TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

PRELIMINARY

A2CP12029 — 6.0 TO 12.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	A2CP12029
High Gain	23.0 dB
High Output Level	0.5 Watt
High Third Order I.P.	+37 dBm
High Second Order I.P.	+51 dBm
High Reverse Isolation	35 dB

High Performance Thin Film
Standard Two-stage CougarPak™ Package

SPECIFICATIONS*

Parameter	Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)	**5.0-12.0 GHz**	**6.0-12.0 GHz**	**6.0-12.0 GHz**
Small Signal Gain (Min.)	23.0 dB	20.5 dB	20.0 dB
Gain Flatness (Max.)	±0.8 dB	±1.6 dB	±1.6 dB
Noise Figure (Max.)	4.0 dB	4.5 dB	5.0 dB
SWR (Max.) Input/Output	1.8:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.	+27.5 dBm	+26.5 dBm	+26.0 dBm
Reverse Isolation	35 dB	—	—
DC Current (Max.)	335 mA	342 mA	350 mA

* Measured in a 50-ohm system at +10 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C	A2CP12029
Second Order Harmonic Intercept Point	+57 dBm
Second Order Two Tone Intercept Point	+51 dBm
Third Order Two Tone Intercept Point	+37 dBm

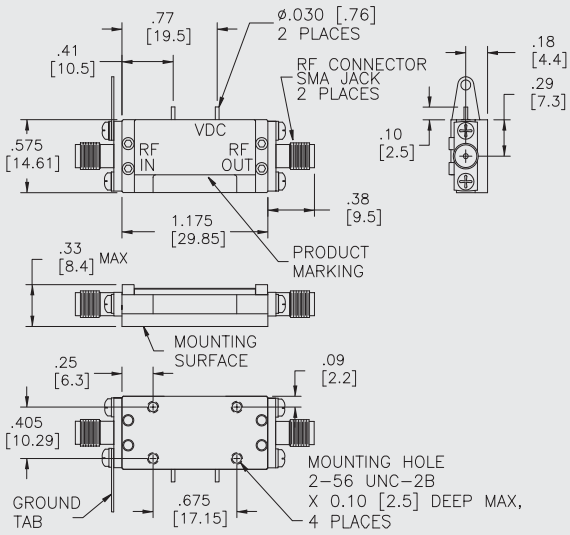
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+85 °C
Maximum DC Voltage	+12 Volts
Maximum Continuous RF Input Power	+13 dBm
Maximum Short Term Input Power (1 Minute Max.)	+17 dBm
Maximum Peak Power (3 µsec Max.)	+20 dBm
Burn-in Temperature	+85 °C
Thermal Resistance[1] (θjc)	+18.2 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+62.1 °C

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

A2CP12029

High Frequency CougarPak™ SMA Package (two-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]