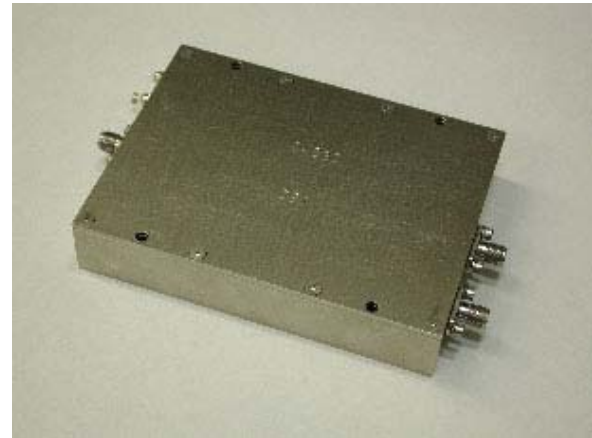


DESCRIPTION

AMCOM's AM094233SF-3H is a broadband Power Amplifier designed for high power microwave applications. It operates from 0.9 to 4.2GHz and delivers a minimum P1dB of +31dBm and a minimum small signal gain of 16dB. The amplifier is in an aluminum housing with SMA connectors. The unit has an RF output monitoring port and is equipped with a built-in reverse-bias protection circuit and a zero-gate voltage/drain-shutoff switching circuit.



FEATURES

- Broadband design from 0.9 to 4.2GHz
- High Gain (16dB min.) and High Saturated Power (31.5dBm min.) across entire operating frequency band.
- RF Output Monitoring Port (Nominal Coupling Factor: 14.5dB)
- +15V/1A, -5V/65mA bias with built-in reverse-bias protection and zero-gate voltage/drain shutoff circuit.
- Positive Voltage Regulation.
- Return Loss on Input port: > 12dB. Return Loss on Output port: > 8dB.

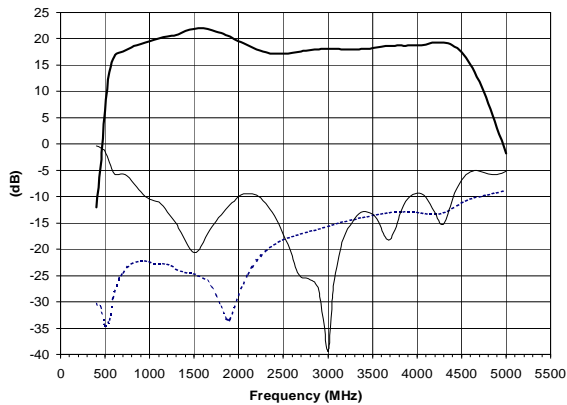
ABSOLUTE MAXIMUM RATING

Parameters	Rating
Positive Voltage	20V
Negative Voltage	-7V
Input RF Power	+17dBm
Case Temperature	55°C

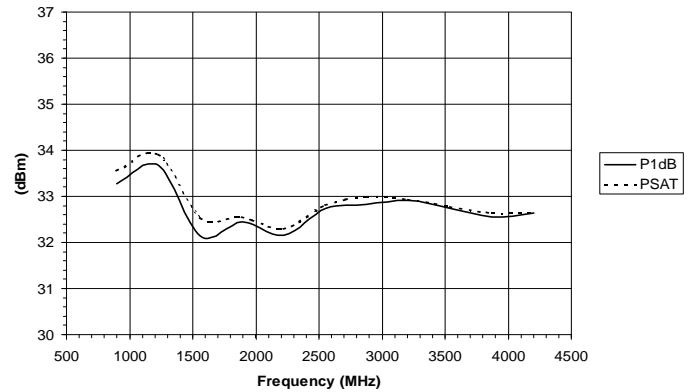
PERFORMANCE FROM 0.9- 4.2 GHz (TA = 25°C)

Parameters	Test Conditions	MIN	TYP	MAX
Small Signal Gain (dB)	+15V, -5V	16	19.5	
P1dB (dBm)	+15V, -5V	31	32	
Gain Flatness (dB)	+15V, -5V		+/- 2.5	+/- 3.0
Saturated Output Power (dBm)	+15V, -5V	31.5	32.5	
RF Input Return Loss (dB)	+15V, -5V	12		
RF Output Return Loss (dB)	+15V, -5V	8		
Nominal Coupling Factor (dB)	+15V, -5V	13.5	14.4	15.4
Coupling Flatness (dB)	+15V, -5V		+/- 2.1	+/- 2.5
Positive Bias Current (mA)	+15V, -5V		975	
Negative Bias Current (mA)	+15V, -5V		65	80
Operating Temperature (°C)	+15V, -5V	-10		+50

PERFORMANCE FROM 0.9- 4.2GHz (+15V, - 5V, TA = 25°C) (CONTINUED)



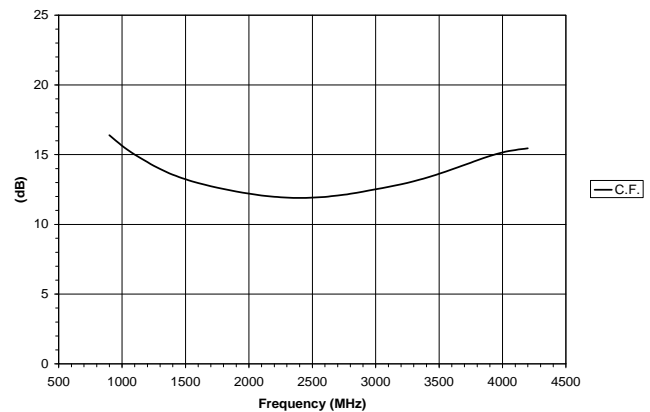
Small Signal Gain, Input/Output Return Loss vs. Frequency



Output Power (P1dB), Saturated Power vs. Frequency

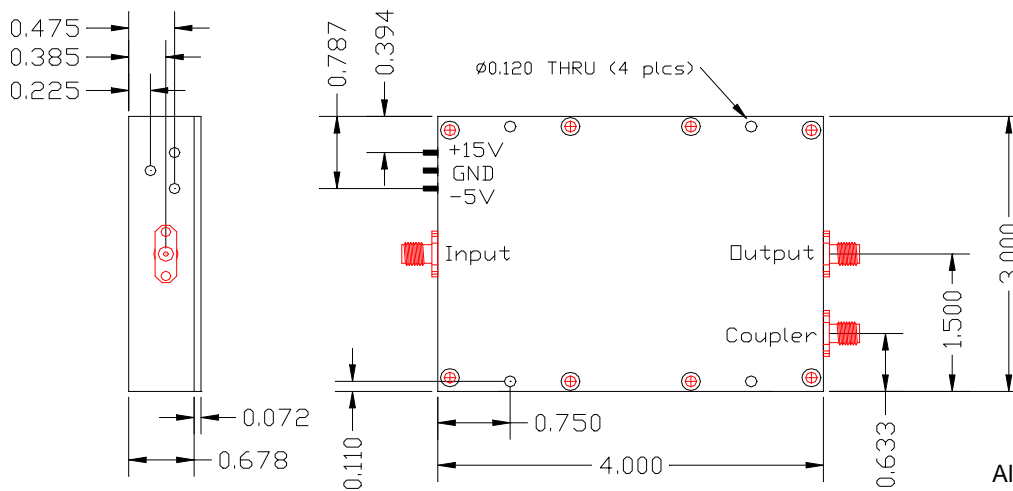
GENERAL PRECAUTIONS

The AM094233SF-3H Power Amplifier is housed in an aluminum housing with SMA female connectors on all RF Ports. The amplifier is designed to operate within specifications when biased with a +15V positive supply and -5V negative supply. Furthermore, the amplifier dissipates an average of 15 Watts and therefore needs to be attached to a heatsink under operation to allow the case temperature to remain well below +55°C.



Monitoring Port Coupling Factor vs. Frequency

PACKAGE OUTLINE



All dimensions are in inches. Tolerance is +/- 0.005"