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The RF Line

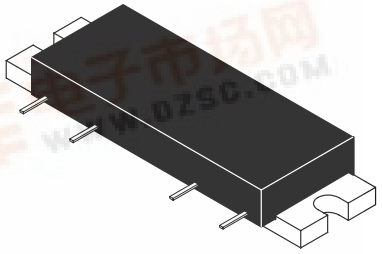
CDMA Band RF Linear LDMOS Amplifier

Designed for Class AB amplifier applications in 50 ohm systems operating in the 1800 to 1900 MHz frequency band. A silicon FET design provides outstanding linearity and gain. In addition, the excellent group delay and phase linearity characteristics are ideal for digital CDMA and GSM modulation systems.

- Typical CDMA Performance: 1840 MHz, 28 Volts
  IS–95 CDMA Pilot, Sync, Paging, Traffic Codes 8 Through 13
- Adjacent Channel Power: –51 dBc @ 30 dBm Average Power, 885 kHz Channel Spacing
- Power Gain: 24.5 dB Min (@ f = 1840 MHz)
- Excellent Phase Linearity and Group Delay Characteristics
- Ideal for Feedforward Base Station Applications

MHPA18010

1805–1880 MHz
10 W, 24.5 dB
RF HIGH POWER LDMOS AMPLIFIER



CASE 301AP–02, STYLE 3

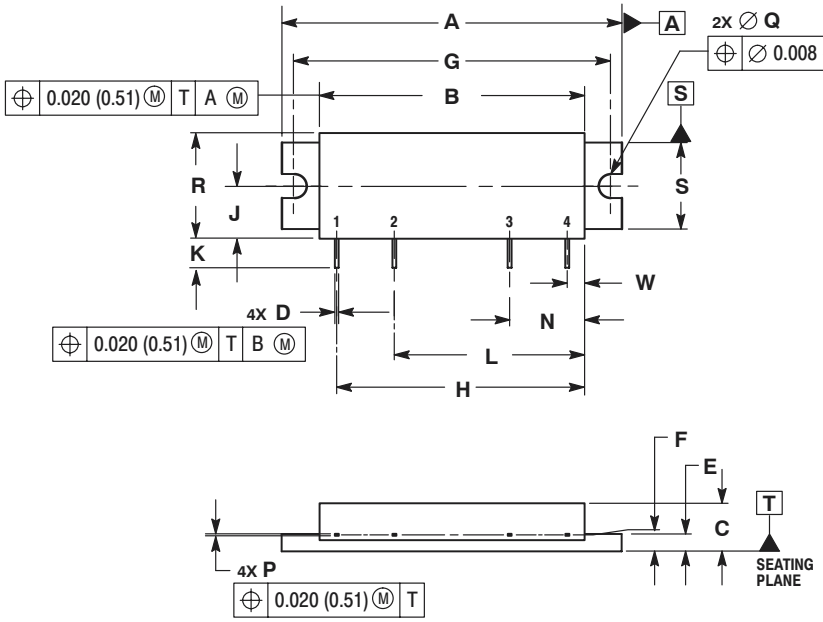
MAXIMUM RATINGS (T_C = 25°C unless otherwise noted)

Rating	Symbol	Value	Unit
DC Supply Voltage	V_{DD}	30	Vdc
RF Input Power (Single Carrier CW)	P_{in}	+20	dBm
Storage Temperature Range	T_{stg}	–40 to +100	°C
Operating Case Temperature Range	T_C	–20 to +100	°C

ELECTRICAL CHARACTERISTICS (V_{DD} = 28 Vdc, V_{BIAS} ≅ 8 V Set for Supply Current of 600 mA, T_C = 25°C, 50 Ω System)

Characteristic		Symbol	Min	Typ	Max	Unit
Supply Current		I_{DD}	—	600	—	mA
Power Gain	(f = 1840 MHz)	G_p	24.5	25.5	—	dB
Gain Flatness	(f = 1805–1880 MHz)	G_F	—	0.2	0.5	dB
Power Output @ 1 dB Comp.	(f = 1840 MHz)	P1dB	—	41.5	—	dBm
Input VSWR	(f = 1805–1880 MHz)	$VSWR_{in}$	—	1.5:1	2:1	
Noise Figure	(f = 1840 MHz)	NF	—	8	10	dB
Adjacent Channel Power Rejection @ 30 dBm Average Power, 1.23 MHz BW, 885 kHz Channel Spacing		ACPR	—	–58	–51	dBc

PACKAGE DIMENSIONS



NOTES:
1. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: INCH.
3. DIMENSION "F" TO CENTER OF LEADS.

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	1.760	1.780	44.70	45.21
B	1.370	1.390	34.80	35.31
C	0.245	0.265	6.22	6.73
D	0.017	0.023	0.43	0.58
E	0.080	0.100	2.03	2.54
F	0.086 BSC		2.18 BSC	
G	1.650 BSC		41.91 BSC	
H	1.290 BSC		32.77 BSC	
J	0.266	0.280	6.76	7.11
K	0.125	0.165	3.18	4.19
L	0.990 BSC		25.15 BSC	
N	0.390 BSC		9.91 BSC	
P	0.008	0.013	0.20	0.33
Q	0.118	0.132	3.00	3.35
R	0.535	0.555	13.59	14.10
S	0.445	0.465	11.30	11.81
W	0.090 BSC		2.29 BSC	

STYLE 3:
PIN 1. RF INPUT
2. VBIAS
3. VDD
4. RF OUTPUT
CASE: GROUND

CASE 301AP–02
ISSUE C

HOW TO REACH US:

USA/EUROPE/LOCATIONS NOT LISTED:
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