

AS6054

1000 TO 6000 MHz SMT0-8 CASCADABLE AMPLIFIER

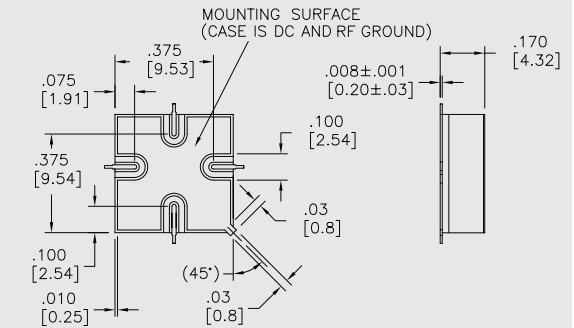
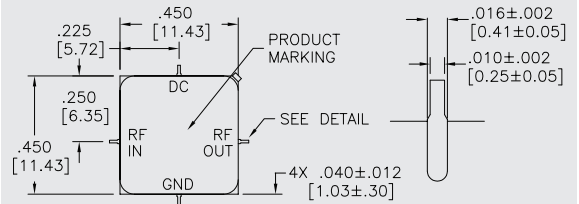
Typical Values

High Gain	19.0 dB
Low Noise Figure	<4.3 dB
High Output Level	+19.0 dBm
High Performance Thin Film	
Standard Size SMT0-8	

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SMT0-8 Package for Amplifiers



SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	1.0-6.0 GHz	1.0-6.0 GHz	1.0-6.0 GHz
Small Signal Gain (Min.)	20.0 [^] dB	19.0 [^] dB	18.0 [^] dB
Gain Flatness (Max.)	±0.8 dB	±1.0 dB	±1.4 dB
Noise Figure (Max.)	<4.3 dB	4.8 dB	5.2 dB
SWR (Max.)	Input 1.7:1 Output 1.7:1	1.9:1 1.9:1	2.0:1 2.4:1
Power Output (Min.) @ 1dB comp.	+19.0 dBm	+17.5 dBm	+17.0 dBm
Reverse Isolation	28.0 dB	—	—
DC Current (Max.)	<90.0 mA	95.0 mA	100.0 mA

* Measured in a 50-ohm system at +5 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C; 3500 MHz

+5 Volts

Second Order Harmonic Intercept Point	+47 dBm
Second Order Two Tone Intercept Point	+40 dBm
Third Order Two Tone Intercept Point	+30 dBm

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+8 Volts
Maximum Continuous RF Input Power	+15 dBm
Maximum Short Term Input Power (1 Minute Max.)	100 Milliwatts
Maximum Peak Power (3 μsec Max.)	0.5 Watt
Burn-in Temperature	+125 °C
Thermal Resistance¹ (θjc)	+45 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+25.7 °C

¹ Thermal resistance is based on total power dissipation.

DIMENSIONS ARE IN INCHES [MILLIMETERS]