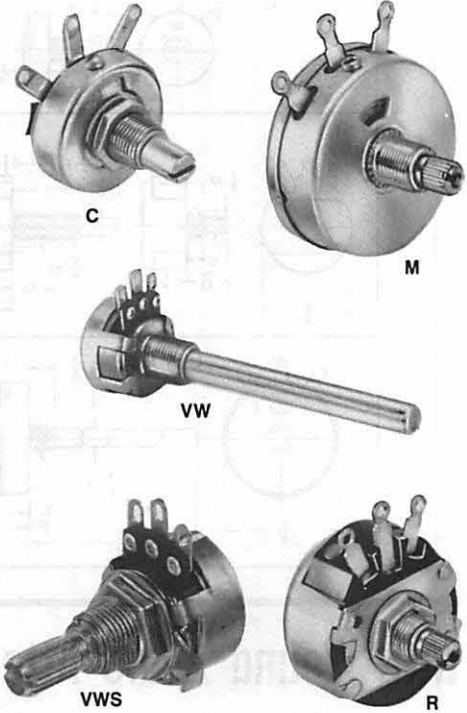
The VWS Control is identical to the VW except that the shaft is knurled and slotted and the shaft length is 7/8" FMS. Tolerance: ±10%.

Ohms Res.	Max. Amps	Catalog Number
1	2.2	VWS1
5	1.0	VWS5
8	.8	VWS8
10	.71	VWS10
20	.50	VWS20
25	.45	VWS25
30	.41	VWS30
50	.32	VWS50
60	.29	VWS60
100	.22	VWS100
200	.16	VWS200
250	.14	VWS250
300	.13	VWS300
500	.10	VWS500
600	.091	VWS600
1000	.071	VWS1K
2500	.045	VWS2P5K
5000	.032	VWS5K
7500	.026	VWS7P5K
10K	.022	VWS10K
15K	.018	VWS15K
20K	.016	VWS20K
25K	.014	VWS25K

3-WATT TYPE R

Standard TV wire-wound control rated 3 watts at 40°C. 1 3/4" diameter. Mech Rotation: 297°. Elec. Rotation: 290°. Voltage Breakdown: 900 VAC rms. Tolerance: ±10%. Bushing: 3/8"-32 x 1/4". Shaft: 1/4" dia. x 1 1/2" FMS, knurled with screwdriver slot. Furnished with nut. See list below for switch for R controls.

Ohms Res.	Max. Amps	Catalog Number
8	.61	R8L
10	.55	R10L
25	.35	R25L
50	.24	R50L
100	.17	R100L
250	.11	R250L
500	.077	R500L
1000	.055	R1000L
1500	.045	R1500L
2500	.035	R2500L
3000	.032	R3000L
5000	.024	R5000L
10000	.017	R10ML
15000	.014	R15ML



SUBMINIATURE 5-WATT TYPE VW

Rated 5 watts at 35°C. 3/4" diameter. Mech. Rotation: 305°. Elec. Rotation: 275°. Resis. Tolerance: ±10%. Voltage Breakdown: 900 VAC rms. Bushing: 3/8"-32 x 3/8". Shaft: 1/4" dia. x 2 1/2" FMS. Furnished with nut and lug.

Ohms Res.	Max. Amps	Catalog Number
1	2.2	VW1
2	1.6	VW2
3	1.3	VW3
5	1.0	VW5
8	.8	VW8
10	.71	VW10
15	.58	VW15
20	.50	VW20
25	.45	VW25
30	.41	VW30
40	.35	VW40
50	.32	VW50
75	.25	VW75
100	.22	VW100
200	.16	VW200
250	.14	VW250
300	.13	VW300
400	.11	VW400
500	.10	VW500
750	.082	VW750
1000	.071	VW1K
1500	.058	VW1P5
2000	.050	VW2K
2500	.045	VW2P5
3000	.041	VW3K
5000	.032	VW5K
7500	.026	VW7P5
10K	.022	VW10K
15K	.018	VW15K
20K	.016	VW20K
25K	.014	VW25K

**POTENTIOMETERS
4-WATT TYPE M**

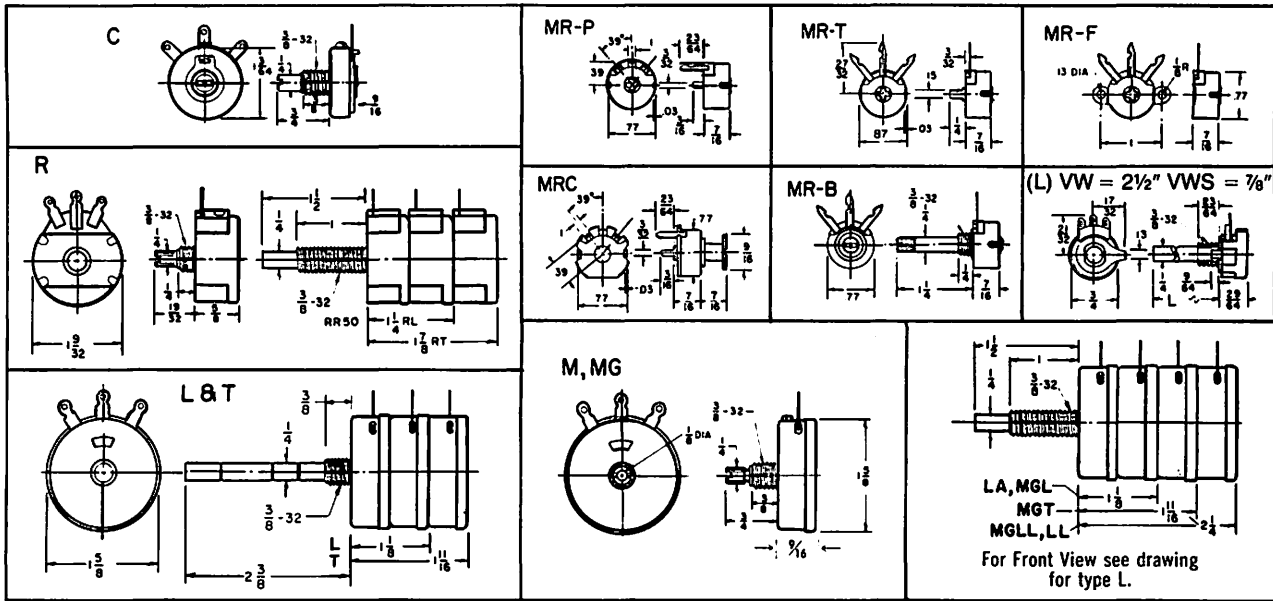
Rated 4 watts at 40°C. 1 1/2" diameter. Mech. Rotation: 294°. Elec. Rotation: 275°. Resis. Tolerance: ±10%. Voltage Breakdown: 900 VAC rms. Tolerance: ±10%. Bushing: 3/8"-32 x 3/8" FMS. Shaft: 1/4" dia. x 3/4" FMS, knurled with screwdriver slot. Furnished with nut.

Ohms Resis.	Capacity in Amps	Catalog No.
1	2.00	M1PK
6	.82	M6PK
10	.63	M10PK
20	.45	M20PK
40	.32	M40PK
50	.28	M50PK
100	.20	M100PK
200	.14	M200PK
300	.116	M300PK
500	.09	M500PK
1K	.063	M1MPK
2K	.045	M2MPK
2.5K	.04	M2.5MPK
3K	.037	M3MPK
5K	.028	M5MPK
10K	.02	M10MPK
20K	.014	M20MPK
25K	.013	M25MPK
50K	.009	M50MPK
70K	.0075	M70MPK
100K	.0062	M100MPK

*See page 102 for control hardware.

For prices on all products on this page reference price sheet No. 500.

Consult your local Mallory distributor for price information.



Wire Wound Audio Attenuators

AUDIO ATTENUATORS

Mallory audio attenuators are available in three wattage ratings: 10 watt RL & RR; 15 watts T, L, LL and BAL; and 50 watts MGL and MGT. All are made to critical audio standards; come complete with mounting hardware. Two case diameters: 1 7/64", RL & RR; 1 5/8" for T, L, LL, BAL, MGL and MGT. Shunt coil elements in L & T pads open at minimum attenuation position (full counter clockwise rotation) placing load directly across output source for maximum volume.

T PAD ATTENUATORS

Present constant impedance to both source (amplifier) and output (speaker). Supplied with palnut and dial plate.

T PAD STOCK VALUES

Imped., Ohms	Catalog No. for Audio and Rating of		
	10 W	15 W	50 W
4			
8	RT8	T8	
15-16			MGT16
50			
250			
500			
600		T600	
1000			
2000			
3000			

T PAD DIMENSIONS

With nuts, washers, and dial plate.

Bushing	Shaft D x L FMS	Catalog No.
3/8"-32 x 1"	1/4" x 1 1/2"	RT
3/8"-32 x 3/8"	1/4" x 2 3/8"	T
3/8"-32 x 1"	1/4" x 1 1/2"	MGT

STEREO LEVEL CONTROL

50 Ohm tandem dual, level control for low-priced 4- and 8-ohm stereo speakers. Rated 10 watts, audio. Supplied with nuts, washers, dial plate. Bushing 3/8"-32 x 1". Shaft 1/4" dia. x 1 1/2" lg.

Catalog No. RR50.

*See page 102 for control hardware.

L PAD ATTENUATORS

Present constant impedance to source (amplifier) used in audio circuits where output (speaker) impedance is not critical. Supplied with palnut and dial plate.

L PAD STOCK VALUES

Imped., Ohms	Catalog No. for Audio Rating of		
	10 W	15 W	50 W
4		L4	
4		L4A	
8		L8	
8	RL8	L8A	MGL8
15		L15	
16			MGL16
50		L50	
100		L100	
250			
500		L500	
600		L600	
1000			
2000		L2000	
3000			
4000		L4000	

L PAD DIMENSIONS

With nut, washer, and dial plate.

Bushing	Shaft D x L FMS	Catalog No.
3/8"-32 x 1"	1/4" x 1 1/2"	RL
3/8"-32 x 3/8"	1/4" x 2 3/8"	L
3/8"-32 x 1"	1/4" x 1 1/2"	L-A
3/8"-32 x 1"	1/4" x 1 1/2"	MGL

LL PAD ATTENUATORS

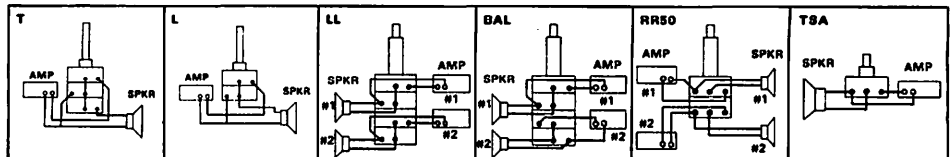
Two L pads in tandem for stereo level control. Bushings 3/8"-32 x 1". Shaft 1/4" dia. x 1 1/2" lg. With nuts, washers and deluxe "Level" dial plate supplied.

Imped., Ohms	Audio Watts	Catalog No.
4	15	LL4
8	15	LL8
16	15	LL16
8	50	MGLL8

THEATRE SPEAKER CONTROL

Engineered for outdoor movie speakers. Rated 8 watts, audio. Bushing 3/8"-32 x 3/8". Shaft 1/4" dia. x 3/4" lg. With nut.

Description	Catalog No.
35-ohm pot	TSA35



For prices on all products on this page reference price sheet No. 500.

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

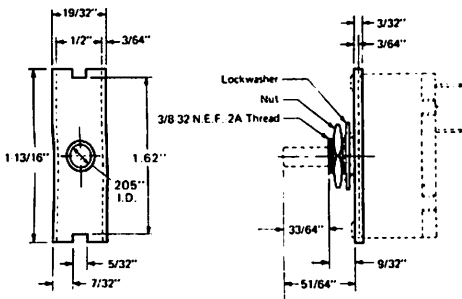
CIRCUIT BREAKERS

Exact replacement circuit breakers for television and industrial applications. These circuit breakers are manufactured to the same specifications as original equipment. "Anti-cheat" reset action is non-cycling. Button must be pressed to reset. Tripping mechanism is temperature compensating for constant protection. Normal tripping time is ten seconds or less. Supplied with twist tab mounting lugs. May be converted to bushing mount by ordering CBB $\frac{3}{8}$ "-32 x $\frac{1}{4}$ " adapter bushing listed below. For prices, reference price sheet No. 402.

U/L CIRCUIT BREAKER KIT

Contents	Catalog No.
(4) UL350	ULB2
(4) UL438	
(4) UL613	
One each of above UL types (Total of 11 pieces)	ULB3

Catalog No. CBB Adapter Bushing — Adapts U/L types to bushing mounting. Bushing: $\frac{3}{8}$ "-32 x $\frac{1}{4}$ " with nut.



U/L APPROVED CIRCUIT BREAKERS

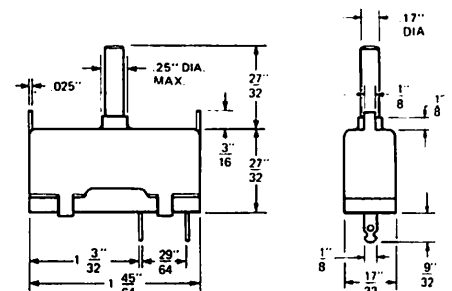
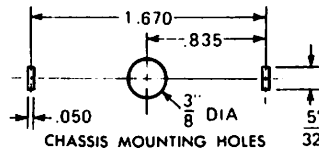
Catalog Number	Hold Amps	Break Amps	Surge Amps	Littelfuse Equivalent
UL0875	.49	.86	6	815.650
UL105	.60	1.05	6	815.800
UL175	1.0	1.75	15	81501.5
UL219	1.2	2.1	35	8151.75
UL263	1.5	2.63	50	8152.25
UL306	1.65	2.89	50	81502.5
UL350	1.92	3.3	50	8152.75
UL394	2.2	3.85	50	8153.25
UL438*	2.5	4.37	50	815004
UL525*	3.0	5.25	50	81504.5
UL613	3.25	5.68	50	815005

*We have improved the surge ratings on our standard circuit breaker. The ratings are now comparable to the high surge circuit breakers previously offered by Mallory.

DUAL CIRCUIT BREAKERS

For use in color TV; supplies protection for B+ circuits and horizontal output circuit. Excessive current in either circuit will open the circuit breaker, thus removing all B+ voltage from set. Positive dependable, exact duplicate of RCA and many others.

Current, Amps				Catalog Number
B+ Section		Horiz. Hold		
Break	Hold	Break	Hold	
1.6	1.3	0.6	0.375	DB130T038
1.2	.9	.48	.325	DB900T325
1.35	.95	.59	.4	DB950T400
1.75	1.25	.8	.6	DB125T600
2.5	1.75	.59	.4	DB175T400



For prices, refer to price sheet No. 402.

Ceramic Filters

A ceramic filter derives its basic frequency selectivity from a mechanical vibration resulting from a piezoelectric effect in the ceramic material. Specialized high quality ceramic materials combined with an advanced filter design has provided practical inexpensive ceramic filters for entertainment and communications applications. These applications are in AM radio, TV, FM and CB communications systems.

For prices, refer to price sheet No. 505.

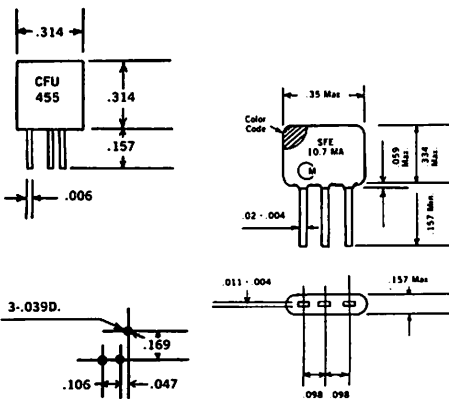
455KHz FILTERS
PART NUMBERS AND CHARACTERISTICS ARE AS FOLLOWS:

Center Frequency (KHz)	6DB Band Width (KHz) min	40DB Band Width (KHz) min	Spurious Response (DB) min	Insertion Loss (DB) max	In, Output Impedance	Cat. No.
455 ± 1.5	±7.5	±15	27	6	1500	CFU455E2
455 ± 1	±3	±9	25	6	2000	CFU455H2

10.7 MHz FILTER

Center Frequency	3DB Band Width KHz	20DB Band Width KHz max	Insertion Loss	Spurious Response 8 ~ 12 MHz	Input/Output Impedance	Cat. No.
10.7MHz ±30KHz	280 ±50	650	6DB max	30DB min	330 ohms	SFE10.7MA5A

Consult your local Mallory distributor for price information.



Power Resistors



TYPE AE WIRE-WOUND RESISTORS AXIAL LEAD VITREOUS ENAMEL COATED

Mallory type AE wire-wound resistors have axial leads and a tough vitreous enamel coating. Available in three power ratings: 3, 5 and 10 watts. To order: use type number followed by resistance value (e.g., 3AE4000). Tolerance: $\pm 5\%$. For prices on all power resistors, reference price sheet No. 600.

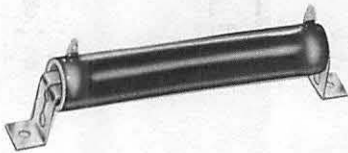
	Ohms								
3-WATT TYPE 3AE	1.0	15	39	120	300	600	1500	3900	8000
	1.5	18	40	125	330	680	1800	4000	9000
	2.0	20	47	150	350	750	2000	4500	10,000
	3.0	22	50	180	390	800	2200	4700	
	4.0	25	56	200	400	820	2500	5000	
	5.0	27	68	220	450	900	2700	6000	
	7.5	30	75	225	470	1000	3000	6800	
	10	33	82	250	500	1100	3300	7000	
12	35	100	270	560	1200	3500	7500		
5-WATT TYPE 5AE	1.0	15	47	180	400	900	2700	6000	
	1.5	20	50	200	450	1000	3000	6800	
	2.0	22	56	220	470	1100	3300	7000	
	3.0	25	68	225	500	1200	3500	7500	
	4.0	27	75	250	560	1500	3900	8000	
	5.0	30	82	270	600	1800	4000	9000	
	7.5	33	100	300	750	2000	4500	10,000	
	10	35	125	330	800	2200	4700	12,000	
12	40	150	350	820	2500	5000	20,000		

	Ohms								
10-WATT TYPE 10AE	1.0	18	47	180	400	1100	3500	9000	50,000
	1.5	20	50	200	450	1200	4000	10,000	
	2.0	22	56	220	500	1500	4500	12,000	
	3.0	25	68	225	600	1750	4700	13,000	
	4.0	27	75	250	680	1800	5000	15,000	
	5.0	30	82	270	750	2000	5600	20,000	
	7.5	33	100	300	800	2200	6000	25,000	
	10	35	120	330	820	2500	7000	30,000	
	12	39	125	350	900	3000	7500	35,000	
	15	40	150	390	1000	3300	8000	40,000	

TYPE AE RESISTOR SIZES

Diameter	Length	Lead	Catalog No.
1/4"	9/16"	#20	3AE
1/4"	1"	#20	5AE
11/32"	1 1/16"	#20	10AE

FIXED VITREOUS TYPE HHJ AND HJ RESISTORS



Features

- Rugged Vitreous Enamel Coating
- Welded Construction
- Terminals Suitable for Soldering or Bolt Connections
- Wide Choice of Physical Size and Wattage Combinations

MOUNTING FEET

Fits Type	Old Catalog No.	New Catalog No.
8, 12 watt	30V	5
20 watt	32V	7
25, 50 watt	31V	9
100 watt	33V	12
175, 225 watt	35V	18

ADJUSTABLE CLIPS

Fits Type	Old Catalog No.	New Catalog No.
1AV	1V	2115
2AV, 5AV	3V	2121
10AV	4V	2125
16AV, 20AV	6V	2133

	Ohms								
8-WATTS TYPE HHJ	1.0	10	40	200	450	900	2000	4500	9000
	1.5	15	50	225	500	1000	2250	5000	10,000
	2.0	20	75	250	600	1100	2500	6000	12,500
	3.0	25	100	300	700	1200	3000	7000	15,000
	4.0	30	125	350	750	1250	3500	7500	20,000
	5.0	35	150	400	800	1500	4000	8000	25,000
	7.5								
		0.5*	10	50	300	800	2000	6000	12,500	30,000
12-WATT TYPE 1HJ	1.0	12	75	350	900	2250	7000	13,500	35,000
	1.5	15	100	400	1000	2500	7500	15,000	40,000
	2.0	20	125	450	1100	3000	8000	16,000	45,000
	3.0	25	150	500	1200	3500	8500	18,000	50,000
	4.0	30	200	600	1250	4000	9000	20,000	
	5.0	35	225	700	1500	4500	10,000	22,500	
	7.5	40	250	750	1750	5000	11,000	25,000	
20-WATT TYPE 2HJ	1.0	25	200	500	1200	2500	5000	10,000	50,000
	2.0	50	250	650	1250	2750	6000	12,500	100,000
	3.0	75	300	700	1500	3000	7000	15,000	
	5.0	100	350	750	1750	3500	7500	25,000	
	10	150	400	1000	2000	4000	8000	40,000	
25-WATT TYPE 2.5HJ	1.0	5.0	50	200	800	2500	6000	15,000	50,000
	2.0	10	75	250	1000	3000	7500	20,000	100,000
	3.0	15	100	500	1500	4000	10,000	25,000	
	4.0	25	150	750	2000	5000	12,000	40,000	
50-WATT TYPE 5HJ	1.0	5.0	75	200	750	2000	4000	8000	25,000
	2.0	10	100	250	1000	2500	5000	10,000	50,000
	3.0	25	150	500	1500	3000	7500	15,000	100,000
	4.0	50							
100-WATT TYPE 10HJ	1.0	5.0	50	150	1000	3000	50,000		
	2.0	10	75	250	1500	10,000	100,000		
	4.0	25	100	500	2000	20,000			
175-WATT TYPE 16HJ	1.0	10	50	100	250	500	1000	3000	100,000
	5.0	25							
225-WATT TYPE 20HJ	1.0	5.0	50	150	1000	2500	10,000	30,000	50,000
	2.0	10	75	250	1500	3000	20,000	40,000	100,000
	4.0	25	100	500	2000	5000	25,000		

*Tolerance, $\pm 10\%$; all others, $\pm 5\%$. Vitreous enamel-coated, wirewound resistors. Packaged products furnished with complete hardware except HHJ, 1HJ and 2HJ which have wire leads. Bulk stock supplied less hardware. To Order: Use type number followed by resistance value e.g., HHJ4000.

Consult your local Mallory distributor for price information.

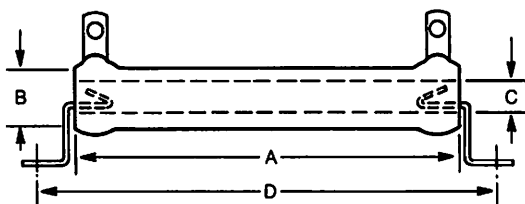
CONTINUED

Specifications subject to change without notice.

ADJUSTABLE VITREOUS TYPE AV RESISTORS

	Ohms								
10-WATT TYPE 1AV	1.0	10	75	250	500	1250	2500	4500	8000
	2.0	15	100	300	600	1500	3000	5000	8500
	3.0	20	150	350	750	2000	3500	7000	9000
	5.0	25	200	400	1000	2250	4000	7500	10,000
	7.5	50							
25-WATT TYPE 2AV	1.0	7.5	25	150	400	1250	3000	7500	20,000
	2.0	10	50	200	500	1500	4000	10,000	25,000
	3.0	15	75	250	750	2000	5000	12,000	
	5.0	20	100	300	1000	2500	6000	15,000	
50-WATT TYPE 5AV	1.0	10	100	300	1000	3000	7500	20,000	40,000
	2.0	25	150	400	1500	4000	10,000	25,000	50,000
	3.0	50	200	500	2000	5000	15,000	30,000	100,000
	5.0	75	250	750	2500				
100-WATT TYPE 10AV	1.0	4.0	25	250	1500	10,000	25,000	50,000	
	2.0	5.0	50	500	2500	15,000	30,000	75,000	
	3.0	10	100	1000	5,000	20,000	40,000	100,000	
225-WATT TYPE 20AV	1.0	3.0	10	50	250	1000	2500	10,000	30,000
	2.0	5.0	25	100	500	1500	5000	25,000	100,000

Tolerance $\pm 10\%$; Packaged products supplied with feet and one strap; Bulk shipments supplied less feet;

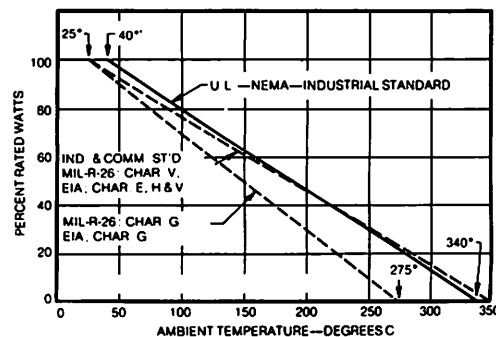


Catalog Number	Dimensions				Hardware			
	A	See Figure 1 All Dimensions In Inches			Mounting Feet		Adjustment Lug	
		B	C	D	New Catalog Number	Old Catalog Number	New Catalog Number	Old Catalog Number
HKJ	1.0	.313	.188	1.44	5	30V	—	—
1HJ	1.75	.313	.188	2.19	5	30V	—	—
1AV	1.75	.313	.188	2.19	5	30V	2115	1V
2HJ	2.0	.438	.250	2.50	7	32V	—	—
2AV	2.0	.562	.313	2.75	9	31V	2121	3V
2.5HJ	2.0	.562	.313	2.75	9	31V	—	—
5HJ	4.0	.562	.313	4.75	9	31V	—	—
5AV	4.0	.562	.313	4.75	9	31V	2121	3V
10HJ	6.5	.750	.50	7.38	12	33V	—	—
10AV	6.5	.750	.50	7.38	12	33V	2125	4V
16HJ	8.5	1.25	.75	9.38	18	35V	—	—
16AV	8.5	1.25	.75	9.38	18	35V	2133	6V
20HJ	10.5	1.25	.75	11.38	18	35V	—	—
20AV	10.5	1.25	.75	11.38	18	35V	2133	6V

Specifications

- Tolerance $\pm 5\%$ HJ, $\pm 10\%$ AV
- Temperature Coefficient
 0 ± 400 ppm/ $^{\circ}$ C 1 ohm to 20 ohms.
 0 ± 260 ppm/ $^{\circ}$ C above 20 ohms.
- Dielectric Withstanding Voltage
 Measured from terminal to mounting bracket
 12 to 100 watts size, 1000 volts AC.
 175 and 225 watts size, 3000 volts AC.
- Overload 10 times rated wattage for 5 sec.
- Core Tubular ceramic.
- Coating Vitreous Enamel.

Derating



Consult your local Mallory distributor for price information.

•DIP Switches



- Designed for automatic insertion
- Contact wiping on make and break
- Integral terminal and contact locked into thermoset base
- Sealed version optional; assures contaminant-free switch operation after flow soldering and cleaning
- Types 206-2 thru-10 & -12 approved to MIL-S-83504/4
- Standard .100" by .300" DIP centers
- Available with flush actuators for low profile SPST applications
- Gold plated contacts for long term contact corrosion resistance
- All U.L. 94 V-0 plastics used

ELECTRICAL AND MECHANICAL SPECIFICATIONS

<p>Initial Contact Resistance 25 milliohms</p> <p>Contact Resistance After Life 50 milliohms maximum after 10,000 cycles switching 50 mA @ 24 VDC</p> <p>Nonswitching Rating 100 mA @ 50 VDC</p> <p>Insulation Resistance Across open switch—1×10^9 ohms minimum Between adjacent closed switches—1×10^9 ohms minimum</p> <p>Dielectric Breakdown Voltage Between adjacent switches—500 VDC minimum</p>	<p>Switch Capacitance Between adjacent switches—5.0 pf maximum</p> <p>Shock No mechanical damage or changes of switch settings with 25 G applied</p> <p>Vibration No mechanical damage or changes of switch settings during or after testing, when tested in three mutually perpendicular planes at 10-50 Hz sweep or at 60 Hz constant vibration.</p>
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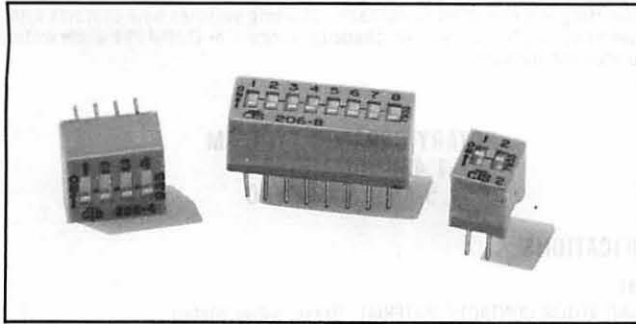
DIP SWITCH — CROSS REFERENCE GUIDE

MALLORY	AMP	SAE	MOLEX	GRAYHILL	CONTROL SWITCH	EECO
206-2 SPST	2-435166-9	1002		76B02	SL1002	240002G
206-3 SPST	3-435166-0	1003		76B03	SL1003	240003G
206-4 SPST	435166-2	1004	A-10040-004	76AB04	SL1004	240004G
206-5 SPST	435166-3	1005	A-10040-005	76AB05	SL1005	240005G
206-6 SPST	435166-4	1006	A-10040-006	76AB06	SL1006	240006G
206-7 SPST	435166-1	1007	A-10040-007	76AB07	SL1007	240007G
206-8 SPST	435166-5	1008	A-10040-008	76AB08	SL1008	240008G
206-9 SPST	435166-6	1009	A-10040-009	76AB09	SL1009	240009G
206-10 SPST	435166-7	1010	A-10040-010	76AB10	SL1010	270010G

•NEW PRODUCT

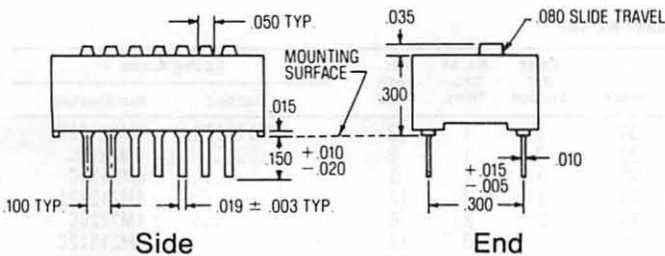
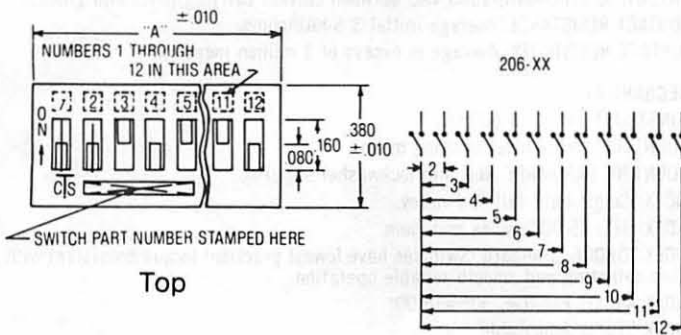
Consult your local Mallory distributor for price information.

CONTINUED →



SPST switches can be supplied with either low profile actuators (actuators flush with the top of the switch housing) or with extended actuators. The low profile switches are available both sealed and taped or unsealed and without tape. The sealed and taped version are listed below and are available from stock. Switches without tape and sealing can be ordered special by leaving off the "ST" suffix on low profile actuator numbers shown below. See Bulletin 9-776 for information on Extended Actuator and Multi-Pole DIP Switches.

SPST

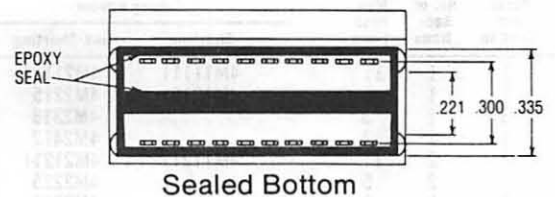
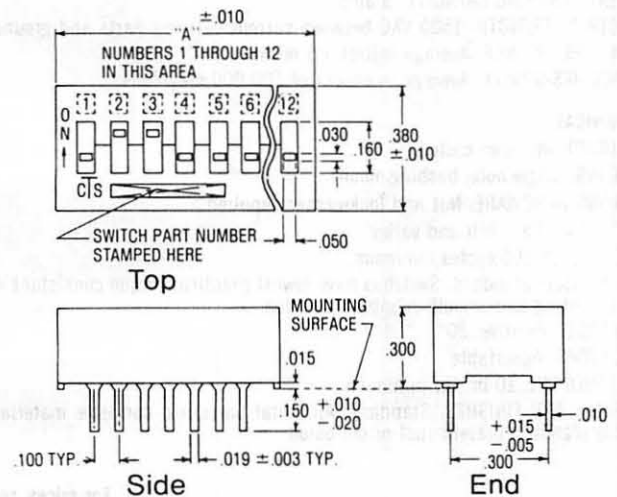


ORDERING INFORMATION

SPST SWITCHES		
"A" OVERALL DIMENSION	NUMBER OF SWITCH SECTIONS	PART NUMBER
.286	2	206-2
.386	3	206-3
.486	4	206-4
.586	5	206-5
.686	6	206-6
.786	7	206-7
.886	8	206-8
.986	9	206-9
1.086	10	206-10
1.286	12	206-12

SPDT

Low Profile Actuators



ORDERING INFORMATION

SPST — LOW PROFILE SEALED AND TAPED ACTUATORS		
"A" OVERALL DIMENSION	NUMBER OF SWITCH SECTIONS	PART NUMBER
.286	2	206-2LPST
.386	3	206-3LPST
.486	4	206-4LPST
.586	5	206-5LPST
.686	6	206-6LPST
.786	7	206-7LPST
.886	8	206-8LPST
.986	9	206-9LPST
1.086	10	206-10LPST
1.286	12	206-12LPST

See Bulletin 9-776 for information on Extended Actuator and Multi-Pole DIP Switches.

Consult your local Mallory distributor for price information.

•NEW PRODUCT

CONTINUED →

Specifications subject to change without notice.

Mallory switches are available in two types: Rotary and lever-action. Most styles are supplied in shorting and non-shorting contacts. Shorting switches have contacts with "make" before "break". Contacts in non-shorting switches are "break" before "make". These switches may be chosen with phenolic, ceramic or Diallyl Phthalate wafer materials. Switches are supplied with normal mounting hardware. Knobs not included. Dial plates not included.

ROTARY PHENOLIC TYPE 4M 1.437" DIAMETER 1.5 AMP @ 28 VDC

SPECIFICATIONS

GENERAL

CLIPS AND ROTOR CONTACTS MATERIAL: Brass, silver plated.
INSULATION MATERIAL: Phenolic. Standard NEMA XXXP.

ELECTRICAL

CURRENT AND VOLTAGE RATING: Make and break resistive load 1.5 amp @ 28 VDC, 0.23 amp @ 115 VAC.
CURRENT CARRYING CAPACITY: 9 amp.
DIELECTRIC STRENGTH: 1500 VAC between current carrying parts and ground.
CONTACT RESISTANCE: Average initial 3.5 milliohms.
SURFACE RESISTIVITY: Average in excess of 500,000 megohms

MECHANICAL

CONSTRUCTION: Open bolted.
MOUNTING: Single hole, bushing mount.
MOUNTING HARDWARE: Nut and lockwasher supplied.
INDEX: Single-ball, hill and valley.
INDEX LIFE: 25,000 cycles minimum.
INDEX TORQUE: Standard. Switches have lowest practical torque consistent with crisp detenting and smooth reliable operation.
INDEX ANGLE: Positive, 30°
INDEX STOPS: Adjustable
STOP STRENGTH: 10 in. lb. minimum.
MATERIALS AND FINISHES: Standard. All metal parts non-corrosive material or suitably plated to prevent rust or corrosion.

ROTARY CERAMIC TYPE 4M 1.469" DIAMETER 1.5 AMP @ 28 VDC

SPECIFICATIONS

GENERAL

CLIPS AND ROTOR CONTACTS MATERIAL: Brass, silver plated.
INSULATION MATERIAL: Ceramic, MIL-1-10A, Grade L-422.

ELECTRICAL

CURRENT AND VOLTAGE RATING: Make and break resistive load 1.5 amp @ 28 VDC, 0.23 amp @ 115 VAC.
CURRENT CARRYING CAPACITY: 9 amp.
DIELECTRIC STRENGTH: 1500 VAC between current carrying parts and ground.
CONTACT RESISTANCE: Average initial 3.5 milliohms.
SURFACE RESISTIVITY: Average in excess of 1 million megohms.

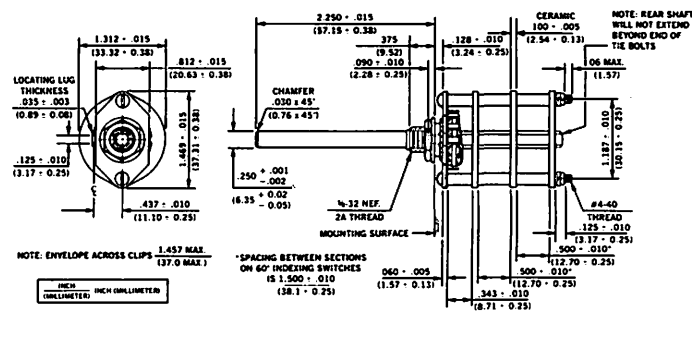
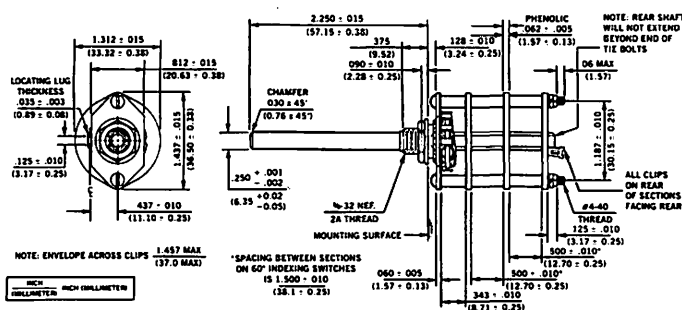
MECHANICAL

CONSTRUCTION: Open bolted.
MOUNTING: Single hole, bushing mount.
MOUNTING HARDWARE: Nut and lockwasher supplied.
INDEX: Single-ball, hill and valley.
INDEX LIFE: 25,000 cycles minimum.
INDEX TORQUE: Standard. Switches have lowest practical torque consistent with crisp detenting and smooth reliable operation.
INDEX ANGLE: Positive, 30° and 90°.
INDEX STOPS: Adjustable.
STOP STRENGTH: 10 in. lb. minimum.
MATERIALS AND FINISHES: Standard. All metal parts non-corrosive material or suitably plated to prevent rust or corrosion.

For prices, reference price sheet No. 400.

Index	Poles per Section	No. of Sections	Max. Positions	Catalog Number	
				Shorting	Non-Shorting
30°	1	1	11	4M11111	4M21111
30°	2	1	5	4M1215	4M2215
30°	3	1	3	.....	4M2313
30°	4	1	2	.....	4M2412
30°	1	2	11	4M11211	4M21211
30°	2	2	5	.....	4M2225
30°	3	2	3	.....	4M2323
30°	1	3	11	.....	4M21311
30°	1	4	11	.....	4M21411
30°	2	4	5	.....	4M2245
30°	1	5	11	.....	4M21511

Index	Poles per Section	No. of Sections	Max. Positions	Catalog Number	
				Shorting	Non-Shorting
30°	1	1	12	4M11112C	4M21112C
30°	2	1	6	.....	4M2216C
30°	5	1	3	.....	4M2513C
30°	1	2	12	.....	4M21212C
30°	2	2	6	.....	4M2226C
30°	1	3	12	.....	4M21312C



See page 102 for switch hardware.

Consult your local Mallory distributor for price information.

CONTINUED

Specifications subject to change without notice.

GENERAL PURPOSE ROTARY SWITCHES 3000 SERIES

Single section with formed cup enclosing contacts.

SPECIFICATIONS:

TERMINALS: Silver plated high quality non-ferrous material. Ground rings silver plated brass. Rotor silver plated copper alloy.

CONTACT RESISTANCE: — Less than .010 OHMS. Will not increase more than 50% throughout life of switch.

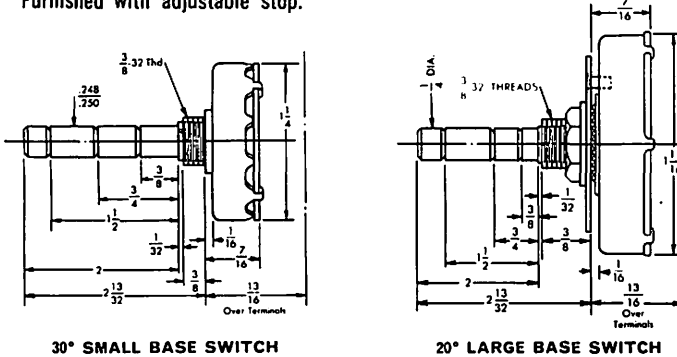
DIELECTRIC STRENGTH: — Will withstand 500 WVDC or WVAC RMS. High grade phenolic used for wafer material.

ELECTRICAL RATINGS:

300 VDC	.2 AMP	300 VAC	.25 AMP
100 VDC	.4 AMP	100 VAC	.5 AMP
50 VDC	1 AMP	50 VAC	1 AMP
25 VDC	2 AMP	25 VAC	2 AMP
12 VDC	4 AMP	12 VAC	4 AMP
6 VDC	5 AMP	6 VAC	6 AMP

Index	No. of Poles	Max. Positions	Base Dia., In.	Catalog Number	
				Shorting	Non-Shorting
30°	1	5	1 1/4		3215J
30°	1	12	1 1/4	31112J	32112J
30°	2	2	1 1/4		3222J
30°	2	3	1 1/4	3123J	3223J
30°	2	6	1 1/4	3126J	3226J
30°	3	4	1 1/4	3134J	3234J
30°	4	2	1 1/4		3242J
30°	4	3	1 1/4		3243J
20°	1	17*	1 11/16		32117J*
20°	2	9*	1 11/16	3129J*	3229J*
20°	3	6*	1 11/16	3136J*	3236J*
20°	6	3*	1 11/16		3263J*

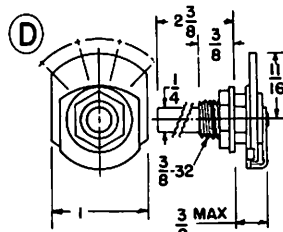
* Furnished with adjustable stop.



MINIATURE SPECIAL PURPOSE (FIG. D)

For tone control, radio-phono use, etc. Suffix indicates: S, spring return (no knob supplied).

Index	Poles per Section	No. of Sections	Max. Positions	Dia. Max. "D"	Catalog Number	
					Shorting	Non-Shorting
30°	1	1	2	.860	5M1112	.....
30°	1	1	3	1.260	5M1113	.....
30°	2	1	3	1.472	.....	5M2213



See page 102 for switch hardware.

Consult your local Mallory distributor for price information.

**TYPE 12M
1.000" DIAMETER
0.55 AMP @ 28 VDC**

SPECIFICATIONS

GENERAL

CLIPS AND ROTOR CONTACTS MATERIAL: Brass, silver plated.

INSULATION MATERIAL: Diallyl Phthalate, IAW, MIL-M-14F. Type SDG.

ELECTRICAL

CURRENT AND VOLTAGE RATING: Make and break resistive load 0.55 amp @ 28 VDC, 0.17 amp @ 115 VAC.

CURRENT CARRYING CAPACITY: 7 amp.

DIELECTRIC STRENGTH: 750 VAC between current carrying parts and ground.

CONTACT RESISTANCE: Average initial 5.0 milliohms.

SURFACE RESISTIVITY: Average in excess of 900,000 megohms.

MECHANICAL

CONSTRUCTION: Open bolted.

MOUNTING: Single hole, bushing mount.

MOUNTING HARDWARE: Nut and lockwasher supplied.

INDEX: Dual-ball, side thrust.

INDEX LIFE: 50,000 cycles minimum.

INDEX TORQUE: Standard. Switches have lowest practical torque consistent with crisp detenting and smooth reliable operation.

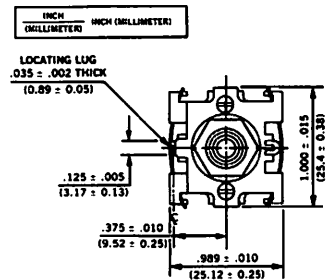
INDEX ANGLE: Positive 30°.

INDEX STOPS: Adjustable.

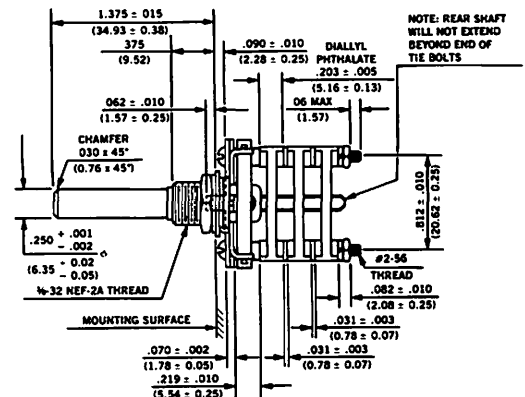
STOP STRENGTH: 10 in. lb. minimum.

MATERIALS AND FINISHES: Standard. All metal parts non-corrosive material or suitably plated to prevent rust or corrosion.

Index	Poles per Section	No. of Sections	Max. Positions	Catalog Number
				Non-Shorting
30°	1	1	11	12M2111G
30°	1	2	11	12M2121G
30°	1	1	3	12M2313G



NOTE: ENVELOPE ACROSS CLIPS 1.112" MAX. (28.24)



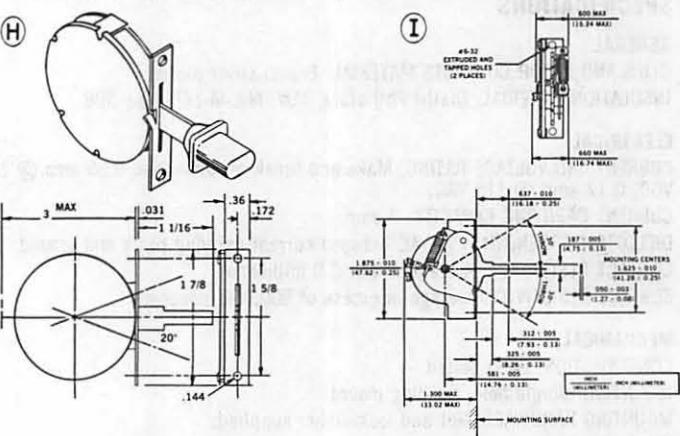
For prices, reference price sheet No. 400.

CONTINUED

Specifications subject to change without notice.

LEVER ACTION SWITCHES

Mallory lever action switches utilize MIL grade phenolic or glass-epoxy for wafer materials. Three wafer sizes available with a variety of circuits and actions. Supplied with mounting screws and knob.



STANDARD 1 1/4" DIA. PHENOLIC (FIG. H 6000 SERIES)

Rated 0.2 amp at 300 VDC; 5 amps, 6 VDC; 0.25 amp, 300 VAC; 6 amps, 6 VAC, Positive action. Breakdown, 500 VAC/DC rms. Max. non-breaking resistive load. 5 amps.

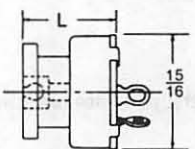
Index	Number of Poles	Number of Positions	Size		Catalog Number	
			A	B	Shorting	Non-Shorting
20°	2	4	2 11/16	2 15/16	5124	
20°	4	3	1 7/8	1 5/8		6243

MINIATURE 1 3/8" DIA. PHENOLIC (FIG. I)

Rated 350 mA at 500 VAC rms resistive. Breakdown, 1000 VAC rms, 60 cps. Suffix indicates action (e.g., 6M1213S): S, spring return to center; U, spring return to one side, positive opposite; no suffix; positive action.

30°	2	3		6M1213	6M2213
30°	2	3		.....	6M2213S
30°	2	3		6M1213U	.....
30°	4	2		.....	6M2412
30°	4	2		.....	6M2412S

Refer to price sheet No. 400 for all products on this page.



ROTARY AC SWITCH

Heavy-duty AC line switch with integral 3/8"-32 x 3/8" bushing and 1/4" dia. shaft. For use in equipment carrying up to 6 amps. (SPST). Switch action is 26°. U/L Recognized. Furnished with hex nuts, washer and 366-1 knob.

Mallory No. RAC10 (SPST)

PUSH-PULL AC SWITCHES

Attractive push-pull AC line switches are furnished with integral aluminum alloy handle to complement the finest electronic equipment. Heavy duty, U/L Approved. PPS1, PPS2 rated 6 amps at 125 VAC. Furnished with a nickel-plated knurled ring out.

Mallory No. PPS1 (SPST)

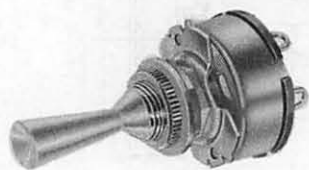
Mallory No. PPS2 (DPST)

MODEL KR8M AND MODEL KR9M PUSH-PULL REPLACEMENT AC SWITCHES

Excellent replacement for push-pull AC switch sections of original equipment, single and dual controls. Rated 6 amps, 125 volts; sufficient for color set operations. Special "O" ring construction assures long life. Easy to replace, often without removing control from set. KR9M designed for higher surge current application of newer TV sets. Same basic appearance as KR8M. Switches not interchangeable.

KR8M—L dimension 3/4"
KR9M—L dimension 5/8"

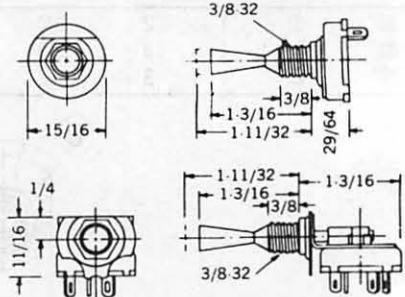
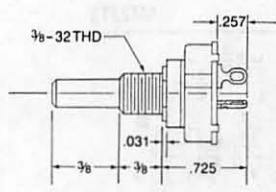
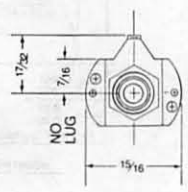
Both supplied with U.L. approved flame proof backs.



SPECIAL SWITCH

Original replacement SPST push-push switch used on the rear of controls in Curtis Mathes and other television sets. Catalog number SP1 5 amp, 125 VAC.

See page 102 for switch hardware.



PUSH-PULL AC SWITCH DIMENSIONS

Consult your local Mallory distributor for price information.

PRINTED CIRCUIT BOARD DIP SOCKETS:

Available in from 8 thru 40 contacts. The tin alloy plated contacts incorporate a patented high pressure contact (when mated with pin being inserted) which remove surface oxides and seals out potential oxidation that occur in looser fitting contacts. This feature assures, essentially, the same contact resistance as gold without the use of gold. For applications calling for gold plated contacts we offer the P-110 series shown below. Consistent performance is assured over the continuous operating temperature, see Performance Characteristics below. Will accommodate I.C. packages having any type finish — even unplated if resistance requirements will permit.

Low profile design — compact body provides maximum utilization of the available P.C. board area with a profile height of only .175 maximum.

The body is a thermoplastic polyester, glass reinforced black color. Flammability rating: UL94V-0.

Terminal contact material and plating is as follows:

- P-11 Copper alloy, tin alloy pre-plated
- P-108 Beryllium copper, tin alloy post-plated
- P-110 Beryllium copper, 30 microinches minimum of gold over 75 microinches of nickel
- P-112 Beryllium copper, tin lead alloy post-plated

Performance Characteristics:

Contact Resistance:

- 20 milliohms maximum, type P-108
- 30 milliohms maximum, types P-11, P-110, P-112

Test current: 1 ampere

Operating temperature continuous:

- P-11 -40°C to +75°C
- P-108 -40°C to +105°C
- P-110 -40°C to +125°C
- P-112 -40°C to +105°C

Insulation Resistance (500VDC): 100,000 megohms minimum

Dielectric Withstanding Voltage: 1000 volts AC rms minimum

Durability: 50 cycles — no electrical degradation

Thermal Shock: MIL-STD-1344, Method 1003, Condition B. No physical or electrical degradation

Moisture Resistance: MIL-STD-202, Method 106, except omit steps 7a and 7b, 300 megohms minimum

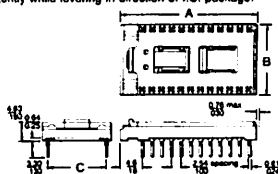
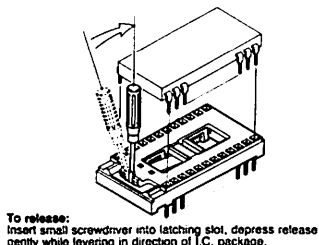
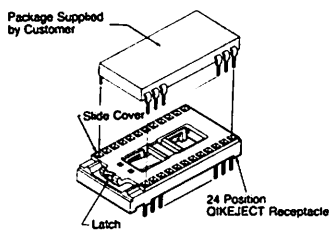
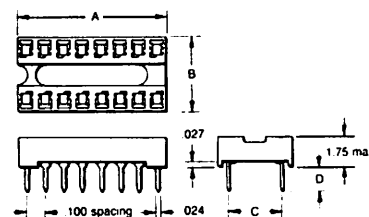
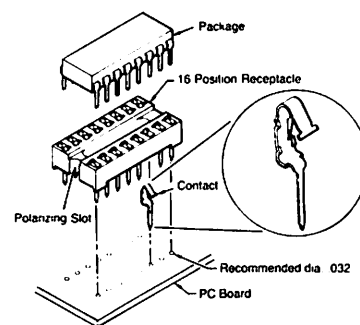
Vibration: MIL-STD-1344, Method 2005, Condition 111. No electrical interruption greater than 1 microsecond

Mechanical Shock: MIL-STD-202, Method 213, Condition 1. No electrical interruption greater than 1 microsecond.

Performance Characteristics conform to requirements of MIL-S-83734A.

*Tin Alloy Catalog Number	†Tin Alloy Catalog Number	†Gold Catalog Number	†Tin/Lead Catalog Number	Number of Contacts	Dimensions Inches			
					A	Max	C ±.010	D ±.010
DILB8P-11	DILB8P-108	DILB8P-110 M83734/2-013	DILB8P-112 M83734/2-015	8	.400	.400	.300	.130
DILB14P-11	DILB14P-108	DILB14P-110 M83734/3-013	DILB14P-112 M83734/3-015	14	.700	.400	.300	.130
DILB16P-11	DILB16P-108	DILB16P-110 M83734/4-013	DILB16P-112 M83734/4-015	16	.800	.400	.300	.130
DILB18P-11	DILB18P-108	DILB18P-110 M83734/5-013	DILB18P-112 M83734/5-015	18	.900	.400	.300	.130
DILB20P-11	DILB20P-108	DILB20P-110 M83734/13-013	DILB20P-112 M83734/13-015	20	1.000	.400	.300	.130
DILB22P-11	DILB22P-108	DILB22P-110 M83734/6-013	DILB22P-112 M83734/6-015	22	1.100	.500	.400	.130
DILB24P-11	DILB24P-108	DILB24P-110 M83734/8-013	DILB24P-112 M83734/8-015	24	1.200	.700	.600	.130
DILB28P-11	DILB28P-108	DILB28P-110 M83734/7-013	DILB28P-112 M83734/7-015	28	1.400	.700	.600	.130
DILB40P-11	DILB40P-108	DILB40P-110 M83734/10-013	DILB40P-112 M83734/10-015	40	2.000	.700	.600	.130

Types P-11 and P-108 are available from stock. All other types are available on special order. Allow 4 to 6 weeks for delivery. For prices, reference price sheet No. 420.



†LOW EXTRACTION FORCE I.C. SOCKETS

Designed for LSI (large scale integration) packages. The unique contact design prevents "wicking" of solder into the contact area during PC board soldering process. Stand-offs provide easy removal of flux residue. Contact cavities are chamfered for easy insertion of I.C. package, and a polarization indicator is provided for proper package alignment.

A unique release mechanism allows quick and easy release of the I.C. yet the socket maintains the same patented high pressure contact surface as the other DILB series.

Low profile design, .195" maximum, contacts number from 24 to 64 contacts per socket.

Performance Characteristics:

Contact Resistance (maximum): 30 Milliohms

Test Current: 1 Ampere

Operating Temperature: Continuous -40°C to +150°C

Insulation Resistance (500VDC): 100,000 Megohms minimum

Dielectric Withstanding Voltage: 1,000 Volts A.C. RMS minimum

Durability: 100 Cycles — No electrical degradation

Thermal Shock: MIL-STD 202, Method 107, Condition B. No physical or electrical degradation

Consult your local Mallory distributor for price information.

Moisture Resistance: MIL-STD 202, Method 106; except omit steps 7A and 6B. 300 Megohms minimum
Vibration: MIL-STD 1344, Method 2005, Condition 111. No electrical interruption greater than 1 microsecond

Mechanical Shock: MIL-STD 202, Method 213, Condition 1. No electrical interruption greater than 1 microsecond.

Material:

Contacts: Beryllium copper

Plating: Tin alloy postplated

Body: Thermoplastic polyester, glass reinforced. Color black.

Flammability Rating: UL94V-0

Performance Characteristics conform to requirements of MIL-S-83734A.

No. of Contacts	Dimensions Inches			Catalog Number
	A	B Max	C	
24	1.330	.700	.600	DILBQ24P-101
28	1.530	.700	.600	DILBQ28P-101
40	2.130	.700	.600	DILBQ40P-101
64	3.330	1.000	.900	DILBQ64P-101

†Available on special order. Allow 4 to 6 weeks for delivery.

CONTINUED →

Specifications subject to change without notice.

MALLORY SEMICONDUCTOR PRODUCTS

Mallory offers replacement and industrial semiconductors for the technician/serviceman, hobbyist, experimenter and engineer. Included are transistors, diodes, multi-diode packages, and zener diodes. The devices are designed for maximum versatility and flexibility so that they can serve in a variety of consumer and industrial applications compatible with today's need.

See Mallory Price Sheet 200B for prices on all devices.

The Mallory Semiconductor Products listed on the following pages are arranged in order not by part number but by pertinent parameters. The Semiconductors are arranged in major groups by classifications as follows:

- I) Line Index to Semiconductor Devices
- II) Silicon Transistors (Bipolar Replacement Types)
- III) Germanium Transistors (Bipolar Replacement Types)
- IV) Semiconductor Hardware and Hardware Kits
- V) General Purpose Diodes and Rectifiers
- VI) 1 Watt Zener Diodes
- VII) Thyristors (SCR'S and TRIACS)
- VIII) Dual Diodes and Full Wave Bridges
- IX) Popular Silicon Rectifiers
- X) Industrial and Exact Replacement Diodes

I) LINE INDEX TO SEMICONDUCTOR DEVICES

Catalog Number	Line Number	Catalog Number	Line Number	Catalog Number	Line Number	Catalog Number	Line Number
A50	123	PTC142	21	PTC665	120	ZB27B	96
A100	See Page 127	PTC143	22	PTC666	121	ZB30B	97
A300	124	PTC144	20	S5A05	137	ZB33B	98
A600	125	PTC145	52	S5A2	138	ZB36B	99
A800	See Page 127	PTC146	43	S5A4	139	ZB39B	100
A1000	126	PTC148	24	S5A6	140	ZB43B	101
M2.5A	122	PTC154	36	S5A10	141	ZB47B	102
CTP Series	See Page 124	PTC155	55	S105A	142	ZB51B	103
FW Series	See Page 124	PTC160	28	S11A	See Page 125	ZB56B	104
FWHF Series	See Page 124	PTC163	27	S12A	143	ZB62B	105
FWHH Series	See Page 124	PTC164	42	S13A	See Page 125	ZB68B	106
FWLC Series	See Page 124	PTC166	37	S14A	144	ZB75B	107
FWLD Series	See Page 124	PTC168	38	S15A	See Page 125	ZB82B	108
PTC101	2, 10	PTC169	39	S16A	145	ZB91B	109
PTC102	50	PTC173	33	S17A	See Page 125	ZB100B	110
PTC103	1, 9	PTC175	34	S18A	See Page 125	ZB110B	111
PTC105A	57	PTC193	29, 19	S110A	146	ZB120B	112
PTC108	51	PTC194	56	S112A	147	ZB130B	113
PTC110	25	PTC201	64	ZB3.6B	79	ZB150B	114
PTC111	26	PTC202	65	ZB5.6B	80	ZB160B	115
PTC116	32	PTC203	66	ZB6.2B	81	ZB180B	116
PTC118	45	PTC204	68	ZB6.8B	82	ZB200B	117
PTC119	30	PTC205	67	ZB7.5B	83	IN2069A	134
PTC120A	58	PTC206	62	ZB8.2B	84	IN2070A	135
PTC121	7	PTC208	72	ZB9.1B	85	IN2071A	136
PTC122	61	PTC209	69	ZB10B	86	IN4001	127
PTC123	4	PTC214	63	ZB11B	87	IN4002	128
PTC127	14	PTC216	70	ZB12B	88	IN4003	129
PTC129A	44	PTC219	74	ZB13B	89	IN4004	130
PTC132	11	PTC403	75	ZB15B	90	IN4005	131
PTC134	53	PTC404	76	ZB16B	91	IN4006	132
PTC136	13	PTC405	77	ZB18B	92	IN4007	133
PTC139	3	PTC407	78	ZB20B	93		
PTC140	31	PTC658	118	ZB22B	94		
PTC141	23	PTC660	119	ZB24B	95		

Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

II SILICON TRANSISTORS Bipolar Replacement Types

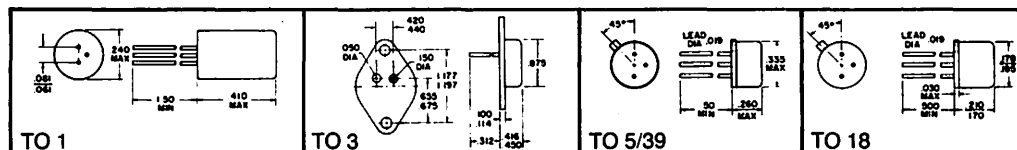
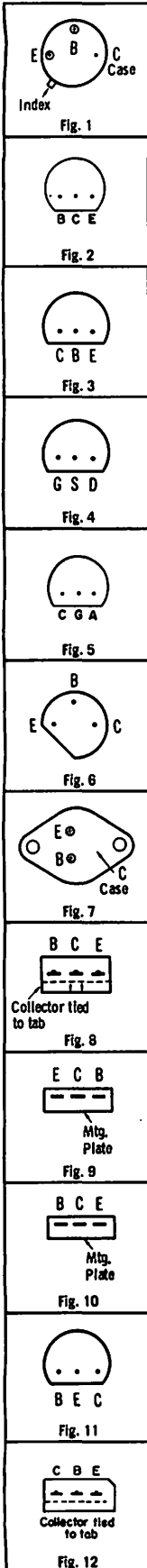
Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Typical	Absolute Maximum Ratings					Minimum
						h _{FE}	P _o (mW)	I _c (mA)	BV _{CE} (V)	BV _{CE} (V)	BV _{EB} (V)	f _t (MHz)
A) SMALL SIGNAL AF AMPLIFIERS & PREAMPLIFIERS In Order By: 1) Case Category, 2) h_{FE}												
1	PTC103	PNP	AF, IF, RF Amp/Oscillator	T092	5	140	500	600	70	70	5.5	300
2	PTC101	NPN	AF, IF, RF Amp/Oscillator	T0105	9	150	500	100	70	35	7.0	400
3	PTC139	NPN	High Gain Preamplifier	T092	5	700	315	100	33	30	7.0	200
4	PTC123	NPN	AF, IF Amp	T05	2	200	500	600	100	55	7.0	100
5	PTC127	PNP	AF Amp/Driver	T05	2	230	800	500	90	90	5.5	300
6	PTC136	NPN	AF, IF, RF Amp/Oscillator	T018	2	250	500	800	60	44	7.0	550

Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Minimum	Absolute Maximum Ratings					Typical
						f _t (MHz)	P _o (mW)	I _c (mA)	BV _{CE} (V)	BV _{CE} (V)	BV _{EB} (V)	h _{FE}
B) SMALL SIGNAL RF & IF AMPLIFIERS AND OSCILLATORS In Order By: 1) Case Category, 2) f_t												
7	PTC121	NPN	AF, IF, RF Amp/Oscillator	T092	5	100	500	100	70	50	5.0	200
8	PTC139	NPN	High Gain IF Amp	T092	5	200	315	100	33	30	7.0	700
9	PTC103	PNP	AF, IF, RF Amp/Oscillator	T092	5	300	500	600	70	70	5.5	140
10	PTC101	NPN	AF, IF, RF Amp/Oscillator	T0105	9	400	500	100	70	35	7.0	150
11	PTC132	NPN	VHF-UHF Amp/Oscillator/Mix	T092	21	1000	185	50	50	50	5.0	100
12	PTC123	NPN	AF, IF, Amp/Oscillator	T05	2	100	500	600	100	55	7.0	200
13	PTC136	NPN	AF, IF, RF, Amp/Oscillator	T018	2	550	500	800	60	44	7.0	250

Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Absolute Maximum Ratings					Minimum	Typical
						P _o (W)	I _c (A)	BV _{CE} (V)	BV _{CE} (V)	BV _{EB} (V)	f _t (MHz)	h _{FE}
C) LOW POWER AF AMP/AF DRIVER/AF OUTPUT In Order By: 1) Case Category, 2) P_o, 3) Catalog Number												
14	PTC127	PNP	AF Amp/Driver	T05	2	800m	500m	90	90	5.5	300	230
15	PTC144	NPN	AF Driver/Output	T05	2	5.0	1.0	130	100	8.0	150	100
16	PTC142	PNP	AF Driver/Output	T05	2	6.0	3.0	65	45	8.0	200	80
17	PTC143	NPN	AF Driver/Output	T05	2	6.0	3.0	65	45	8.0	200	80
18	PTC141	PNP	AF Driver/Output	T05	2	7.0	1.0	105	100	8.0	120	100
19	PTC193	NPN	AF Output/Modulator for CB Radio, etc.	T0202	26	7.0	1.5	50	40	5.0	70	150

Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Absolute Maximum Ratings					Minimum	Typical
						P _o (W)	I _c (A)	BV _{CE} (V)	BV _{CE} (V)	BV _{EB} (V)	f _t (MHz)	h _{FE}
D) MEDIUM POWER AF OUTPUTS (2 to 40W) In Order By: 1) Case Category, 2) P_o, 3) Catalog Number												
20	PTC144	NPN	AF Driver/Output	T05	2	5.0	1.0	130	100	8.0	150.0	100
21	PTC142	PNP	AF Driver/Output	T05	2	6.0	3.0	65	45	8.0	200.0	80
22	PTC143	NPN	AF Driver/Output	T05	2	6.0	3.0	65	45	8.0	200.0	80
23	PTC141	PNP	AF Driver/Output	T05	2	7.0	1.0	105	100	8.0	120.0	100
24	PTC148	NPN	AF Output/Regulator for Line Operated Sets	T066	12	40.0	5.0	160	120	6.0	20.0	60
25	PTC110	NPN	AF Output for Low Power Hi-Fi	T0220	13	12.5	3.0	70	70	7.0	75.0	100
26	PTC111	PNP	AF Output for Lower Power Hi-Fi	T0220	13	12.5	3.0	70	70	7.0	75.0	100
27	PTC163	NPN	AF Output for Medium Power Hi-Fi	T0126	15	40.0	4.0	60	60	5.0	2.0	50
28	PTC160	PNP	Fast Switching Amplifier	T0126	15	40.0	4.0	70	70	6.0	9.0	100
29	PTC193	NPN	AF Output/Modular for CB Radio, etc.	T0202	26	7.0	1.5	50	40	5.0	70.0	150

Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Absolute Maximum Ratings					Minimum	Typical
						P _o (W)	I _c (A)	BV _{CE} (V)	BV _{CE} (V)	BV _{EB} (V)	f _t (MHz)	h _{FE}
E) HIGH POWER AF OUTPUT (30 to 250W) In Order By: 1) Case Category, 2) P_o, 3) I_c, 4) Catalog Number												
30	PTC119	NPN	High Power Amplifier	T03	12	115	15.0	90	70	6.0	0.80	40
31	PTC140	NPN	High Power Amplifier	T03	12	115	15.0	105	65	7.5	2.00	120
32	PTC116	NPN	High Power Amplifier	T03	12	150	10.0	70	60	4.0	6.00	60
33	PTC173	NPN	High Power Output	T03	12	200	16.0	100	100	7.0	1.00	50
34	PTC175	NPN	Fast Switching-High Power/High Current Amplifier	T03	12	250	30.0	100	100	6.0	2.00	50
35	PTC148	NPN	AF Output/Regulator for Line operated sets	T066	12	40	5.0	160	120	6.0	20.00	60
36	PTC154	NPN	Fast Switching Power Amp.	T0220	13	50	7.0	90	70	5.0	3.00	70
37	PTC166	PNP	AF Power Output/TV Vertical Output	T0220	13	75	5.0	100	80	5.0	2.00	40
38	PTC168	PNP	High Power Amplifier (1)	T0127	16	100	12.0	80	80	5.0	2.00	50
39	PTC169	NPN	High Power Amplifier (1)	T0127	16	100	12.0	80	80	5.0	2.00	50
40	PTC162	PNP	AF Power Amplifier	T0126	15	40	4.0	60	60	5.0	2.00	50
41	PTC163	NPN	AF Power Amplifier	T0126	15	40	4.0	60	60	5.0	2.00	50
42	PTC164	PNP	High Power Amplifier (1)	T0127	15	100	12.0	80	80	5.0	2.00	50



Consult your local Mallory distributor for price information.

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Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Absolute Maximum Ratings					Maximum	
						Po (W)	Ic (A)	BVce (V)	BVce (V)	BVes (V)	tr (usec)	tf (usec)
F) TV HIGH POWER OUTPUT/DEFLECTION/SWITCHING In Order By: 1) Case Category, 2) Po, 3) Catalog Number												
43	PTC146	NPN	Horizontal Output	T03	12	65	7.0	1500	1500	5.0	.8	1.2
44	PTC129A	NPN	Horizontal Output	T03	12	100	5.0	700	600	3.0	.7	1.0
45	PTC118	NPN	Vertical Output	T03	12	125	10.0	350	330	4.0		
46	PTC175	NPN	Fast Switching High-Power, High Current Amplifier	T03	12	250	30.0	100	100	6.0	.7	
47	PTC154	NPN	Plastic Power AF/Vertical Output	T0220	13	50	7.0	90	70	5.0		
48	PTC160	PNP	Plastic Power AF/Vertical Output	T0126	15	40	4.0	70	70	6.0		

III) GERMANIUM TRANSISTORS Bipolar Replacement Types

Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Typical	Absolute Maximum Ratings					Minimum
						hfe	Po (mW)	Ic (mA)	BVce (V)	BVce (V)	BVes (V)	fr (MHz)
A) SMALL SIGNAL AF AMPLIFIERS & PREAMPLIFIERS In Order By: 1) Case Category, 2) hfe												
49	PTC102	PNP	AF/IF/RF Amp/Oscillator	T05	2	120	200	300	40	25.0	6.0	5.0

Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Minimum	Absolute Maximum Ratings					Typical
						fr (MHz)	Po (mW)	Ic (mA)	BVce (V)	BVce (V)	BVes (V)	hfe
50	PTC102	PNP	AF/IF/RF Amp/Oscillator	T05	2	5.0	200	300	40.0	25	6.0	120
51	PTC108	NPN	RF/IF/Amp/Osc/Mixer for AM Radio	T05	2	27.5	150	300	46.7	27	22.0	70
52	PTC145	PNP	IF/RF Amp/Osc/Mixer	T05	2	800.0	300	200	33.0	33	2.75	200

B) SMALL SIGNAL RF & IF AMPLIFIERS AND OSCILLATORS In Order By: 1) fr

Line	Catalog Number	Type (Polarity)	Description	Case Diagram	Terminal Diagram	Absolute Maximum Ratings					Minimum	Typical
						Po (W)	Ic (A)	BVce (V)	BVce (V)	BVes (V)	fr (MHz)	hfe
C) LOW POWER AF AMPLIFIERS/DRIVERS/OUTPUTS In Order By: 1) Po												
53	PTC134	NPN	Low Power Driver/Output	T01	1	350m	500m	36	36.0	14	2.75	180
54	PTC135	PNP	Low Power Driver/Output	T01	1	900m	500m	38	35.0	14	2.75	180

D) MEDIUM POWER AF DRIVER/OUTPUT (2 to 40 watts) In Order By: 1) Case Category

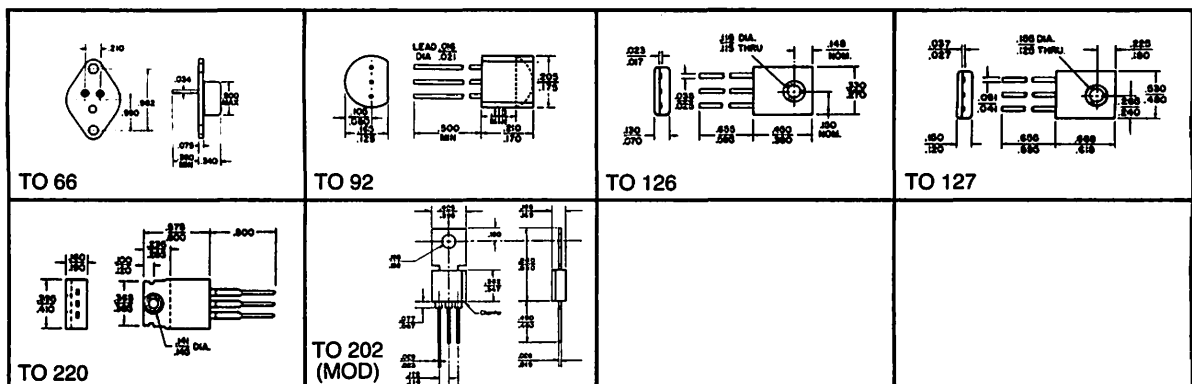
55	PTC155	PNP	Power Amp/Regulator (used in DC-DC (Conv's)	T08	1	9.0	5.0	60	40	5.0	1.0	100
56	PTC194	PNP	AF Power Output	MD10a	12	12.0	2.0	35	35	6.0	.700	100

E) HIGH POWER AMPLIFIERS (Over 30 watts) In Order By: 1) Case Category, 2) Po

57	PTC105A	PNP	AF Power Output	T03	12	90	10.0	100	75	50	.5	80
58	PTC120A	PNP	AF Power Output	T066	12	57	7.0	75	60	20	.25	150
60	PTC106A	PNP	AF Power Output	T036	10	150	15.0	55	45	20.0	.600	90

F) TV HIGH POWER OUTPUT/DEFLECTION/SWITCHING

61	PTC122	PNP	AF Output/Regulator and Switch	T03	12	56	10	220	350	2.2	1.1	65
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Consult your local Mallory distributor for price information.

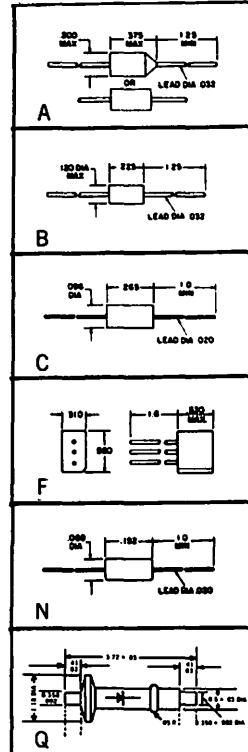
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Specifications subject to change without notice.

IV) SEMICONDUCTOR HARDWARE KITS and HARDWARE ITEMS

Catalog Number	Description
HD04A	Mica Washer
HD04B	Brass Washer
HD04C	Teflon® Washer
HD04D	Solder Terminal
HD05A	Mica Washer
HD05B	Brass Washer
HD05C	Teflon® Washer
HD05D	Solder Terminal
HD05E	1/4"-28 Locknut
HT039A	Mica Wafer
HT068B2	Insulating Shoulder Washer
HT0220A	Mica Wafer

Kit #	Contains	
	Quantity	Part Number
HD04 (For D04, S Case Diodes)	2	HD04A
	1	HD04B
	1	HD04C
	1	HD04D
	1	HT036E
HD05	2	HD05A
	1	HD05B
	1	HD05C
	1	HD05D
	1	HD05E



V) GENERAL PURPOSE DIODES and RECTIFIERS

Line	Catalog Number	Outline Diagram	Application	Material	Maximum Ratings				
					PIV (V)	I _o (A)	V _f at I _f (V)	I _r at PIV (μA)	1 Hz Surge (A)

A) GENERAL REPLACEMENT DIODES AND RECTIFIERS In Order By: PIV, 2) I_o

62	PTC206	C	General Detector	Germ.	50	50m	.50	375m	200	500m
63	PTC214	N	Fast Switching Det	Si.	200	250m	1.0	250m	1.0	8.0
64	PTC201	B	General Purpose Rectifier	Si.	400	1.0	1.0	1.0	1.0	30.0
65	PTC202	B	General Purpose Rectifier	Si.	600	1.0	1.0	1.0	1.0	30.0
66	PTC203	B	General Purpose Rectifier	Si.	1000	1.0	1.0	1.0	1.0	30.0
67	PTC205	B	General Purpose Rectifier	Si.	1000	2.5	1.0	2.5	1.0	80.0
68	PTC204	B	General Purpose Rectifier	Si.	1000	3.0	1.0	3.0	1.0	80.0

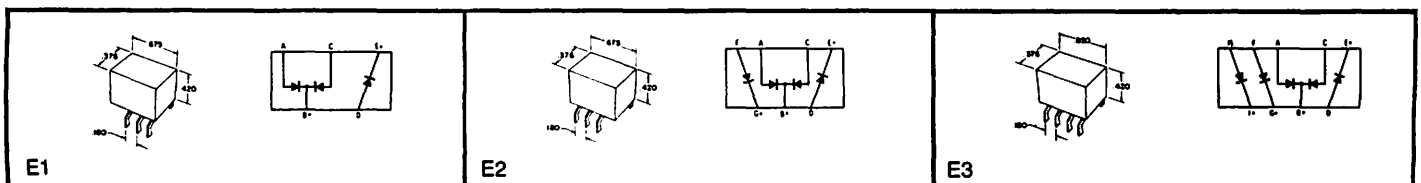
B) TELEVISION APPLICATIONS, SINGLE CELL

69	PTC209	SE	Boost Rectifier	Sel.	800	2m			150	
70	PTC216	A	Fast Switching Damper	Si.	1400	1.0	1.0	1.0	6.0	50
71	PTC218	P	Damper	Si.	5000	300m	4.4	300m	5.0	15
72	PTC208	SEL	Focus Rectifier	Sel.	6500	2m			150	
73	PTC210	J	High Voltage Rectifier	Sel.	11K	25m	18	25m	1.0	
74	PTC219	Q	High Voltage Rectifier for TV	Si.	45K	3.0mA	130	30mA	20nA	

C) TELEVISION APPLICATIONS, MULTI-CELL

75	PTC403	E1	Convergence	Sel.	18	65m				
76	PTC404	E2	Convergence	Sel.	18	65m				
77	PTC405	E3	Convergence	Sel.	18	65m				
78	PTC407	F	Horizontal AFC (1)	Sel.	47	250m				

(1) Cells connected in series (figure 18)



Consult your local Mallory distributor for price information.

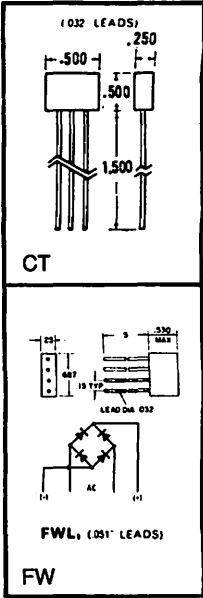
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VI) 1 WATT ZENER DIODES (See Note 1)

ZB ($\pm 5\%$) In Order By: Nominal Vz (Case B) (Vf @ If = 1.0v @ 1.0A)

Line	ZB 5% Catalog Number	Nominal Vz (V)	Irr (mA)	Maximum Ratings at 25°C			
				Zzt at Irr (Ohms)	Izx (mA)	Zzx at Izx (Ohms)	Izm (mA)
79	ZB3.6B	3.6	69.0	10.0	1.0	700	277
80	ZB5.6B	5.6	45.0	5.0	1.0	700	179
81	ZB6.2B	6.2	40.0	3.0	1.0	700	161
82	ZB6.8B	6.8	37.0	3.5	1.0	700	147
83	ZB7.5B	7.5	34.0	4.0	0.5	700	133
84	ZB8.2B	8.2	31.0	4.5	0.5	700	121
85	ZB9.1B	9.1	28.0	5.0	0.5	700	109
86	ZB10B	10.1	25.0	7.0	0.25	700	100
87	ZB11B	11.0	23.0	8.0	0.25	700	90
88	ZB12B	12.0	21.0	9.0	0.25	700	83
89	ZB13B	13.0	19.0	10.0	0.25	700	77
90	ZB15B	15.0	17.0	14.0	0.25	700	67
91	ZB16B	16.0	15.5	16.0	0.25	700	63
92	ZB18B	18.0	14.0	20.0	0.25	750	55
93	ZB20B	20.0	12.5	22.0	0.25	750	50
94	ZB22B	22.0	11.5	23.0	0.25	750	45
95	ZB24B	24.0	10.5	25.0	0.25	750	41
96	ZB27B	27.0	9.5	35.0	0.25	750	37
97	ZB30B	30.0	8.5	40.0	0.25	1000	33
98	ZB33B	33.0	7.5	45.0	0.25	1000	30
99	ZB36B	36.0	7.0	50.0	0.25	1000	27
100	ZB39B	39.0	6.5	60.0	0.25	1000	23
101	ZB43B	43.0	6.0	70.0	0.10	1500	25
102	ZB47B	47.0	5.5	80.0	0.25	1500	21
103	ZB51B	51.0	5.0	95.0	0.25	1500	19
104	ZB56B	56.0	4.5	110.0	0.25	2000	17
105	ZB62B	62.0	4.0	125.0	0.25	2000	16
106	ZB68B	68.0	3.7	150.0	0.25	2000	14
107	ZB75B	75.0	3.3	175.0	0.25	2000	13
108	ZB82B	82.0	3.1	200.0	0.25	3000	12
109	ZB91B	91.0	2.8	250.0	0.25	3000	10
110	ZB100B	100.0	2.5	350.0	0.25	3000	10
111	ZB110B	110.0	2.3	450.0	0.25	4000	9
112	ZB120B	120.0	2.0	550.0	0.25	4500	8
113	ZB130B	130.0	1.9	700.0	0.25	5000	7
114	ZB150B	150.0	1.7	1000.0	0.25	6000	6
115	ZB160B	160.0	1.6	1100.0	0.25	6500	6
116	ZB180B	180.0	1.4	1200.0	0.25	7000	5
117	ZB200B	200.0	1.2	1500.0	0.25	8000	5

1. Operating and Storage Temperature: absolute maximum limits -55°C to +100°C case.



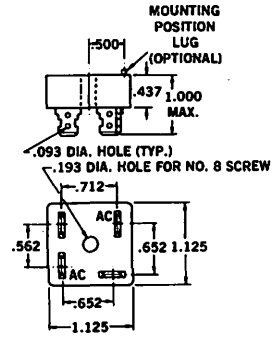
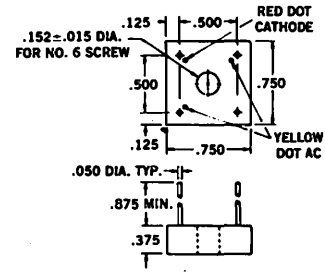
VII) THYRISTORS (SCR'S AND TRIACS)

Line	Catalog Number	Outline Diagram	Terminal Diagram	Description	Absolute Maximum Ratings									
					VDRM V	VRRM V	ICRM μ A	IT(RMS) A	VTM V	IET mA	VET V	PGM W	IM mA	ITSM A
118	PTC858	1/2" Stud	31	Power SCR	600	600	1m	15	1.6	20	1.5	30	35	150
119	PTC860	1/2" Stud	31	Power SCR	600	600	1m	35	1.6	25	2.0	40	40	300
120	PTC885	T0220	32	High Current TRIAC	600		2m	15	1.6	50	2.5	20	70	150
121	PTC886	1/2" Stud	33	High Current TRIAC	600		2m	25	1.6	50	2.5	40	80	225

VIII) DUAL DIODES AND FULL WAVE BRIDGES

Package	Case Outline Diagram	Maximum Ratings Io (A)		PIV Ratings (Volts)								
				50	100	200	300	400	500	600	800	1000
Bridge Rectifier	FW	2.0	Catalog Number	FW50	FW100	FW200	FW300	FW400	FW500	FW600	FW800	FW1000
Bridge Rectifier	FWL1	4.0	Catalog Number	FWLC 50	FWLC 100	FWLC 200	FWLC 300	FWLC 400	FWLC 500	FWLC 600	FWLC 800	FWLC 1000
Bridge Rectifier	FWL1	6.0	Catalog Number	FWLD 50	FWLD 100	FWLD 200	FWLD 300	FWLD 400	FWLD 500	FWLD 600	FWLD 800	FWLD 1000
Bridge Rectifier	FWHF	8.0	Catalog Number	FWHF 200	FWHF 300	FWHF 400	FWHF 500	FWHF 600	FWHF 800	FWHF 1000	FWHF 1000	FWHF 1000
Bridge Rectifier	FWHH	25.0	Catalog Number	FWHG 200	FWHG 300	FWHG 400	FWHG 500	FWHG 600	FWHG 800	FWHG 1000	FWHG 1000	FWHG 1000
Dual Diode Common Cathode	CT	1.5	Catalog Number	CTP 50	CTP 100	CTP 200	CTP 300	CTP 400	CTP 500	CTP 600	CTP 800	CTP 1000

CASE OUTLINE DIAGRAM



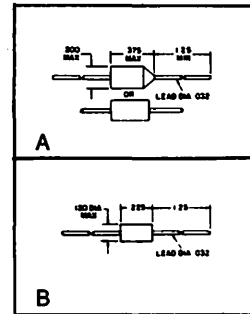
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IX) POPULAR SILICON RECTIFIERS

Line	Catalog Number	Outline Diagram	Maximum Ratings					1 Hz Surge (A)
			PIV (V)	I _o (A)	V _f at I _f (V)	I _r at PIV (μA)	I _f (A)	
122	M2.5A	B	1000	2.5	1.0	2.5	1.0	80
123	A50	B	50	1.0	1.0	1.0	5.0	60
124	A300	B	300	1.0	1.0	1.0	5.0	60
125	A600	B	600	1.0	1.0	1.0	5.0	60
126	A1000	B	1000	1.0	1.0	1.0	5.0	60
127	IN4001	B	50	1.0	1.0	1.0	10.0	30
128	IN4002	B	100	1.0	1.0	1.0	10.0	30
129	IN4003	B	200	1.0	1.0	1.0	10.0	30
130	IN4004	B	400	1.0	1.0	1.0	10.0	30
131	IN4005	B	600	1.0	1.0	1.0	10.0	30
132	IN4006	B	800	1.0	1.0	1.0	10.0	30
133	IN4007	B	1000	1.0	1.0	1.0	10.0	30

Line	Catalog Number	Outline Diagram	Maximum Ratings					1 Hz Surge (A)
			PIV (V)	I _o (A)	V _f at I _f (V)	I _r at PIV (μA)	I _f (A)	
134	IN2069A	B	200	750m	1.1	750m	5.0	50
135	IN2070A	B	400	750m	1.1	750m	5.0	50
136	IN2071A	B	600	750m	1.1	750m	5.0	50
137	SSA05	A	50	5.0	1.1	5.0	1.0	300
138	SSA2	A	200	5.0	1.1	5.0	1.0	300
139	SSA4	A	400	5.0	1.1	5.0	1.0	300
140	SSA6	A	600	5.0	1.1	5.0	1.0	300
141	SSA10	A	1000	5.0	1.1	5.0	1.0	300
142	SI05A	B	50	2.0	1.0	2.0	1.0	80
143	SI2A	B	200	2.0	1.0	2.0	1.0	80
144	SI4A	B	400	2.0	1.0	2.0	1.0	80
145	SI6A	B	600	2.0	1.0	2.0	1.0	80
146	SI10A	B	1000	2.0	1.0	2.0	1.0	80
147	SI12A	B	1200	2.0	1.0	2.0	1.0	80

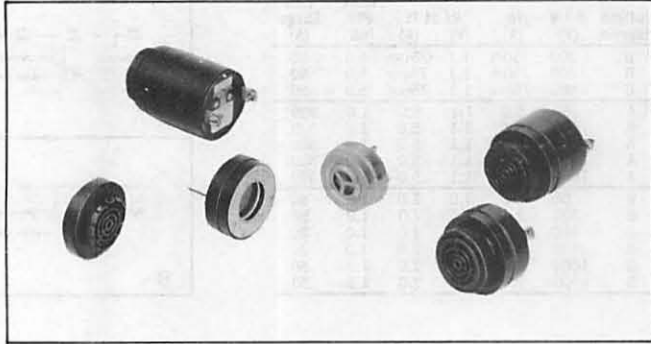


X) INDUSTRIAL AND EXACT REPLACEMENT DIODES

PIV (V)	I _o (A)	Case	Catalog Number	PIV (V)	I _o (A)	Case	Catalog Number	PIV (V)	I _o (A)	Case	Catalog Number	PIV (V)	I _o (A)	Case	Catalog Number
100	3.0	S	1N253	200	1.0	S	1N610A	400	1.6	S	1N1542	100	1.0	B	IN4002
200	3.0	S	1N254	300	1.0	S	1N611	500	1.6	S	1N1543	200	1.0	B	IN4003
400	3.0	S	1N255	300	1.0	S	1N611A	600	1.6	S	1N1544	400	1.0	B	IN4004
600	3.0	S	1N256	400	1.0	S	1N612	100	.6	H	1N1592	600	1.0	B	IN4005
400	1.2	S	1N332	400	1.0	S	1N612A	200	.6	H	1N1693	800	1.0	B	IN4006
400	.6	S	1N333	500	1.0	S	1N613	300	.6	H	1N1694	1000	1.0	B	IN4007
300	1.2	S	1N334	500	1.0	S	1N613A	400	.6	H	1N1695	50	1.5	B	1N4816
300	.6	S	1N335	600	1.0	S	1N614	500	.6	H	1N1696	100	1.5	B	1N4817
200	1.2	S	1N336	600	1.0	S	1N614A	600	.6	H	1N1697	200	1.5	B	1N4818
200	.6	S	1N337	500	.75	H	1N1095	200	.75	B	IN2069A	300	1.5	B	1N4819
100	1.2	S	1N339	600	.75	H	1N1096	400	.75	B	IN2070A	400	1.5	B	1N4820
100	.6	S	1N340	100	.75	H	1N1100	600	.75	B	IN2071A	500	1.5	B	1N4821
400	1.2	S	1N341	200	.75	H	1N1101	50	10.0	S	1N2246	600	1.5	B	1N4822
400	.6	S	1N342	300	.75	H	1N1102	50	10.0	S	1N2246A	50	3.0	A	1N5197
300	1.2	S	1N343	400	.75	H	1N1103	100	10.0	S	1N2248	100	3.0	A	1N5198
300	.6	S	1N344	500	.75	H	1N1104	100	10.0	S	1N2248A	200	3.0	A	1N5199
200	1.2	S	1N345	600	.75	H	1N1105	200	10.0	S	1N2250	400	3.0	A	1N5200
200	.6	S	1N346	100	1.5	S	1N1115	200	10.0	S	1N2250A	600	3.0	A	1N5201
100	1.2	S	1N348	200	1.5	S	1N1116	300	10.0	S	1N2252	50	1.0	B	A50
100	.6	S	1N349	300	1.5	S	1N1117	300	10.0	S	1N2252A	100	1.0	B	A100
100	.3	H	1N440	400	1.5	S	1N1118	400	10.0	S	1N2254	300	1.0	B	A300
100	.75	H	1N440B	500	1.5	S	1N1119	400	10.0	S	1N2254A	500	1.0	B	A500
200	.30	H	1N441	600	1.5	S	1N1120	500	10.0	S	1N2256	600	1.0	B	A600
200	.75	H	1N441B	200	3.0	S	1N1124	500	10.0	S	1N2256A	800	1.0	B	A800
300	.30	H	1N442	200	3.3	S	1N1124A	600	10.0	S	1N2258	1000	1.0	B	A1000
300	.75	H	1N442B	300	3.0	S	1N1125	600	10.0	S	1N2258A	800	.75	H	H800
400	.30	H	1N443	300	3.3	S	1N1125A	800	10.0	S	1N2260	100	5.0	A	SSA1
400	.75	H	1N443B	400	3.0	S	1N1126	800	10.0	S	1N2260A	100	5.0	A	SSA2
500	.30	H	1N444	400	3.3	S	1N1126A	1000	10.0	S	1N2262	300	5.0	A	SSA3
500	.75	H	1N444B	500	3.0	S	1N1127	1000	10.0	S	1N2262A	400	5.0	A	SSA4
600	.30	H	1N445	500	3.3	S	1N1127A	1200	10.0	S	1N2264	500	5.0	A	SSA5
600	.75	H	1N445B	600	3.0	S	1N1128	1200	10.0	S	1N2264A	600	5.0	A	SSA6
50	.75	H	1N536	600	3.3	S	1N1128A	1200	10.0	S	1N2265	800	5.0	A	SSA8
200	.75	H	1N538	50	12.0	S	1N1199A	1200	10.0	S	1N2265A	1000	5.0	A	SSA10
300	.75	H	1N539	100	12.0	S	1N1200A	50	15.0	VS	1N3208	100	2.0	B	SI1A
400	.75	H	1N540	150	12.0	S	1N1201A	100	15.0	VS	1N3209	200	2.0	B	SI2A
600	.75	H	1N547	200	12.0	S	1N1202A	200	15.0	VS	1N3210	300	2.0	B	SI3A
50	.6	H	1N599	300	12.0	S	1N1203A	300	15.0	VS	1N3211	400	2.0	B	SI4A
50	.6	H	1N599A	400	12.0	S	1N1204A	400	15.0	VS	1N3212	500	2.0	B	SI5A
100	.6	H	1N600	500	12.0	S	1N1205A	500	15.0	VS	1N3213	600	2.0	B	SI6A
100	.6	H	1N600A	600	12.0	S	1N1206A	600	15.0	VS	1N3214	700	2.0	B	SI7A
150	.6	H	1N601	50	6.0	S	1N1341B	50	18.0	V	1N3491	800	2.0	B	SI8A
150	.6	H	1N601A	100	6.0	S	1N1342B	100	18.0	V	1N3492	1000	2.0	B	SI10A
200	.6	H	1N602	150	6.0	S	1N1343B	200	18.0	V	1N3493	1200	2.0	B	SI12A
200	.6	H	1N602A	200	6.0	S	1N1344B	300	18.0	V	1N3494	1000	12.0	S	SI1000
300	.6	H	1N603	300	6.0	S	1N1345B	400	18.0	V	1N3495	50	3.0	VB	VB50
300	.6	H	1N603A	400	6.0	S	1N1346B	100	3.5	S	1N3569	100	3.0	VB	VB100
400	.6	H	1N604	500	6.0	S	1N1347B	200	3.5	S	1N3570	200	3.0	VB	VB200
400	.6	H	1N604A	600	6.0	S	1N1348B	300	3.5	S	1N3471	300	3.0	VB	VB300
500	.6	H	1N605	100	.75	H	1N1487	400	3.5	S	1N3572	400	3.0	VB	VB400
500	.6	H	1N605A	200	.75	H	1N1488	500	3.5	S	1N3473	500	3.0	VB	VB500
600	.6	H	1N606	300	.75	H	1N1489	600	3.5	S	1N3574	600	3.0	VB	VB600
600	.6	H	1N606A	400	.75	H	1N1490	50	25.0	V	1N3659				
50	1.0	S	1N607	500	.75	H	1N1491	100	25.0	V	1N3660				
50	1.0	S	1N607A	600	.75	H	1N1492	200	25.0	V	1N3661				
100	1.0	S	1N608	50	1.6	S	1N1537	300	25.0	V	1N3662				
100	1.0	S	1N608A	100	1.6	S	1N1538	400	25.0	V	1N3663				
150	1.0	S	1N609	150	1.6	S	1N1539	500	25.0	V	1N3664				
150	1.0	S	1N609A	200	1.6	S	1N1540	600	25.0	V	1N3665*				
200	1.0	S	1N610	300	1.6	S	1N1541	50	1.0	B	IN4001				

*Also Available in Reverse Polarity. Add Suffix R to Catalog Number

Consult your local Mallory distributor for price information.



Mallory Sonalert® signals produce an audible tone by electronic means when voltage is applied. Voltages from 1V to 250V may be used depending upon the model.

Electrical power is converted to sound by means of a piezoelectric transducer operating substantially at resonance in a solid state oscillator resulting in efficient power conversion.

Sonalert signals may be powered by many electrical sources ranging from single cell batteries to industrial power lines. Little electrical power is required making them ideally suitable for portable battery operated equipment. This low power feature allows the Sonalert signal to be turned on or off with a low power transistor, SCR, or integrated circuit. Completely solid state with no moving parts, no arcing, and no mechanical wear, the Mallory Sonalert signals should give you many years of trouble-free service.

For complete specification request bulletin 4-10-03. For pricing see price sheet No. 700.

Continuous Tones					Minimum Sound Pressure dB (A) at Two Feet		Operating Voltage *AC/DC Non-polar All Others DC Only		Typical Operating Current MA	
Part and Model Number	Loudness Category	Mounting Method	Case Style	Frequency ±500Hz	At Min. V	At Max. V	Min.	Max.	At Min. V	At Max. V
					SC110N	LOUD	PANEL	D	2900	80	95	*30	120	8	28
SC616N	LOUD	PANEL	C	2900	80	95	6	16	4	16
SC616NL	LOUD	PANEL	C-3	2900	80	95	6	16	4	16
SC628AN	LOUD	PANEL	D	2900	80	95	* 6	28	8	28
SC648AN	LOUD	PANEL	D	2900	80	95	*10	48	8	28
SBM2	MEDIUM	PRINTED BOARD	F	2900	55	68	1	5	2	12
SBM428	MEDIUM	PRINTED BOARD	F	2900	64	78	4	28	2	14
SNP2	MEDIUM	SNAP IN PANEL	B	2900	55	68	1	5	2	12
SNP428	MEDIUM	SNAP IN PANEL	B	2900	64	78	4	28	2	14
SC110	MEDIUM	PANEL	D	2900	68	80	*30	120	4	16
SC110D	MEDIUM	PANEL	D	1900	60	75	*30	120	4	16
SC110H	MEDIUM	PANEL	D	4500	68	80	*30	120	4	16
SC250	MEDIUM	PANEL	D	2900	68	80	*60	250	4	16
SC250D	MEDIUM	PANEL	D	1900	60	75	*60	250	4	16
SC250H	MEDIUM	PANEL	D	4500	68	80	*60	250	4	16
SC628	MEDIUM	PANEL	C	2900	64	80	4	28	3	14
SC628A	MEDIUM	PANEL	D	2900	68	80	* 6	28	4	16
SC628AD	MEDIUM	PANEL	D	1900	60	75	* 6	28	4	16
SC628AH	MEDIUM	PANEL	D	4500	68	80	* 6	28	4	16
SC628D	MEDIUM	PANEL	C	1900	60	75	6	28	3	14
SC628H	MEDIUM	PANEL	C	4500	68	80	6	28	3	14
SC628L	MEDIUM	PANEL	C-3	2900	68	80	6	28	3	14
SC648	MEDIUM	PANEL	C	2900	68	80	10	48	3	14
SC648A	MEDIUM	PANEL	D	2900	68	80	*10	48	4	16
SC648AD	MEDIUM	PANEL	D	1900	60	75	*10	48	4	16
SC648AH	MEDIUM	PANEL	D	4500	68	80	*10	48	4	16
SC648D	MEDIUM	PANEL	C	1900	60	75	10	48	3	14
SC648H	MEDIUM	PANEL	C	4500	68	80	10	48	3	14
SC1.5	SOFT	PRINTED BOARD	A	3500	60 @ 1.5 V		1	4	4 @ 1.5 V	
SC6	SOFT	PRINTED BOARD	A	3500	70 @ 6 V		4	8	12 @ 6 V	
SC12	SOFT	PRINTED BOARD	A	3500	70 @ 12 V		8	15	14 @ 12 V	
SC18	SOFT	PRINTED BOARD	A	3500	70 @ 18 V		14	22	16 @ 18 V	
SC24	SOFT	PRINTED BOARD	A	3500	70 @ 24 V		20	30	16 @ 24 V	
SNP428F	SOFT	SNAP IN PANEL	B	2900	55	70	4	28	0.5	3
SC110E	SOFT	PANEL	D	1900	55	65	*30	120	3	14
SC110F	SOFT	PANEL	D	2900	55	70	*30	120	1	4
SC250E	SOFT	PANEL	D	1900	55	65	*60	250	3	14
SC250F	SOFT	PANEL	D	2900	55	70	*60	250	1	4
SC628AE	SOFT	PANEL	D	1900	55	65	* 6	28	3	14
SC628AF	SOFT	PANEL	D	2900	55	70	* 6	28	1	4
SC628E	SOFT	PANEL	C	1900	55	68	6	28	3	8
SC628F	SOFT	PANEL	C	2900	55	70	6	28	0.5	3

Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

Intermittent Tones						Minimum Sound Pressure dB (A) at Two Feet		Operating Voltage *AC/DC Non-polar All Others DC Only		Typical Operating Current MA		
Part and Model Number	Loudness Category	Mounting Method	Case Style	Frequency ±500Hz	At Min. V		At Max. V		At Min. V		At Max. V	
					At Min. V	At Max. V	Min.	Max.	At Min. V	At Max. V		
Fast Pulse Turns on and off at 2 to 9 pulses per second depending upon voltage at 50% duty cycle. ▼ Slow Pulse Turns on and off at .5 to 1.5 pulses per second depending upon voltage at 50% duty cycle.												
SC110NP	SC110NJ	LOUD	PANEL	D	2900	80	95	*30	120	8	28	
SC616NP	SC616NJ	LOUD	PANEL	C	2900	80	95	6	16	4	16	
SC628ANP	SC628ANJ	LOUD	PANEL	D	2900	80	95	*6	28	8	28	
SC648ANP	SC648ANJ	LOUD	PANEL	D	2900	80	95	*10	48	8	28	
SBM616P	SBM616J	MEDIUM	PRINTED BOARD	F	2900	68	78	6	16	1	4	
SC110DP	SC110DJ	MEDIUM	PANEL	E	1900	60	75	*30	120	4	16	
SC110HP	SC110HJ	MEDIUM	PANEL	E	4500	68	80	*30	120	4	16	
SC110P	SC110J	MEDIUM	PANEL	E	2900	68	80	*30	120	4	16	
SC250DP	SC250DJ	MEDIUM	PANEL	E	1900	60	75	*60	250	4	16	
SC250HP	SC250HJ	MEDIUM	PANEL	E	4500	68	80	*60	250	4	16	
SC250P	SC250J	MEDIUM	PANEL	E	2900	68	80	*60	250	4	16	
SC616P	SC616J	MEDIUM	PANEL	C-1	2900	68	78	6	16	1	4	
SC616P-1	SC616J-1	MEDIUM	PANEL	C-2	2900	68	78	6	16	1	4	
SC628ADP	SC628ADJ	MEDIUM	PANEL	E	1900	60	75	*6	28	4	16	
SC628AHP	SC628AHJ	MEDIUM	PANEL	E	4500	68	80	*6	28	4	16	
SC628AP	SC628AJ	MEDIUM	PANEL	E	2900	68	80	*6	28	4	16	
SC628DP	SC628DJ	MEDIUM	PANEL	D	1900	60	75	6	28	3	14	
SC628HP	SC628HJ	MEDIUM	PANEL	D	4500	68	80	6	28	3	14	
SC628P	SC628J	MEDIUM	PANEL	D	2900	68	80	6	28	3	14	
SC648ADP	SC648ADJ	MEDIUM	PANEL	E	1900	60	75	*10	48	4	16	
SC648AP	SC648AJ	MEDIUM	PANEL	E	2900	68	80	*10	48	4	16	
SC110EP	SC110EJ	SOFT	PANEL	E	1900	55	68	*30	120	3	14	
SC110FP	SC110FJ	SOFT	PANEL	E	2900	55	70	*30	120	4	16	
SC250EP	SC250EJ	SOFT	PANEL	E	1900	55	68	*60	250	3	14	
SC250FP	SC250FJ	SOFT	PANEL	E	2900	55	70	*60	250	4	16	
SC628AEP	SC628AEJ	SOFT	PANEL	E	1900	55	68	*6	28	3	14	
SC628AFP	SC628AFJ	SOFT	PANEL	E	2900	55	70	*6	28	4	16	
SC628EP	SC628EJ	SOFT	PANEL	D	1900	55	68	6	28	3	8	
SC628FP	SC628FJ	SOFT	PANEL	D	2900	55	70	6	28	3	14	
Short Pulse Turns on and off at .5 to 1.5 pulses per second depending upon voltage at 10% duty cycle.												
SC110K		MEDIUM	PANEL	E	2900	68	80	*30	120	4	16	
SC628K		MEDIUM	PANEL	D	2900	68	80	6	28	3	14	
SC110FK		SOFT	PANEL	E	2900	55	70	*30	120	4	16	
SC628FK		SOFT	PANEL	D	2900	55	70	6	28	3	14	
Combined continuous or pulsing sound in one package. When power terminals are connected, third terminal may be switched to common (-) to select a continuous sound or switched to positive (+) to select a pulsing sound. Switching current is less than .15 milliamp.												
Continuous Fast Pulse Continuous Slow Pulse												
SBM616PC	SBM616JC	MEDIUM	PRINTED BOARD	F	2900	68	78	6	16	2	10	
Fast Warble Slow Warble Produces two tones alternately when used with additional continuous tone unit.												
SC628W	SC628JW	MEDIUM	PANEL	D-1	2900	68	80	6	28	3	16	
(USE WITH SC628D OR SC628H)												
SC628FW	SC628FJW	SOFT	PANEL	D-1	2900	55	70	6	28	3	14	
(USE WITH SC628E)												
Chime Tone A pleasant sound which chimes every one or two seconds as long as voltage is applied.												
SC616CP		MEDIUM	PANEL	D	2900	68	80	6	16	3	8	
Chirp A unique sound which pulses at 20-60 pulses per second rate.												
SC110Q (AC ONLY)		MEDIUM	PANEL	C	2900	68	80	30	120	3	10	
SC616Q		MEDIUM	PANEL	C-1	2900	68	78	6	16	1	4	

Underwriters laboratories

The following models are listed as recognized components — audible signal appliances. Guide Number UCST2, Yellow Card Number S1290.

SNP428 SC628 SC648 SC628P SC110 SC110P

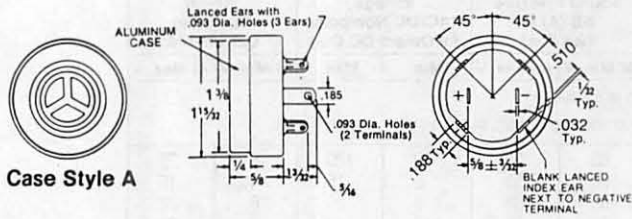
Consult your local Mallory distributor for price information.

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Specifications subject to change without notice.

OUTLINE DIMENSIONS

FRACTIONS ± 1/32 DECIMALS ± .01

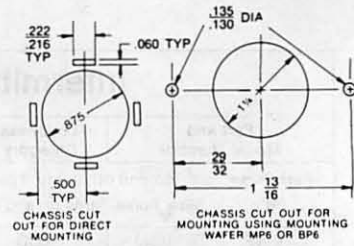


Case Style A

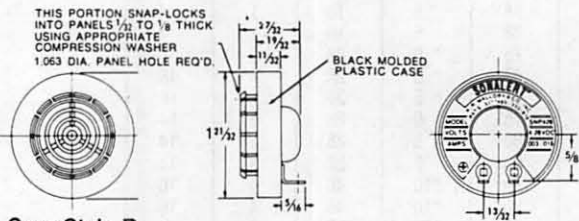
Terminals— .032 steel, tin plated with .093 dia. wire hole, will accept standard 3/16" quick disconnect.



BP6 BAKELITE MOUNTING WAFER



Mounting— Four lanced twist mount ears per EIA std. RS395 are provided for mounting. Terminals are electrically isolated from case and mounting ears. Also may be mounted using mounting wafer number MP6 for uninsulated mounting or mounting wafer number BP6 to insulate case from chassis.

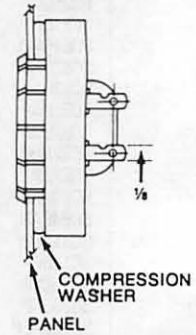


Case Style B

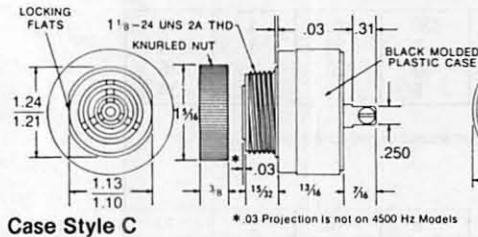
Terminals— .016 brass, hot tin finish with .076 wire hole. Terminal will accept standard 1/8" quick disconnect.

Mounting— Panel hole 1.063 ± .005 diameter should be punched from the back side so that locking fingers enter on the slightly rounded edge of the hole. Assemble proper compression washer and press into panel hole until locking fingers snap over hole edge. Installation pressure should be applied only at the circumference of the device.

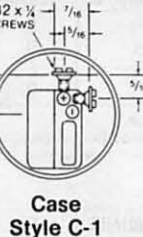
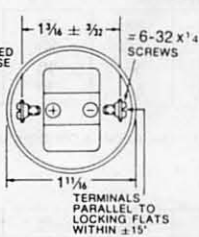
PANEL THICKNESS	COMPRESSION WASHER NO.
11-12 GA. (.125-.109)	PW1
13-17 GA. (.093-.056)	PW2
18-22 GA. (.050-.031)	PW3



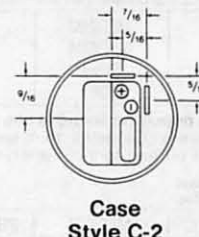
TYPICAL PANEL INSTALLATION



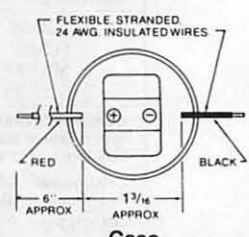
Case Style C



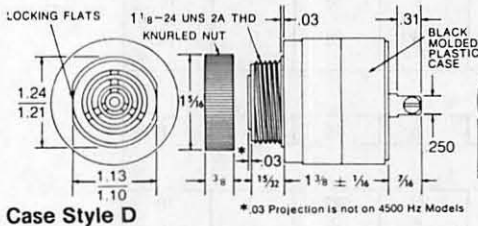
Case Style C-1



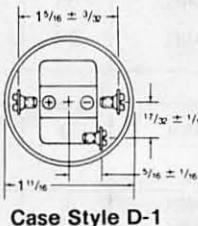
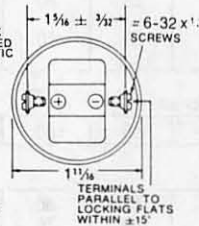
Case Style C-2



Case Style C-3



Case Style D



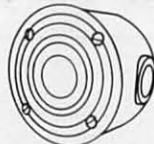
Case Style D-1

Terminals— .032 brass, tin plated, tapped for #6-32 screw. Two #6-32 cadmium or zinc plated steel screws included. Will accept standard 1/4" quick disconnect.

Mounting— Remove black plastic nut and insert threaded front through 1.25" hole punched in panel. If orientation is needed, note locking flats on drawing. Screw nut back on. Do not overtighten. To substitute natural finished aluminum nut add C to catalog number. To substitute black anodized aluminum nut add B to catalog number. Example: — SC628B.

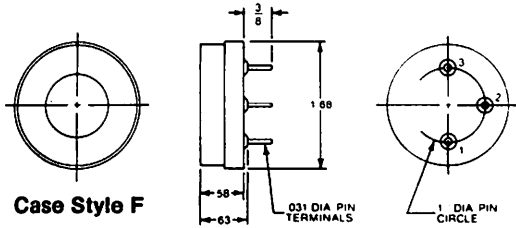
Case Style E—Outline dimensions are the same as case style D except length is changed to 1-15/16 ± 3/32.

Electrical Mounting Box — Part Number SCMB
Used to mount Sonalert® signal case styles C and D on standard 3/4 inch electrical conduit. 3-1/2 inch diameter, 2 inch deep ABS plastic.



Consult your local Mallory distributor for price information.

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Case Style F

Mounting—Insert into printed circuit board and hand or machine solder. For recommended fluxing, soldering, and cleaning procedures, send for Mallery Audio Signal Engineering Bulletin 778.

Terminals— .031 dia. soldercoated copperclad steel.

Electrical Connections— SBM2, SBM428, SBM616P, SBM616J — When pin 1 is connected to + voltage and pin 3 is connected to common (–), unit will sound. Pin 2 is for mechanical support only and is not connected internally.

SBM616PC, SBM616JC— When pin 1 is connected to + voltage, and pin 3 is connected to common (–), and the voltage on pin 2 is within 1.25V of pin 1 or higher, the unit will sound a pulsing tone. When the voltage on pin 2 is within .9V of pin 3 or lower the unit will sound a continuous tone. The maximum voltage which may be applied to pin 2 before damage may occur is ± 16V referenced to pin 3. Pin 2 input impedance is 110K ohm.

Sonalert® signals for military applications

For applications requiring operation over extended temperature ranges, or in extreme environmental conditions, military models are recommended. These special units use MIL approved components if available. Exposed surface of the sound transducer is treated with a corrosion protective coating. Mounting nut is anodized aluminum. Terminals are tin plated brass with nickel plated 6-32 screws. All units are marked with Mallery name, part number, polarity and date code per MIL-STD-1285. Marking is permanently preserved by a layer of clear epoxy. Customer part number may be included on label if desired. A certificate of compliance to Mallery specifications will be supplied if requested.

Black plastic case and black anodized aluminum mounting nut is standard. To specify olive drab case and mounting nut, add G to part number. Example: SC628MG. To specify black case and clear anodized mounting nut add C to part number. Example: SC628MC.

Life specifications: 250 hours continuous operation at 85°C and maximum rated voltage applied. 5000 cycles one minute on, 5 minutes off at 25°C and maximum rated voltage applied.

Environmental specifications

Test	MIL-STD-202 method	Test condition
Thermal shock	107	A
Humidity	103	B
Salt spray	101	A
Shock	213	H
Vibration	201	None
Terminal strength	211	A (5 lbs)

Life expectancy: 5 years under normal operating conditions.

Operating temperature: –40°C to +85°C

Storage temperature: –65°C to +85°C

Altitude change: 10,000 feet per minute maximum.

Quality Specifications

Operating—100% tests of sound and frequency at 85°C, 25°C and –40°C. Data at 25°C is supplied with parts.

Environmental—MIL Std. 105D Level II single normal inspection. .65 AQL.

MALLORY CAPACITOR CO. CODE IDENTIFICATION – 37942

Operating specifications

Continuous Tones					Minimum Sound Pressure dB(A) at Two Feet		Operating Voltage *AC/DC Non-polar All Others DC Only		Typical Operating Current MA	
Part and Model Number	Loudness Category	Mounting Method	Case Style	Frequency ±500Hz	At Min. V	At Max. V	Min.	Max.	At Min. V	At Max. V
					SC628M	Medium	Panel	C	2900	68	80	6	28	3	14
SC628MD	Medium	Panel	C	1900	60	75	6	28	3	14
SC628MH	Medium	Panel	C	4500	68	80	6	28	3	14
SC648M	Medium	Panel	C	2900	68	80	10	48	3	14
SC648MD	Medium	Panel	C	1900	60	75	10	48	3	14
SC648MH	Medium	Panel	C	4500	68	80	10	48	3	14
SC628MA	Medium	Panel	D	2900	68	80	* 6	28	4	16
SC628MAH	Medium	Panel	D	4500	68	80	* 6	28	4	16
SC648MA	Medium	Panel	D	2900	68	80	*10	48	4	16
SC648MAH	Medium	Panel	D	4500	68	80	*10	48	4	16
SC110M	Medium	Panel	D	2900	68	80	*30	120	4	16
SC110MH	Medium	Panel	D	4500	68	80	*30	120	4	16
SC250M	Medium	Panel	D	2900	68	80	*60	250	4	16
FAST PULSE TURNS ON AND OFF AT 2 TO 9 PULSES PER SECOND DEPENDING UPON VOLTAGE AT 50% DUTY CYCLE.										
SC628MP	Medium	Panel	D	2900	68	80	6	28	3	14
SC628MHP	Medium	Panel	D	4500	68	80	6	28	3	14
FAST WARBLE PRODUCES TWO TONES ALTERNATELY WHEN USED WITH ADDITIONAL CONTINUOUS UNIT.										
SC628MW	Medium	Panel	D-1	2900	68	80	6	28	3	16

Consult your local Mallery distributor for price information.

Back by popular demand, Mallory components are now available in compact Mallobin merchandisers. The Mallobin is a handsome, easy to stack display case designed for quick access to a variety of electronic components.

Mallobins are available in two sizes: the standard Mallobin with fifteen drawers, and the Master Mallobin. Master Mallobins have twenty large drawers with partitions to accommodate an even greater assortment of components.

Whether you choose a standard Mallobin or an expanded Master Mallobin, you can rest assured, Mallory Mallobins offer the versatility and component reliability you desire.

Mallobins and Master Mallobins can be supplied containing other Mallory products in a variety of component mixes. Contact your Mallory salesman for details.



MASTER MALLOBINS

MLC2001D An assortment of 1/2" diameter subminiature potentiometers. 1/8" shafts with 1/4 x 32 bushing. 1/4 watt. Values from 1K to 1 megohm.

MTC2001D A selection of heavy duty miniature trimmers with horizontal and vertical adjustment models. Values from 100 ohms to 5 megohms.

RVA2001D A combination of cermet and carbon subminiature trimmer potentiometers in two convenient sizes. Horizontal and vertical mounting styles. Values from 500 ohms to 2 megohms.

MR2001D An assortment of wirewound 3 watt potentiometers with various mounting styles. Values from 10 ohms to 15K ohms.

CCC1 An assortment of general purpose type disc ceramic capacitors. Values from 3.3pF to .05μF.

CCC2 A selection of temperature and frequency compensated ceramic capacitors. Values from 1pF to .01μF.

CCC3/3A An assortment of low voltage type disc ceramic capacitors. Values from .001μF to 1μF and 3WVDC to 500WVDC.

CCC4 Specially selected high voltage type ceramic capacitors. Values from 15pF to .01μF and 2KV to 6KV.

SX2001D A selection of polystyrene film capacitors, designed for high temperature stability. Values from 5pF to .01μF.

TT2001D A wide assortment of miniature axial leaded aluminum electrolytic capacitors. Values from 1μF to 1,500μF with voltages to 150WVDC.

YTL2001D A selection of miniature single ended aluminum electrolytic capacitors. Values from 1μF to 3,300μF with voltages to 100WVDC.

MALLOBINS

TT151 An assortment of axial leaded miniature aluminum electrolytic capacitors with voltages to 150WVDC. Values from 1μF to 1,500μF.

TC151 Assorted axial leaded aluminum electrolytic capacitors with voltages to 600WVDC. Values from 1μF to 5,000μF.

PVC151 A selection of radial leaded epoxy coated film capacitors with voltages to 2,000WVDC. Values from .001μF to 2μF.

MON0151 A collection of monolithic ceramic capacitors with voltages to 200WVDC. Values from 10pF to 1μF.

MTP151 An assortment of axial leaded liquid electrolyte tantalum capacitors with voltages to 60WVDC. Values from 1μF to 470μF.

TIM151 A selection of molded solid tantalum capacitors. Radial leads and voltage ratings to 50WVDC. Values from 1μF to 68μF.

CTL151 Assorted liquid electrolyte tantalum capacitors. Axial leads and copper alloy case with voltages to 125WVDC. Values from 2.5μF to 560μF.

TDC151 An assortment of epoxy dipped solid tantalum capacitors. Voltages to 35WVDC. Values from 1μF to 150μF.

MALLOBINS

ZBB151 A collection of 1 watt zener diodes. 5% tolerance. Values from 3.6V to 200V.

FW151 An assortment of bridge rectifiers with voltage capabilities to 1,000 volts. Values from 1.5 amps to 25 amps.

UL151 Assorted circuit breakers designed for anti-cheat reset action. Values from .5 amps to 3.5 amps.

DIPS151 A selection of dual-in-line sockets and switches. 8 to 40 pin sockets and 4 to 9 actuator DIP switches.

RVS151 A package containing cermet and carbon subminiature trimmer potentiometers. Horizontal and vertical mounting styles. Values from 500 ohms to 2 megohms.

MTC151 An assortment of horizontal and vertical mount miniature trimmer potentiometers. Values from 100 ohms to 5 megohms.

MR151 Assorted wirewound 3 watt potentiometers with various mounting styles. Values from 10 ohms to 15K ohms.

G301 Kit containing two Mallobin cabinets with general purpose ceramic disc capacitors.

SX301 Kit containing two Mallobin cabinets with polystyrene film capacitors. Values from 5pF to .01μF.

L151 An assortment of low voltage type ceramic disc capacitors. Values from .001μF to 1μF.

VTL151 A selection of single ended aluminum electrolytic capacitors with voltages to 100WVDC. Values to 1μF to 3,300μF.

Consult your local Mallory distributor for price information.



MALLORY'S GOT IT

FOR YOU!

• INSTANT INFORMATION

MALLORY DOES IT! Distributor Order Entry System Information Terminal — gives you on-line direct access to our computer. In seconds you can get all the facts you need to place your order: inventory availability, quantity pricing cross reference, part numbers. For the complete line of Mallory Precision Electronic Components, you can put a DOES IT in your office for a surprisingly low monthly rate.

• FAST DELIVERY

We can deliver the parts you need anywhere in the U.S. in just a few days. Because we're set up to process, pack and get your order out the door in hours. Delivery is prompt, because we're located at the crossroads of the country, a major shipping hub with a concentration of motor freight carriers on-call, day and night. You get instant service on the complete line of Mallory Precision Electronic Components.

• VERSATILE PACKAGING

Whether your customers buy by the thousands or one at a time, Mallory can deliver products in the packaging you want. Super-bulk, Mini-bulk, or display. Complete and versatile packaging for the complete line of Mallory Precision Electronic Components.

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Every Mallory component you receive has its quality tested twice. First at the manufacturing plant, and again when it is received at our warehouse. Quality assurance is more than a policy at Mallory, it's a way of life. This practice applies to the complete line of Mallory Precision Electronic Components.

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