TELEDYNE COUGAR
A Teledyne Technologies Company

PRELIMINARY

ACP11039 5.0-11.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	ACP11039
High Output Level	1 Watt
High Third Order I.P.	+38 dBm
Ultra Broad Bandwidth	5.0-11.0 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.)	5.0-11.0 GHz	5.0-11.0 GHz	5.0-11.0 GHz
Small Signal Gain (Min.)	8.5 dB	7.5 dB	7.0 dB
Gain Flatness (Max.)	±0.6 dB	±0.8 dB	±1.0 dB
Noise Figure (Max.)	4.0 dB	6.0 dB	6.5 dB
SWR (Max.) Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+30.0 dBm	+28.5 dBm	+28.0 dBm
Reverse Isolation	25 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	ACP11039
Second Order Harmonic Intercept Point	+62 dBm
Second Order Two Tone Intercept Point	+56 dBm
Third Order Two Tone Intercept Point	+38 dBm

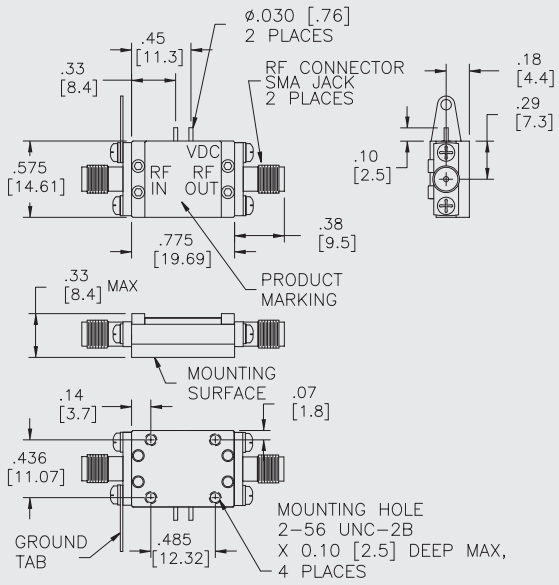
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+14 Volts
Maximum Continuous RF Input Power	+25 dBm
Maximum Short Term Input Power (1 Minute Max.)	100 Milliwatts
Maximum Peak Power (3 µsec Max.)	1.0 Watt
Burn-in Temperature	— °C
Thermal Resistance[1] (θjc)	— °C/Watt
Junction Temperature Rise Above Case (Tjc)	— °C

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

ACP11039

CougarPak™ Connectorized Package (single-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]