TELEDYNE COUGAR
A Teledyne Technologies Company

PRELIMINARY

AC2554

1000 TO 2500 MHz TO-8 CASCADABLE AMPLIFIER

Typical Values	AC2554
High Gain	25.0 dB
Low Noise Figure	1.9 dB
Medium Output Power	+15.5 dBm
High Performance Thin Film	
Standard Size TO-8 Package	

SPECIFICATIONS*

Parameter		Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)		900-2500 MHz	1000-2500 MHz	1000-2500 MHz
Small Signal Gain (Min.)		25.0 dB	24.0 dB	23.5 dB
Gain Flatness (Max.)		±0.6 dB	±0.8 dB	±1.0 dB
Noise Figure (Max.)		1.9 dB	2.3 dB	2.6 dB
SWR (Max.)	Input Output	1.7:1 1.5:1	1.9:1 1.7:1	2.0:1 1.8:1
Power Output (Min.) @ 1dB comp.		+15.5 dBm	+14.5 dBm	+14.0 dBm
DC Current (Max.)		75 mA	78mA	80 mA

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

INTERMODULATION PERFORMANCE

Typical @ 25 °C	AC2554
Second Order Harmonic Intercept Point	+51 dBm
Second Order Two Tone Intercept Point	+45 dBm
Third Order Two Tone Intercept Point	+26 dBm

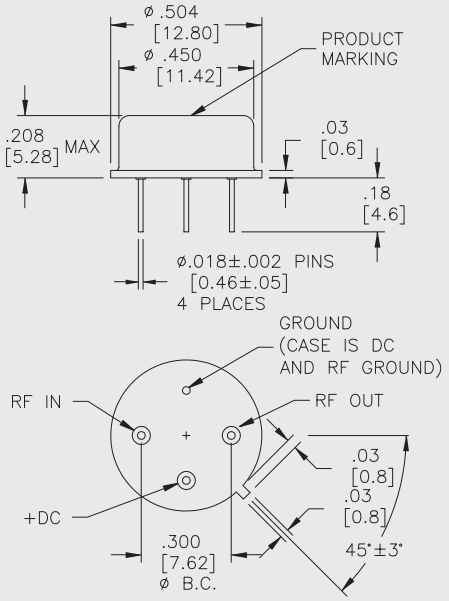
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+10 Volts
Maximum Continuous RF Input Power	+7 dBm
Burn-in Temperature	+125 °C
Thermal Resistance[1] (θjc)	51 °C/Watt
Junction Temperature Rise Above Case (Tjc)	19.5 °C

[1] Thermal resistance is based on total power dissipation.

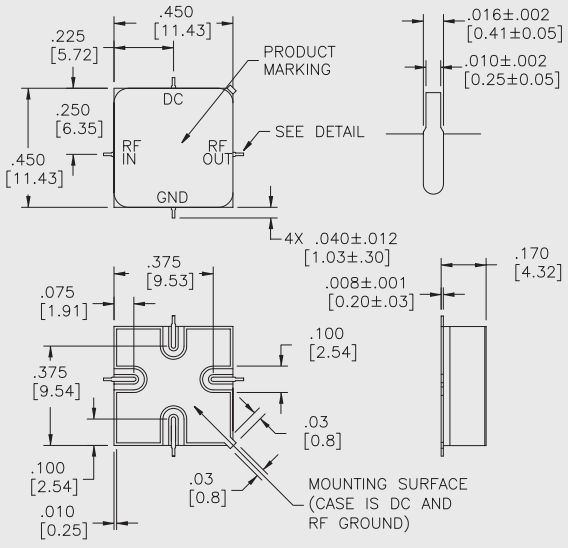
AC2554

TO-8 Package for Amplifiers



AS2554

SMTO-8 Package for Amplifiers



DIMENSIONS ARE IN INCHES [MILLIMETERS]