TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

Rev. 5/16

ACP8039 2.0-8.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	ACP8039
High Output Power	**+29 dBm**
Ultra Broad Bandwidth	**2.0-8.0 GHz**
High Third Order I.P.	**+38 dBm**

High Performance Thin Film
Standard Single-stage CougarPak™ Package

SPECIFICATIONS*

Parameter	Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)	**2.0-8.0 GHz**	**2.0-8.0 GHz**	**2.0-8.0 GHz**
Small Signal Gain (Min.)	10.8 dB	10.0 dB	9.5 dB
Gain Flatness (Max.)	±0.6 dB	±0.8 dB	±1.5 dB
Noise Figure (Max.)^ 5-8 GHz	4.0 dB	5.5 dB	6.0 dB
SWR (Max.) Input/Output	1.5:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+29.0 dBm	+28.0 dBm	+27.5 dBm
Reverse Isolation	27 dB	—	—
DC Current (Max.)	340 mA	400 mA	430 mA

* Measured in a 50-ohm system at +12 Vdc unless otherwise specified.
^ 3.0 dB higher below 5 GHz.

INTERMODULATION PERFORMANCE

Typical @ 25 °C	ACP8039
Second Order Harmonic Intercept Point	+62 dBm
Second Order Two Tone Intercept Point	+56 dBm
Third Order Two Tone Intercept Point	+38 dBm

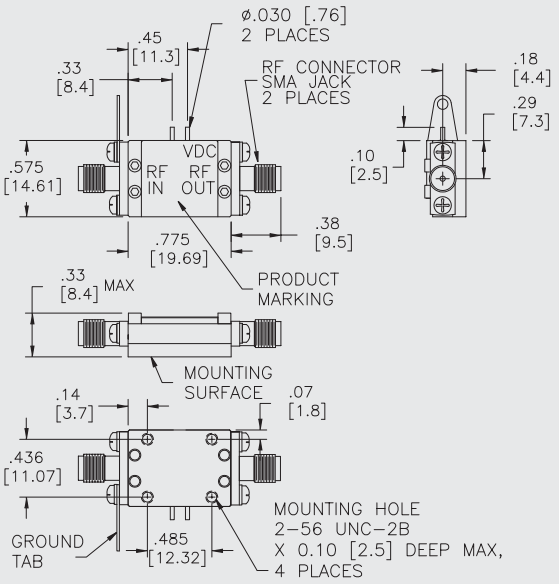
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+14 Volts
Maximum Continuous RF Input Power	+17 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)	11.9 °C/Watt
Junction Temperature Rise Above Case (Tjc)	48.6 °C

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

ACP8039

CougarPak™ Connectorized Package (single-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]