TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

PRELIMINARY

AC085

1 TO 150 MHz TO-8 CASCADABLE AMPLIFIER

Typical Values	AC085
Low Noise Figure	1.5 dB
Medium Output Power	+13.0 dBm
Medium Gain	18.0 dB

High Performance Thin Film
Standard Size TO-8 Package
Available in Surface Mount

SPECIFICATIONS*

Parameter	Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)	1-85 MHz	1-85 MHz	1-85 MHz
Small Signal Gain (Min.)	18.5 dB	17.5 dB	17.0 dB
Gain Flatness (Max.)	±0.4 dB	±0.5 dB	±0.7 dB
Noise Figure (Max.) 10-150 MHz	1.5 dB	1.7 dB	1.9 dB
SWR (Max.) Input/Output	<1.3:1	1.5:1	1.8:1
Power Output (Min.) @ 1 dB comp.	+14.0 dBm	+13.5 dBm	+13.0 dBm
Reverse Isolation	29.0 dB	—	—
DC Current (Max.)	35.0 mA	40.0 mA	45.0 mA

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

INTERMODULATION PERFORMANCE

Typical @ 25 °C	+5 Volts
Second Order Harmonic Intercept Point	+46 dBm
Second Order Two Tone Intercept Point	+42 dBm
Third Order Two Tone Intercept Point	+30 dBm

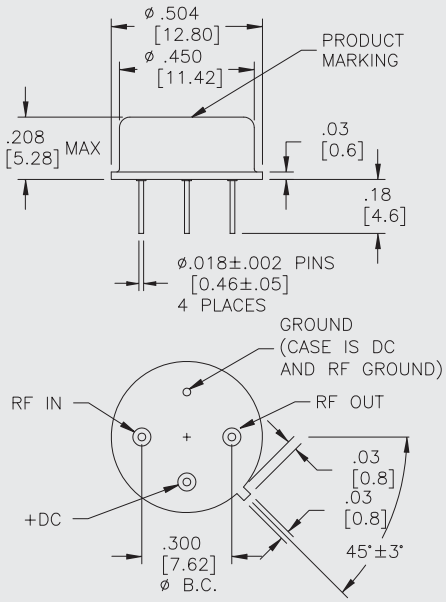
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+12 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 (+5 Volts)	+125 °C
Thermal Resistance[1] (θjc; +5 Volts)	+157.1 °C/Watt
Junction Temperature Rise Above Case (Tjc; +5 Volts)	+16.5 °C

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

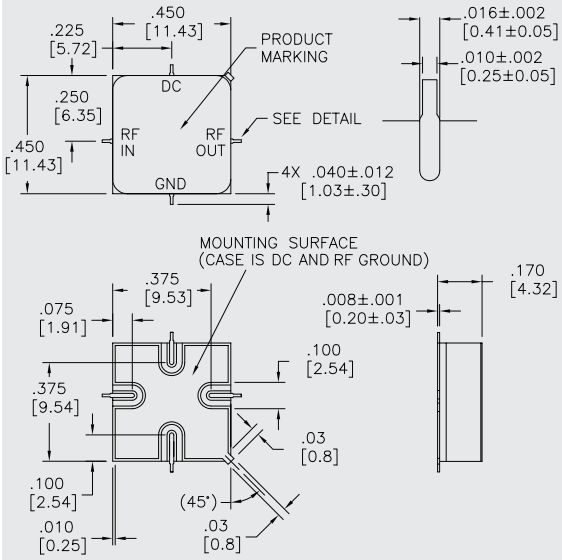
AC085

TO-8 Package for Amplifiers



AS085

SMTO-8 Package for Amplifiers



If DC is present on RF input/output, this model requires additional external blocking capacitors.

DIMENSIONS ARE IN INCHES [MILLIMETERS]