

# 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	-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

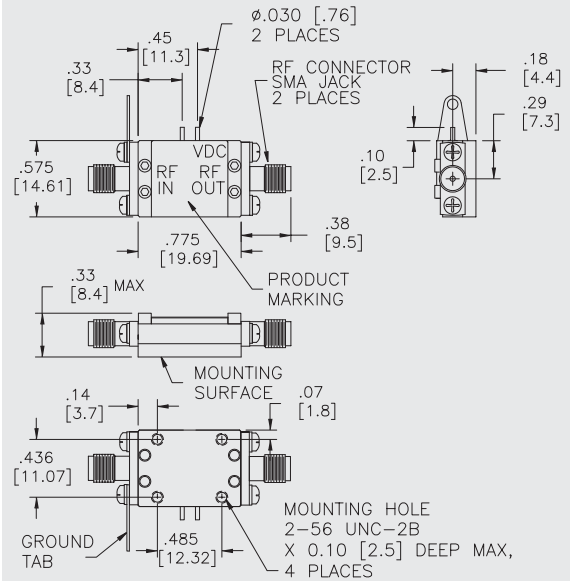
## ABSOLUTE MAXIMUM RATINGS

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 <sup>1</sup> (θ <sub>jc</sub> ) .....	— °C/Watt
Junction Temperature Rise Above Case (T <sub>jc</sub> ) .....	— °C

<sup>1</sup> Thermal resistance is based on total power dissipation.

## ACP8017

### CougarPak™ Connectorized Package (single-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]