

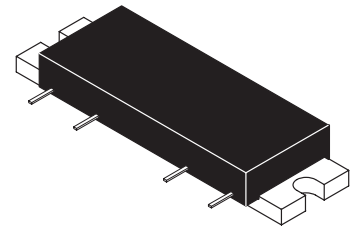
The RF Line  
**PCS Band**  
**RF Linear LDMOS Amplifier**

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)

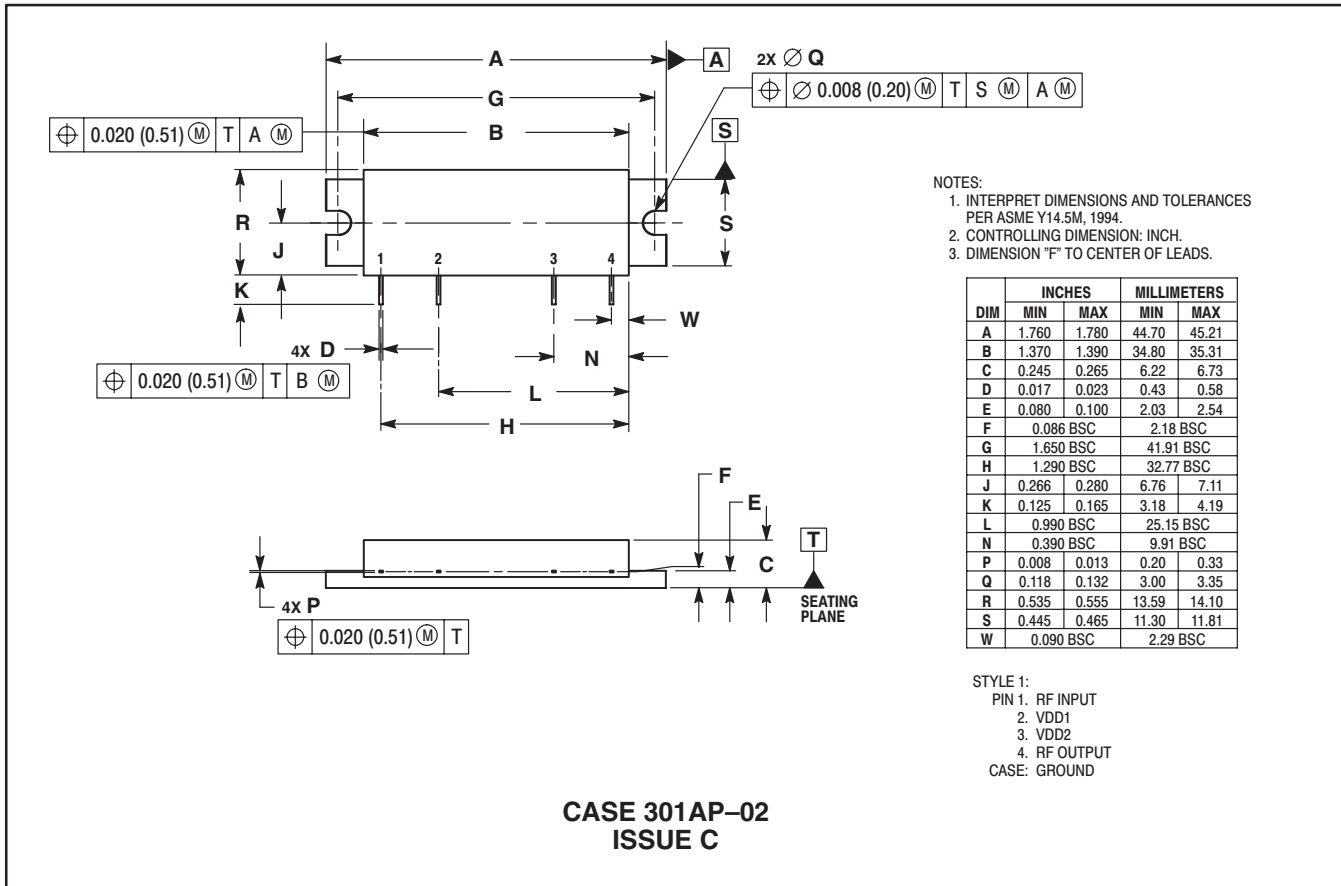
Rating	Symbol	Value	Unit
DC Supply Voltage	$V_{DD}$	30	Vdc
RF Input Power	$P_{in}$	+10	dBm
Storage Temperature Range	$T_{stg}$	-40 to +100	$^\circ\text{C}$
Operating Case Temperature Range	$T_C$	-20 to +100	$^\circ\text{C}$


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