

Available as:

TM6108, 4 Pin TO-8 (T4)
 TN6108, 4 Pin 0.450" Sq. Surface Mount (SM3)
 BX6108, SMA Connectorized Housing (H1)

RF/Microwave Amplifier



Features

- Low Noise Figure: 3.3 dB
- Wide 1 – 250 MHz Bandwidth
- Environmental Screening Available
- Unconditionally Stable

Technical Specifications

Characteristic		TYPICAL Ta = +25 °C	MIN/MAX Ta = -55°C to +85 °C
Frequency		1 – 250 MHz	1 – 150 MHz
Gain (dB)		15	14 Min.
Power @ 1 dB Comp. (dBm)*		+25	+23.5 Min.
Reverse Isolation (dB)		-28	--
VSWR	In	1.75:1	2.0:1 Max.
	Out	1.75:1	2.0:1 Max.
Noise Figure (dB)**		3.3	4.5 Max.
Power*	Vdc	+15	+15
	mA	135	140 Max.

Typical Intermodulation Performance at 25 °C

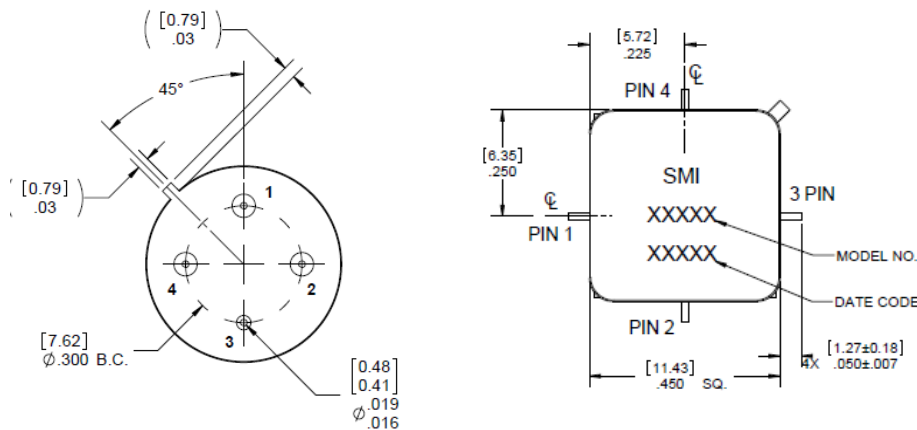
Second Order Harmonic Intercept Point:	+66 dBm (Typ.)
Second Order Two Tone Intercept Point:	+60 dBm (Typ.)
Third Order Two Tone Intercept Point:	+43 dBm (Typ.)

Note: Measured at 50 MHz at 25C.

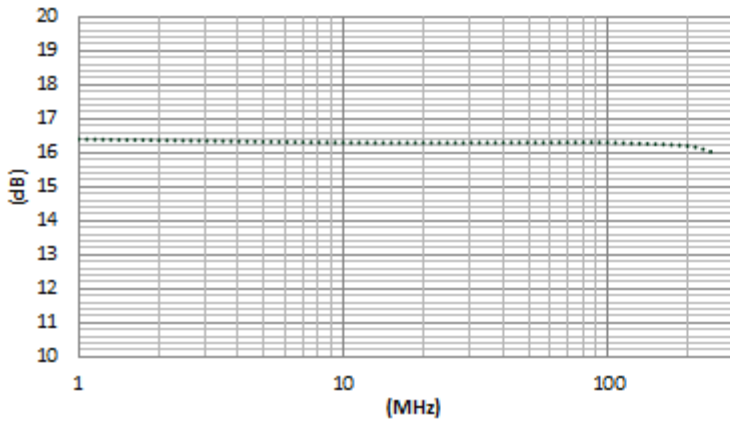
Absolute Maximum (No Damage) Ratings

Operating Temperature	-55°C to +100 °C
Storage Temperature	-62°C to +125°C
Case Temperature	+125 °C
DC Voltage	+18 Volts
Continuous RF Input Power	+17 dBm
Short Term RF Input Power	100 Milliwatts (1 Minute Max.)
Maximum Peak Power	0.5 Watt (3 µsec Max.)

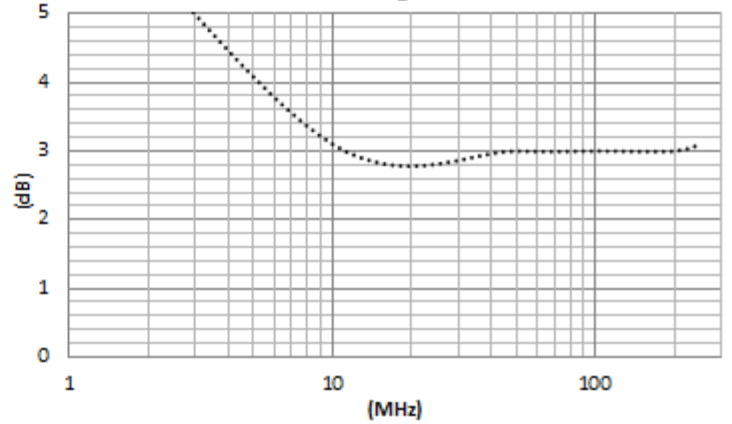
- 1) Care should always be taken to effectively ground the case of each unit
 - 2) Typical values are measured at 25°C, but not guaranteed.
 - 3) Package drawings below are for reference only.
- *Power Output @1 dB Compression: 1 dB lower below 2 MHz.
 **Noise Figure: 10-150 MHz.



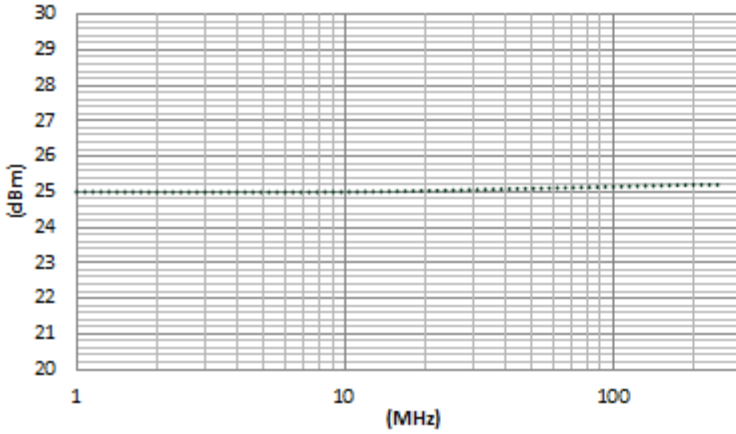
Gain



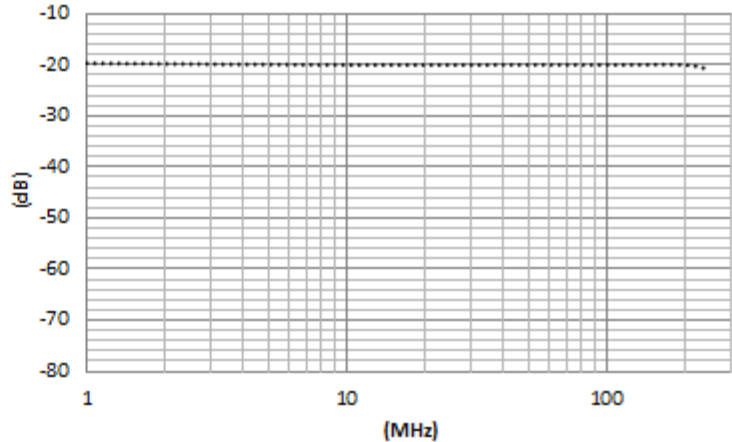
Noise Figure



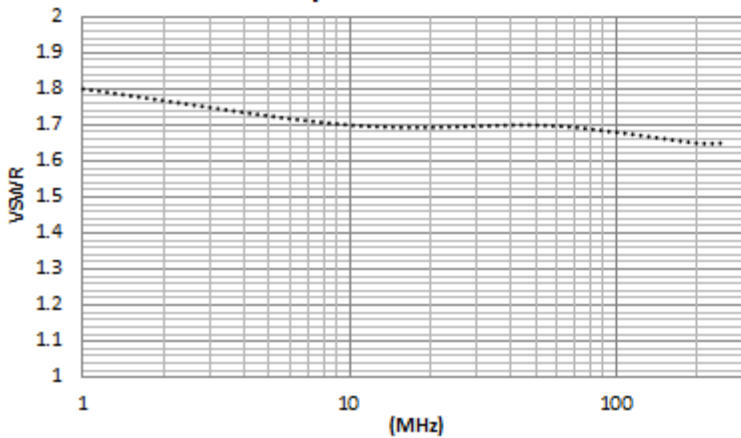
Output Power (1 dB Compression)



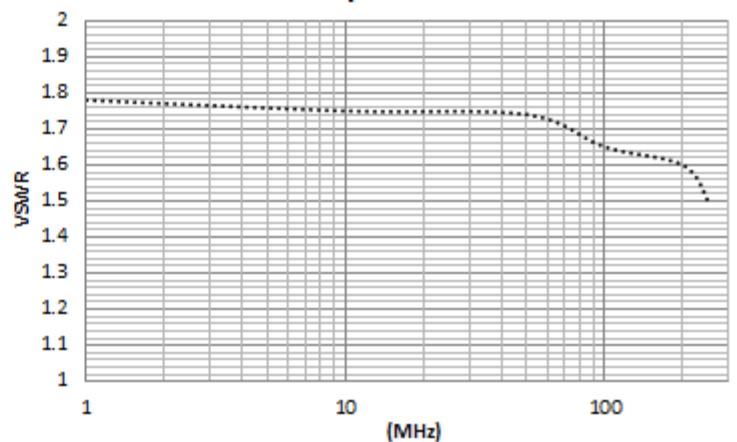
Reverse Isolation



Input VSWR



Output VSWR



Instructions

Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (ohm) system.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

1) Outlines drawings below are for reference only.

NOTES:

1. HOUSING: ALUMINUM
2. FINISH: NICKEL

