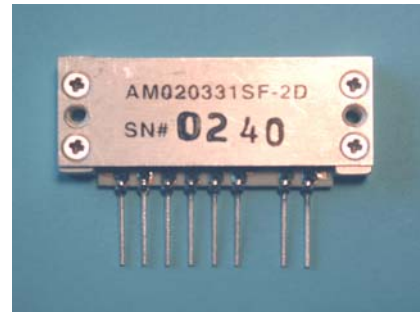


## DESCRIPTION

AMCOM's AM020331SF-2D is a UHF Band Power Amplifier designed for high power RF applications. It operates from 225 to 300MHz and delivers a minimum P1dB of +31dBm and a minimum small signal gain of 20dB. The amplifier is in a drop-in style package.



## FEATURES

- Class A Power Amplifier covers frequency range from 225 to 300MHz
- High Gain (20dB min.) and High Output Power (3dBm min.) across entire operating frequency band.
- Bias Supply: +7V/-5V DC
- On-board sensor to help monitor rise in case temperature.
- Drop-in module for easy system integration.
- Input VSWR: 2:1 max. Output VSWR: 3:1 max.

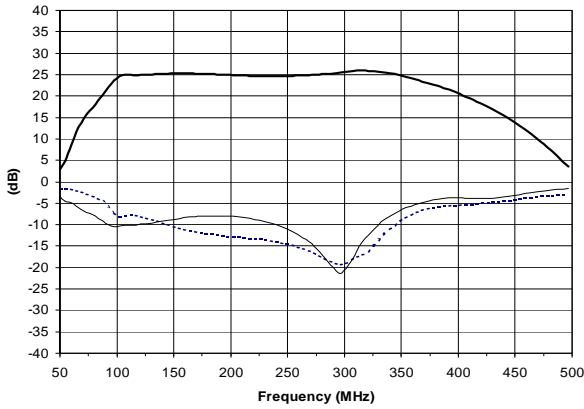
## ABSOLUTE MAXIMUM RATING

Parameters	Rating
Positive Voltage	+8 VDC
Power Dissipation	10 Watts
Operating Temperature °C	-40 min. / +60 max
Storage Temperature °C	-57 min. / +85 max

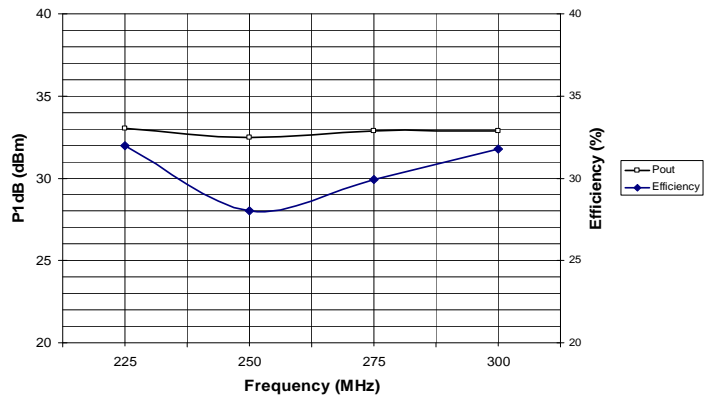
## PERFORMANCE FROM 225-300 MHz (+7V/-5V, TA = 25°C)

Parameters	Specifications		
	MIN	TYP	MAX
Frequency Range (MHz)	225		300
Power Gain (dB)	20dB		
P1dB (dBm)	31		
Gain variation with Frequency (dB)			4
Input VSWR			2.0:1
Output VSWR			3.0:1
Harmonics (dBc)			-20
Spurious (dBc)			-70
Noise Figure (dB)			7
Efficiency (%)		25	
Positive Supply (VDC)		7	8
Negative Supply (VDC)	N/A	-5	N/A
Positive Supply Current (A)			1.2

PERFORMANCE FROM 225 - 300MHz (+7V/-5V, TA = 25°C) (CONTINUED)



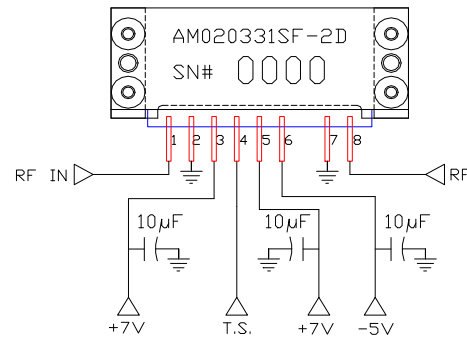
Small Signal Gain, Input/Output Return Loss vs. Frequency



Output Power (P1dB), Saturated Power vs. Frequency

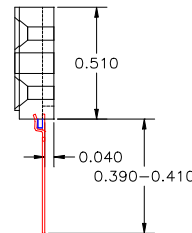
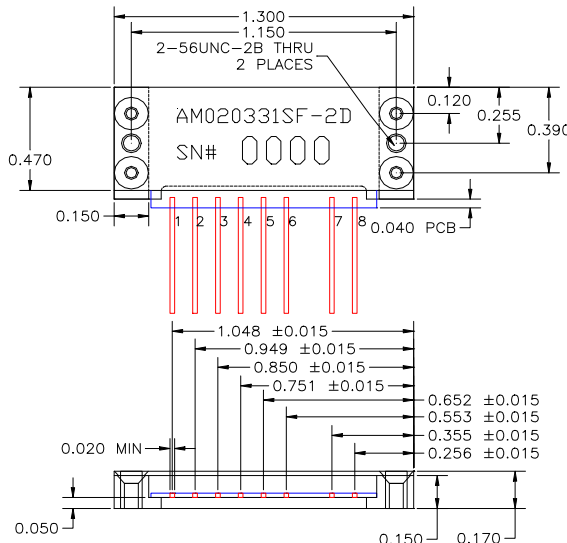
GENERAL PRECAUTIONS

The AM020331SF-2D Power Amplifier is in a drop-in style module designed for easy integration on system boards. The amplifier is designed to operate within specifications when biased with +7V/-5V DC. The unit needs to be sequentially biased with -5V applied before the positive supply. Furthermore, the amplifier dissipates an average of 7 watts and therefore needs to be attached to a heatsink under operation to allow the case temperature to remain well below +60°C.



Circuit Schematic Showing Recommended Configuration

PACKAGE OUTLINE



- PIN ASSIGNMENTS
1. RF IN
  2. GND
  3. +7V
  4. TEMP SENSOR
  5. +7V
  6. -5V
  7. GND
  8. RF OUT

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