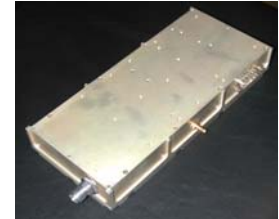


## DESCRIPTION

AMCOM's AM020340SF-3H is a UHF Power Amplifier designed for high power RF applications. The class AB amplifier operates from 225 to 300MHz and delivers a minimum P1dB of +40dBm and a minimum small signal gain of 30dB. The amplifier has an on/off control switch.



## FEATURES

- Covers frequency range from 225 to 300MHz
- High Gain (30dB min.) and High Output Power (40dBm min.) across entire operating frequency band.
- Single Bias Input Supply: 28VDC
- Lowpass output filter with high harmonic rejection.
- Control ON/OFF switch
- 20VDC regulated output supply with voltage detection bit.
- Input VSWR: 2:1 max. Output VSWR: 3:1 max.

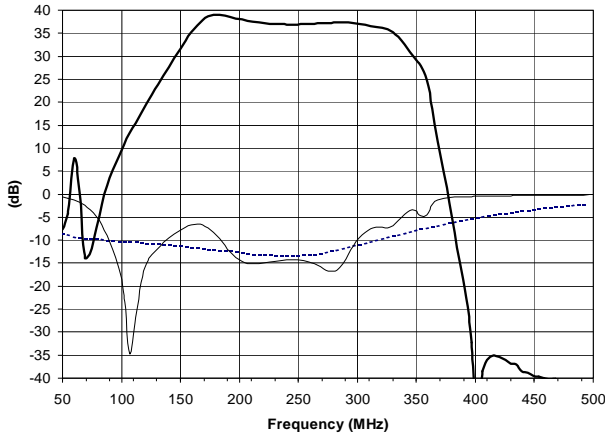
## ABSOLUTE MAXIMUM RATING

Parameters	Rating
Positive Voltage	32V
Input RF Power	+15dBm
Operating Temperature °C	-54 / +71
Storage Temperature °C	-57 / +85

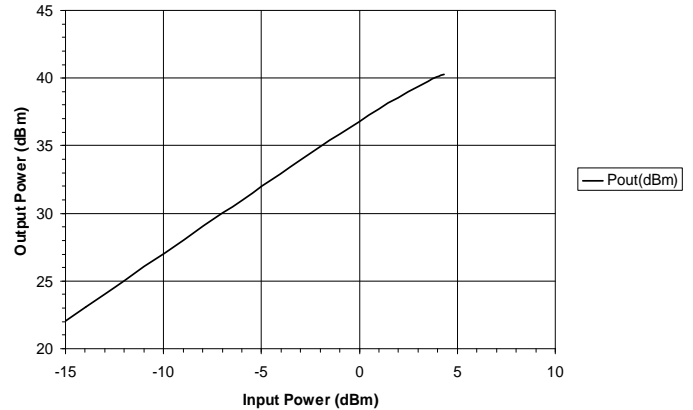
## PERFORMANCE FROM 225- 300 MHz (+28V, TA = 25°C)

Parameters	Specification		
	MIN	TYP	MAX
Frequency Range (MHz)	225	—	300
Power Gain (dB)	30dB	—	—
P1dB (dBm)	40	—	—
Gain variation with Frequency (dB)	—	—	4
Input VSWR	—	—	2.0:1
Output VSWR	—	—	3.0:1
Harmonics (dBc)	—	—	-60
Spurious (dBc)	—	—	-70
Noise Figure (dB)	—	5	9
Efficiency (%)	—	25	—
Turn-on/off Time (msec)	—	—	8
Turn on logic	TTL (logic "1")		
Power Supply (VDC)	—	28	32
Current (A)	—	—	2.75
+20VDC Output	+20V typ. @ 100mA		
+20VDC Regulation (%)	—	0.1	—
+20VDC Ripple Rejection (dB)	—	60	—

PERFORMANCE FROM 225- 300 MHz (+28V, TA = 25°C) (CONTINUED)



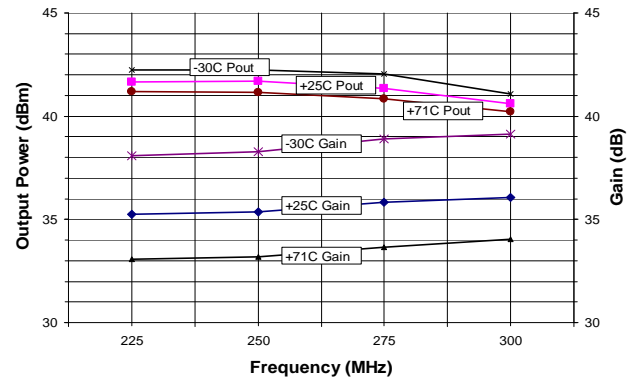
Signal Gain, Input/Output Return Loss vs. Frequency



Typical Input Power vs. Output Power (f=275MHz)

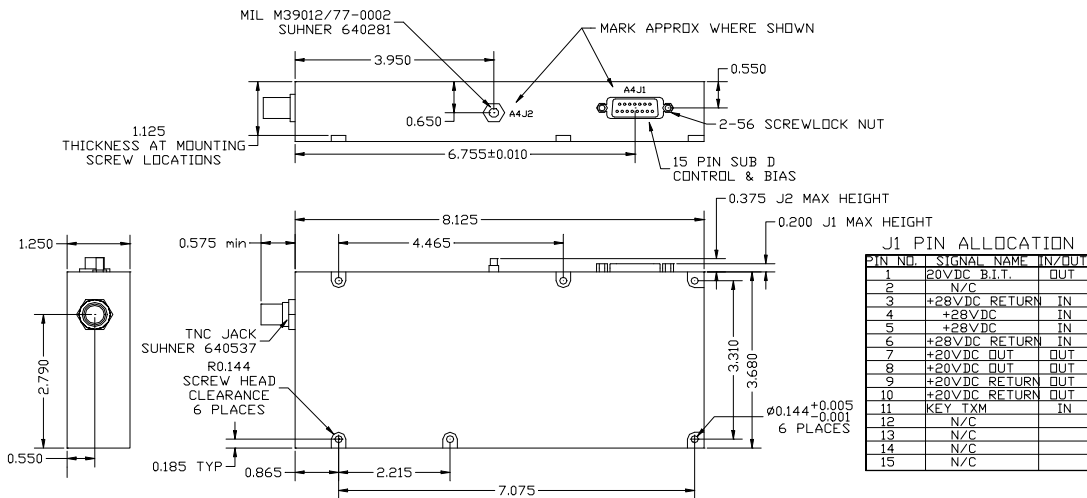
GENERAL PRECAUTIONS

The AM053231SF-3H Power Amplifier is housed in an Aluminum housing with an SMC female RF input connector and a TNC female RF output connector. The amplifier is designed to operate within specifications when biased with +28 VDC. Furthermore, the amplifier dissipates an average of 40 Watts and therefore needs to be attached to a heatsink under operation to allow the case temperature to remain well below +71 °C.



Typical Gain & Output Power vs. Frequency and Temperature

PACKAGE OUTLINE



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