

Replaced by MHL18926N. There are no form, fit or function changes with this part replacement. N suffix added to part number to indicate transition to lead-free terminations.

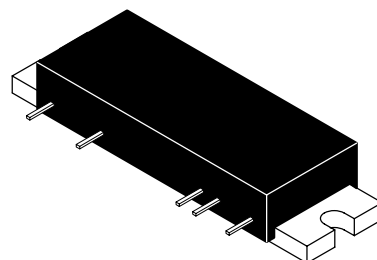
## MHL18926

# PCS Band RF Linear LDMOS Amplifier

Designed for ultra-linear amplifier applications in 50 ohm systems operating in the PCS frequency band. A silicon FET Class A design provides outstanding linearity and gain. In addition, the excellent group delay and phase linearity characteristics are ideal for digital modulation systems, such as TDMA, GSM EDGE and CDMA.

1805 - 1880 MHz, 10 W, 28.6 dB  
RF LINEAR LDMOS AMPLIFIER

- Third Order Intercept Point: 50 dBm Typ
- Power Gain: 28.6 dB Typ (@ f = 1842 MHz)
- Excellent Phase Linearity and Group Delay Characteristics
- Ideal for Feedforward Base Station Application



CASE 301AY-01, STYLE 1

**Table 1. Absolute Maximum Ratings** ( $T_C = 25^\circ\text{C}$  unless otherwise noted)

Rating	Symbol	Value	Unit
DC Supply Voltage	$V_{DD}$	30	Vdc
RF Input Power	$P_{in}$	+18	dBm
Storage Temperature Range	$T_{stg}$	- 40 to +100	$^\circ\text{C}$
Operating Case Temperature Range	$T_C$	- 20 to +100	$^\circ\text{C}$

**Table 2. Electrical Characteristics** ( $T_C = +25^\circ\text{C}$ ;  $V_{DD} = 26\text{ Vdc}$ ; 50  $\Omega$  System)

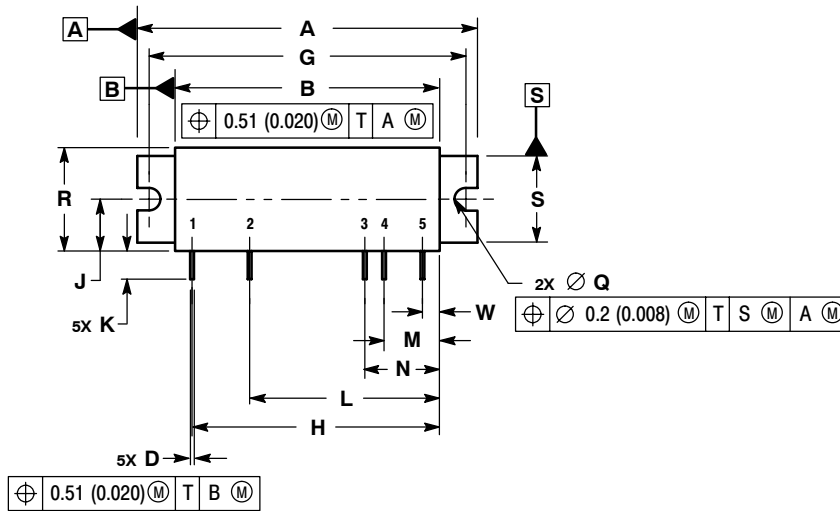
Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current	$I_{DD}$	—	1.1	1.15	A
Power Gain (f = 1842 MHz)	$G_p$	27.6	28.6	29.6	dB
Gain Flatness (f = 1805 - 1880 MHz)	$G_F$	—	0.3	0.5	dB
Power Output @ 1 dB Compression (f = 1842 MHz)	P1 dB	39	40	—	dBm
Input VSWR (f = 1805 - 1880 MHz)	VSWR <sub>in</sub>	—	1.2:1	1.5:1	
Third Order Intercept (f <sub>1</sub> = 1839 MHz, f <sub>2</sub> = 1844 MHz)	ITO	49.5	50	—	dBm
Noise Figure (f = 1880 MHz)	NF	—	4.2	5	dB

**NOTE - CAUTION** - MOS devices are susceptible to damage from electrostatic charge. Reasonable precautions in handling and packaging MOS devices should be observed.

ARCHIVE INFORMATION

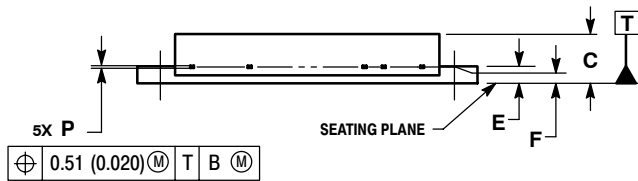
ARCHIVE INFORMATION

### PACKAGE DIMENSIONS



- NOTES:
1. CONTROLLING DIMENSION: MILLIMETER.
  2. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M, 1982.
  3. DIMENSION F TO CENTER LINE OF LEADS.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	44.7	45.21	1.760	1.780
B	34.8	35.31	1.370	1.390
C	6.22	6.73	0.245	0.265
D	0.43	0.58	0.017	0.023
E	2.03	2.54	0.080	0.100
F	2.18 BSC		0.086 BSC	
G	41.91 BSC		1.650 BSC	
H	32.77 BSC		1.290 BSC	
J	6.76	7.11	0.266	0.280
K	3.18	4.19	0.125	0.165
L	25.15 BSC		0.990 BSC	
M	7.37 BSC		0.290 BSC	
N	9.91 BSC		0.390 BSC	
P	0.2	0.33	0.008	0.013
Q	3	3.35	0.118	0.132
R	13.59	14.1	0.535	0.555
S	11.3	11.81	0.445	0.465
W	2.29 BSC		0.090 BSC	



- STYLE 1:
- PIN 1. RF INPUT
  - VDD1
  - VDD2
  - VDD3
  - RF OUTPUT
- CASE: GROUND

CASE 301AY-01  
ISSUE O

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