

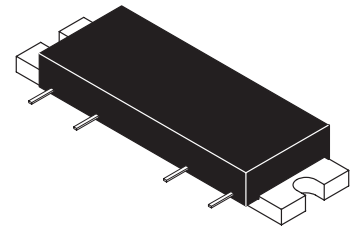
The RF Line
PCS Band
RF Linear LDMOS Amplifier

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 and CDMA.

- Third Order Intercept: 46 dBm Typ
- Power Gain: 30 dB Typ (@ f = 1850 MHz)
- Excellent Phase Linearity and Group Delay Characteristics
- Ideal for Feedforward Base Station Applications

MHL18336

1800–1900 MHz
4 W, 30 dB
RF LINEAR LDMOS AMPLIFIER



CASE 301AP-02, STYLE 1

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

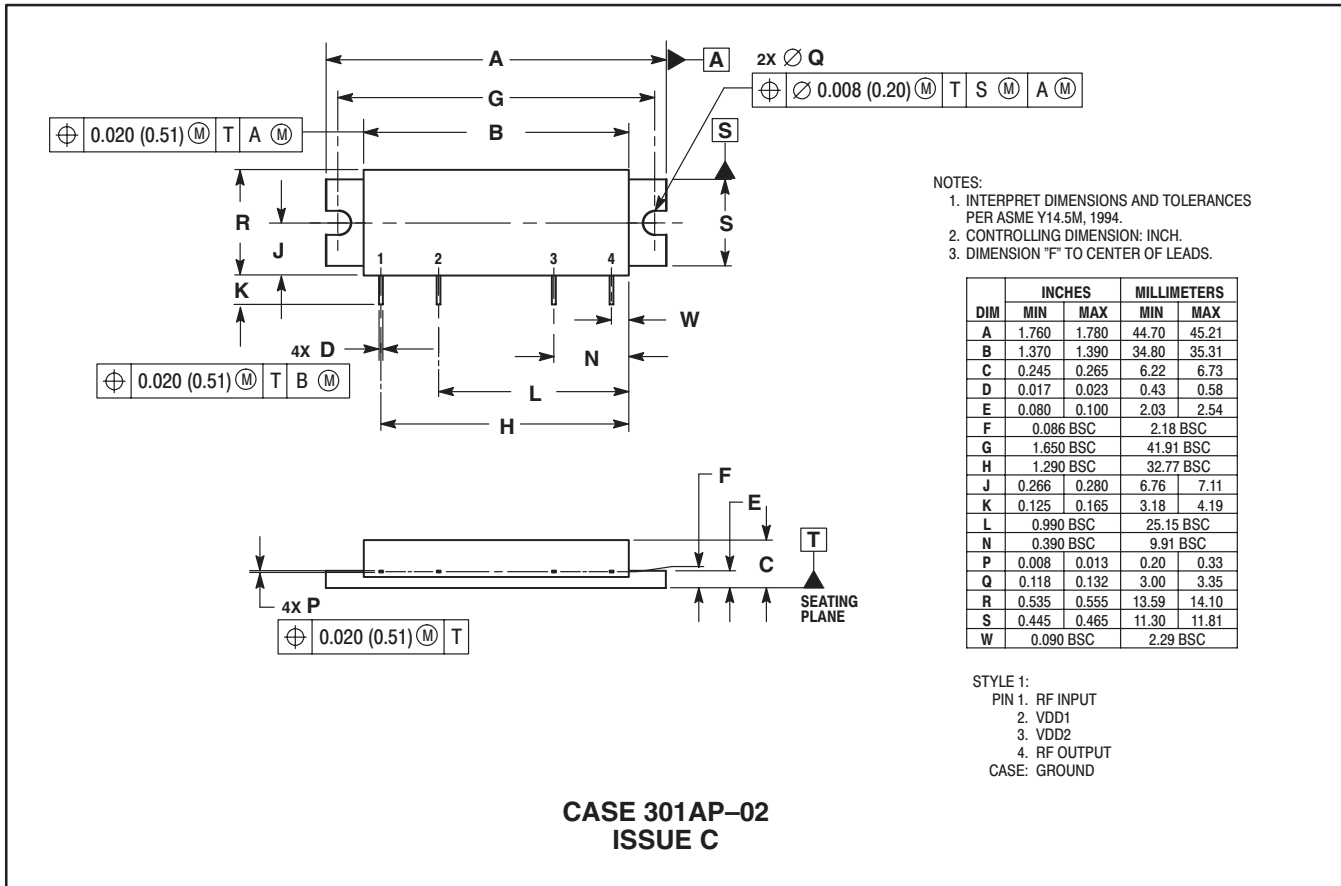
Rating	Symbol	Value	Unit
DC Supply Voltage	V_{DD}	30	Vdc
RF Input Power	P_{in}	+10	dBm
Storage Temperature Range	T_{stg}	-40 to +100	$^\circ\text{C}$
Operating Case Temperature Range	T_C	-20 to +100	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($V_{DD} = 26\text{ Vdc}$, $T_C = 25^\circ\text{C}$; 50 Ω System)

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current	I_{DD}	—	500	525	mA
Power Gain (f = 1850 MHz)	G_p	29	30	31	dB
Gain Flatness (f = 1800–1900 MHz)	G_F	—	0.2	0.4	dB
Power Output @ 1 dB Comp. (f = 1850 MHz)	$P_{out\ 1\ dB}$	35	36	—	dBm
Input VSWR (f = 1800–1900 MHz)	$VSWR_{in}$	—	1.2:1	1.5:1	
Third Order Intercept (f1 = 1847 MHz, f2 = 1852 MHz)	ITO	45	46	—	dBm
Noise Figure (f = 1850 MHz)	NF	—	4.2	4.5	dB

Freescale Semiconductor, Inc.

PACKAGE DIMENSIONS



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