

ACP8039 2.0-8.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	ACP8039
High Output Power	1 Watt
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	-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.)	4.0 dB	4.5 dB	5.0 dB
SWR (Max.) Input/Output	1.5:1	1.6:1	1.7:1
Power Output (Min.) @ 1dB comp.	+30.0 dBm	+28.5 dBm	+28.0 dBm
Reverse Isolation	27 dB	—	—
DC Current (Max.)	410 mA	440 mA	470 mA

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

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

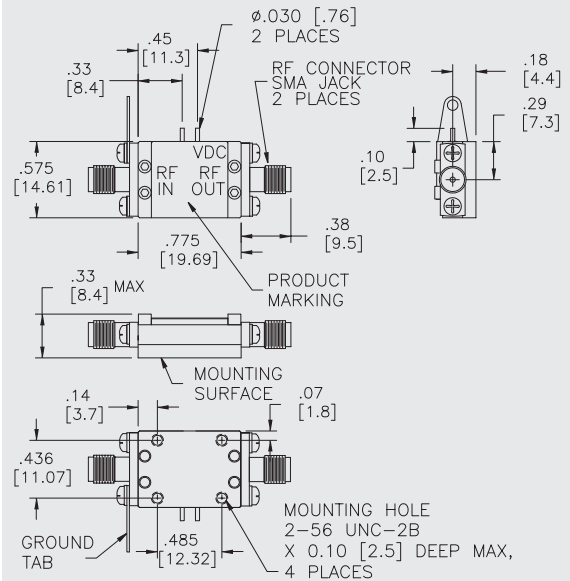
ABSOLUTE MAXIMUM RATINGS

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)	— °C/Watt
Junction Temperature Rise Above Case (Tjc)	— °C

¹ Thermal resistance is based on total power dissipation.

ACP8039

CougarPak™ Connectorized Package (single-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]