

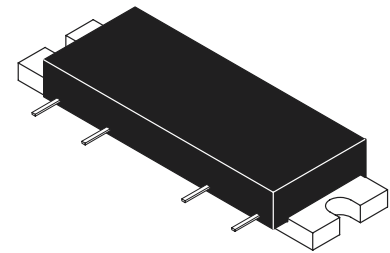
## The RF Line CDMA Band RF Linear LDMOS Amplifier

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

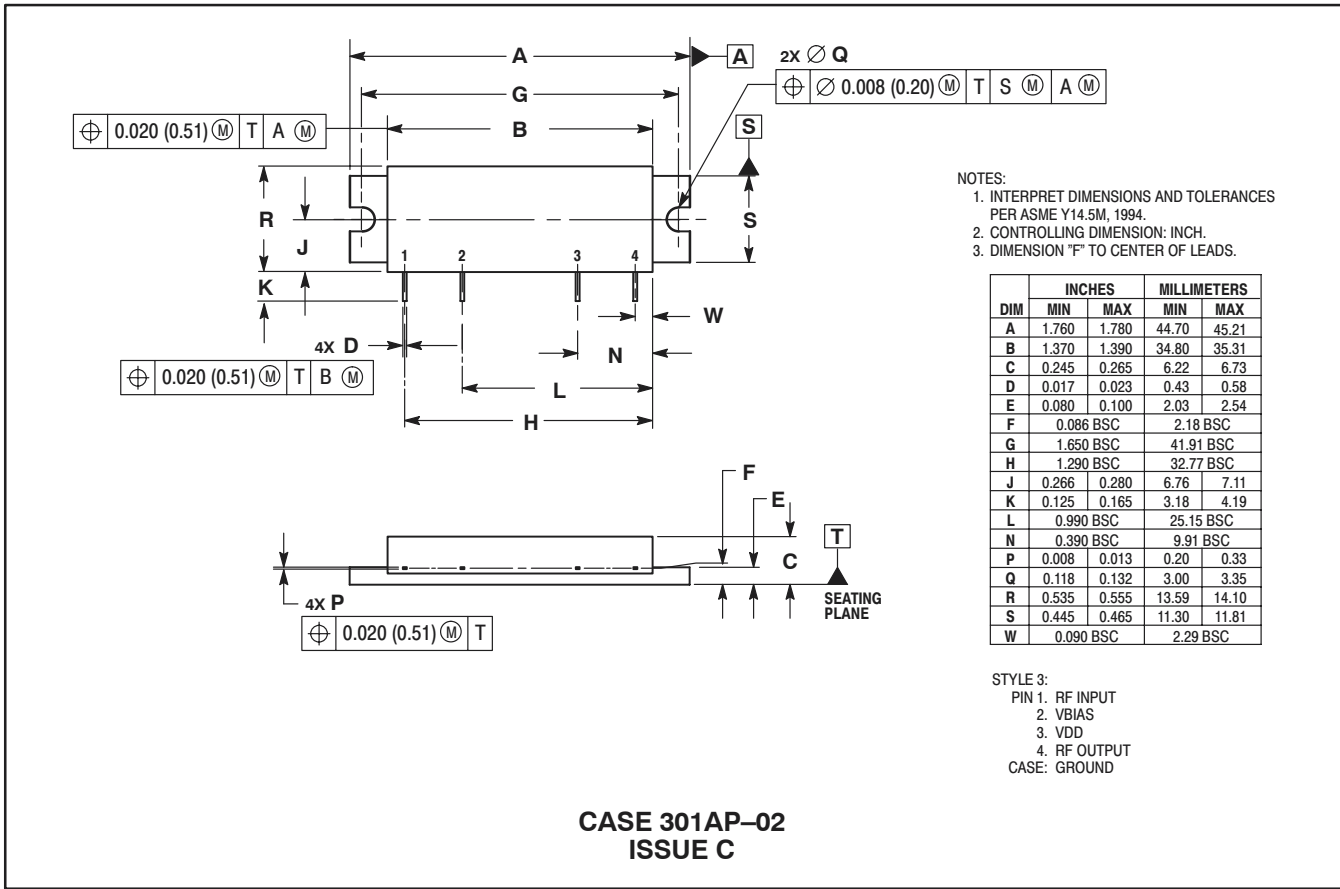
### MAXIMUM RATINGS (T<sub>C</sub> = 25°C unless otherwise noted)

Rating	Symbol	Value	Unit
DC Supply Voltage	V <sub>DD</sub>	30	Vdc
RF Input Power (Single Carrier CW)	P <sub>in</sub>	+20	dBm
Storage Temperature Range	T <sub>stg</sub>	-40 to +100	°C
Operating Case Temperature Range	T <sub>C</sub>	-20 to +100	°C

### ELECTRICAL CHARACTERISTICS (V<sub>DD</sub> = 28 Vdc, V<sub>BIAS</sub> ≅ 8 V Set for Supply Current of 600 mA, T<sub>C</sub> = 25°C, 50 Ω System)

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current	I <sub>DD</sub>	—	600	—	mA
Power Gain (f = 1840 MHz)	G <sub>p</sub>	24.5	25.5	—	dB
Gain Flatness (f = 1805–1880 MHz)	G <sub>F</sub>	—	0.2	0.5	dB
Power Output @ 1 dB Comp. (f = 1840 MHz)	P <sub>1dB</sub>	—	41.5	—	dBm
Input VSWR (f = 1805–1880 MHz)	VSWR <sub>in</sub>	—	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



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