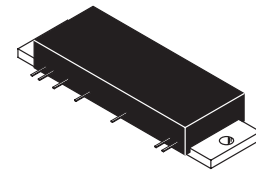


The RF Line
**Microwave Bipolar
Power Amplifier**

- Specified 26 Volt Characteristics:
RF Output Power: 15 Watts
RF Power Gain: 31 dB Typ
Efficiency: 25% Min
- 50 Ohm Input/Output System

MHW1915

**15 W
1930–1990 MHz
RF POWER AMPLIFIER**



CASE 301AK-01, STYLE 1

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
DC Supply Voltage	V_S	28	Vdc
DC Bias Voltage	V_B	5.5	Vdc
RF Input Power	P_{in}	17	dBm
RF Output Power	P_{out}	23	W
Operating Case Temperature Range	T_C	-30 to +85	°C
Storage Temperature Range	T_{stg}	-30 to +100	°C

ELECTRICAL CHARACTERISTICS ($V_S = 26$ Vdc; $V_{BIAS} = 5$ Vdc; $T_C = +25^\circ\text{C}$; 50 Ω system)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	1930	—	1990	MHz
Total Quiescent Current ($P_{in} = 0$ mW)	I_q	—	300	—	mA
Power Gain ($P_{out} = 15$ W) (1)	G_p	29	31	—	dB
Output Power at 1 dB Compression	P1dB	15	—	—	Watts
Efficiency (1 dB Compression Power)	η	25	—	—	%
Input VSWR ($P_{out} = 15$ W)	$VSWR_{IN}$	—	—	2:1	—
Ripple ($P_{out} = 15$ W)	R_p	—	1	—	dB
Load Mismatch Stress ($P_{out} = 15$ W; Load VSWR = 2:1; at All Phase Angles)	ψ	No Degradation in Output Power			
Stability ($P_{out} = 1$ mW – 15 W; Load VSWR = 2:1; at All Phase Angles except Harmonics)	—	All Spurious Outputs More than 60 dB Below Desired Signal			
Stability ($P_{out} = 1$ mW – 15 W; Load VSWR = 2:1; $f = 1930 - 1990$ MHz; at All Phase Angles)	—	All Spurious Outputs Typically Lower than -36 dBm			

(1) Adjust P_{in} for specified P_{out} .

ARCHIVE INFORMATION

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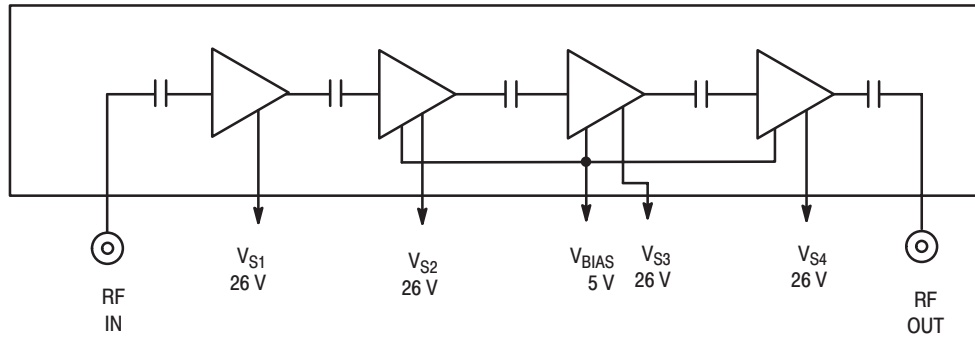
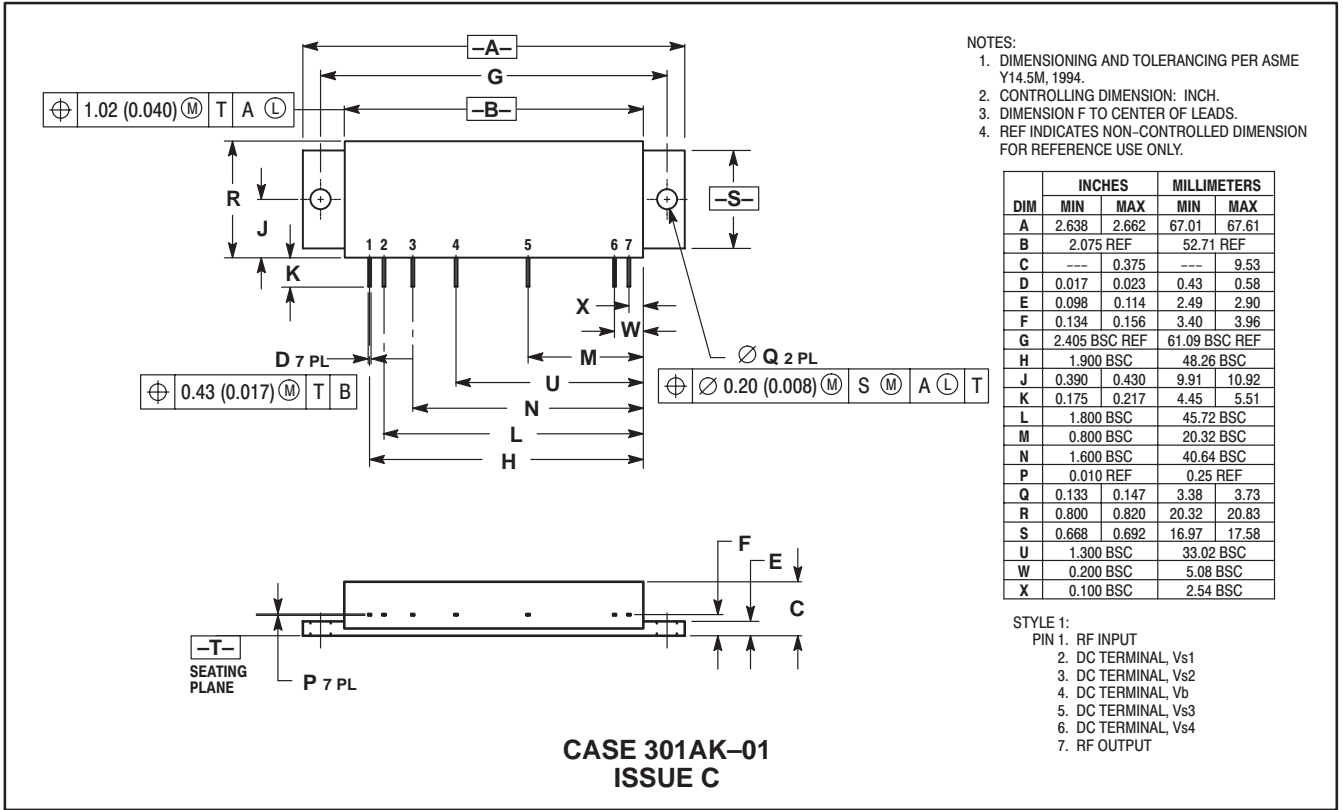



Figure 1. Internal Diagram

PACKAGE DIMENSIONS



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