TELEDYNE COUGAR
A Teledyne Technologies Company

PRELIMINARY

AC3586

3000 TO 3600 MHz TO-8 CASCADABLE AMPLIFIER

Typical Values	AC3586
Ultra Low Noise Figure	1.2 dB
High Gain	19.0 dB
High Performance Thin Film	
Standard Size TO-8 Package	

SPECIFICATIONS*

Parameter	Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)	2900-3600 MHz	3000-3600 MHz	3000-3600 MHz
Small Signal Gain (Min.)	19.0 dB	18.0 dB	17.5 dB
Gain Flatness (Max.)	±0.5 dB	±0.8 dB	±1.0 dB
Noise Figure (Max.)	1.2 dB	1.4 dB	1.7 dB
SWR (Max.) Input/Output	1.5:1	1.8:1	1.9:1
Power Output (Min.) @ 1dB comp.	+12.5 dBm	+11.5 dBm	+11.0 dBm
DC Current (Max.)	45 mA	48 mA	51 mA

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

INTERMODULATION PERFORMANCE

Typical @ 25 °C	AC3586
Second Order Harmonic Intercept Point	+48 dBm
Second Order Two Tone Intercept Point	+42 dBm
Third Order Two Tone Intercept Point	+25 dBm

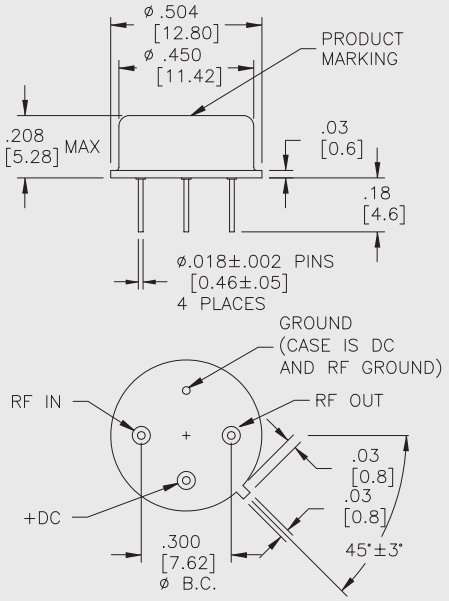
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+17 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	+100 °C
Thermal Resistance[1] (θjc)	— °C/Watt
Junction Temperature Rise Above Case (Tjc)	— °C

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

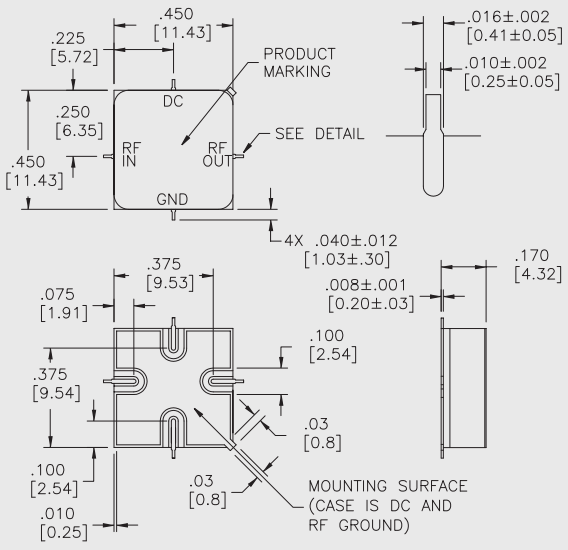
AC3586

TO-8 Package for Amplifiers



AS3586

SMTO-8 Package for Amplifiers



DIMENSIONS ARE IN INCHES [MILLIMETERS]