TELEDYNE COUGAR
A Teledyne Technologies Company

PRELIMINARY

AC2386

1700 TO 2300 MHz TO-8 CASCADABLE AMPLIFIER

Typical Values	AC2386
High Gain	22.0 dB
Ultra Low Noise Figure	1.3 dB
Medium Output Power	+12.0 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.)	1600-2300 MHz	1700-2300 MHz	1700-2300 MHz
Small Signal Gain (Min.)	22.0 dB	21.0 dB	20.5 dB
Gain Flatness (Max.)	±0.7 dB	±0.9 dB	±1.0 dB
Noise Figure (Max.)	1.3 dB	1.6 dB	1.9 dB
SWR (Max.) Input/Output	1.4:1	1.6:1	1.8:1
Power Output (Min.) @ 1dB comp.	+12.0 dBm	+11.0 dBm	+10.0 dBm
DC Current (Max.)	40 mA	43 mA	46 mA

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

INTERMODULATION PERFORMANCE

Typical @ 25 °C	AC2386
Second Order Harmonic Intercept Point	+47 dBm
Second Order Two Tone Intercept Point	+41 dBm
Third Order Two Tone Intercept Point	+24 dBm

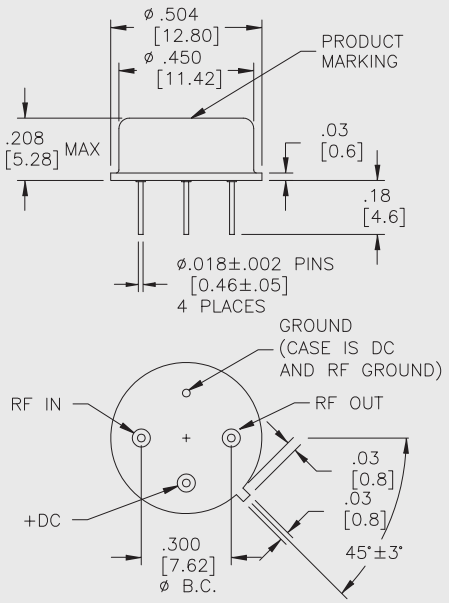
ABSOLUTE MAXIMUM RATINGS

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.

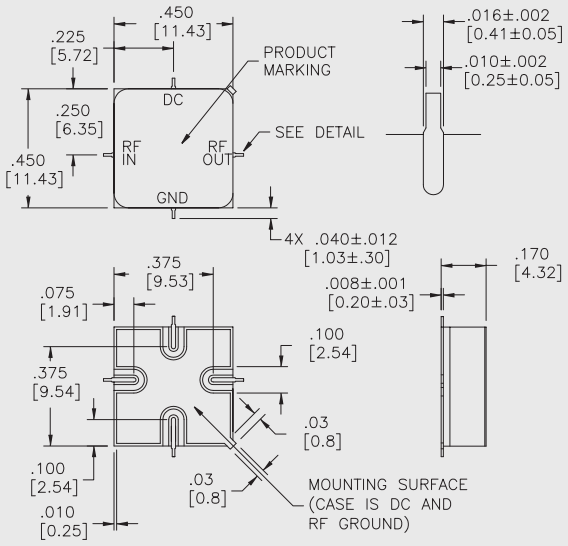
AC2386

TO-8 Package for Amplifiers



AS2386

SMTO-8 Package for Amplifiers



DIMENSIONS ARE IN INCHES [MILLIMETERS]