

AS6004

2000 TO 6000 MHz SMT0-8 CASCADABLE AMPLIFIER

Typical Values	AS6004
High Gain	20.5 dB
Low Noise Figure	2.7 dB
High Output Level	+19.0 dBm
High Performance Thin Film Standard Size SMT0-8	

SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	2.0-6.0 GHz	2.0-6.0 GHz	2.0-6.0 GHz
Small Signal Gain (Min.)	20.5 dB	19.5 dB	19.0 dB
Gain Flatness (Max.)	±0.5 dB	±0.8 dB	±1.0 dB
Noise Figure (Max.)	2.7 dB	3.0 dB	3.5 dB
SWR (Max.) Input/Output	1.7:1	2.0:1	2.1:1
Power Output (Min.) @ 1dB comp.	+19.0 dBm	+17.0 dBm	+16.0 dBm
Reverse Isolation	35.0 dB	—	—
DC Current (Max.)	138 mA	142 mA	147 mA

* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C; 3500 MHz	+15 Volts
Second Order Harmonic Intercept Point	+41 dBm
Second Order Two Tone Intercept Point	+38 dBm
Third Order Two Tone Intercept Point	+30 dBm

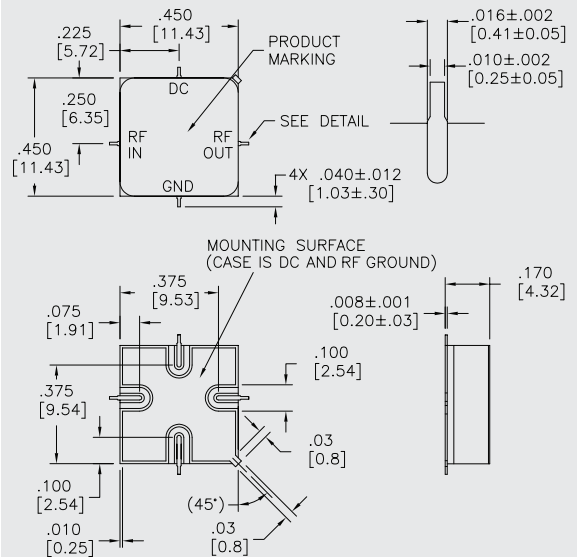
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+18 Volts
Maximum Continuous RF Input Power	+17 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 Resistance ¹ (θjc)	+39.5 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+80.0 °C

¹ Thermal resistance is based on total power dissipation.

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SMT0-8 Package for Amplifiers



DIMENSIONS ARE IN INCHES [MILLIMETERS]