TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

PRELIMINARY

ACP8017 3.0-8.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	ACP8017
High Output Power	**21.5 dBm**
Medium Noise	**4.2 dB**
Ultra Broad Bandwidth	**3.0-8.0 GHz**

High Performance Thin Film
Standard Single-stage CougarPak™ Package

SPECIFICATIONS*

Parameter	Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)	**3.0-8.0 GHz**	**3.0-8.0 GHz**	**3.0-8.0 GHz**
Small Signal Gain (Min.)	11.5 dB	11.0 dB	10.5 dB
Gain Flatness (Max.)	±0.5 dB	±0.7 dB	±1.0 dB
Noise Figure (Max.)	4.2 dB	5.2 dB	5.7 dB
SWR (Max.) Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+21.5 dBm	+20.0 dBm	+21.0 dBm
Reverse Isolation	27 dB	—	—
DC Current (Max.)	125 mA	130 mA	140 mA

* Measured in a 50-ohm system at +12 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C	ACP8017
Second Order Harmonic Intercept Point	+54 dBm
Second Order Two Tone Intercept Point	+48 dBm
Third Order Two Tone Intercept Point	+31 dBm

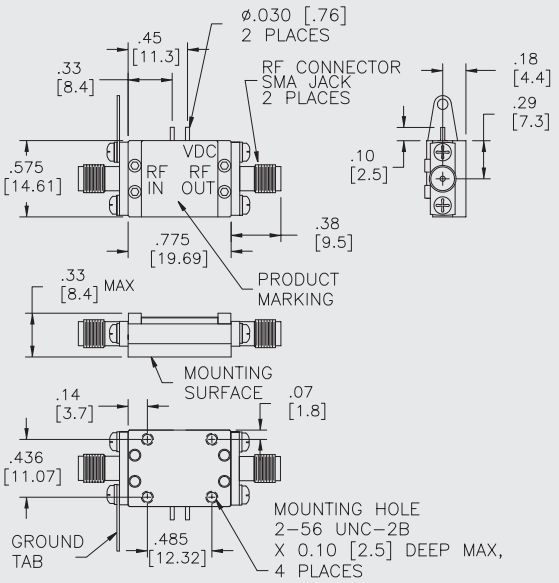
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+17 Volts
Maximum Continuous RF Input Power	+15 dBm
Maximum Short Term Input Power (1 Minute Max.)	100 Milliwatts
Maximum Peak Power (3 µsec Max.)	1.0 Watt
Burn-in Temperature	+125 °C
Thermal Resistance[1] (θjc)	— °C/Watt
Junction Temperature Rise Above Case (Tjc)	— °C

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

ACP8017

CougarPak™ Connectorized Package (single-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]