

# A3CP2123

# 10 TO 2000 MHz COUGARPAK™ AMPLIFIER

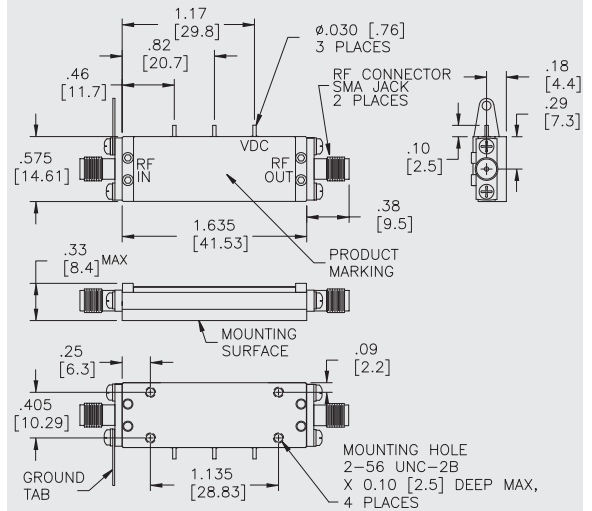
**Typical Values**

<b>High Gain</b> .....	<b>42.0 dB</b>
<b>Low Noise Figure</b> .....	<b>3.1 dB</b>
<b>High Output Level</b> .....	<b>+23.5 dBm</b>
<b>High Third Order I.P.</b> .....	<b>+33 dBm</b>
<b>High Reverse Isolation</b> .....	<b>53 dB</b>
<b>High Performance Thin Film</b>	
<b>Standard Three-stage CougarPak™ Package</b>	

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



## SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	5-2100 MHz	10-2000 MHz	10-2000 MHz
Small Signal Gain (Min.)	42.0 dB	38.0 dB	36.0 dB
Gain Flatness (Max.)	±0.7 dB	±0.9 dB	±1.2 dB
Noise Figure (Max.) 100-2000 MHz	3.1 dB	3.7 dB	4.2 dB
SWR (Max.) Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+23.5 dBm	+22.5 dBm	+22.0 dBm
Reverse Isolation	53 dB	—	—
DC Current (Max.)	233 mA	245 mA	253 mA

\* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

## INTERMODULATION PERFORMANCE

**Typical @ 25 °C**

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<b>Second Order Harmonic Intercept Point</b> .....	<b>+56 dBm</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+50 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+33 dBm</b>

## ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	<b>-62 to +125 °C</b>
<b>Maximum Case Temperature</b> .....	<b>+125 °C</b>
<b>Maximum DC Voltage</b> .....	<b>+17 Volts</b>
<b>Maximum Continuous RF Input Power</b> .....	<b>-1 dBm</b>
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	<b>50 Milliwatts</b>
<b>Maximum Peak Power (3 μsec Max.)</b> .....	<b>0.5 Watt</b>
<b>Burn-in Temperature</b> .....	<b>+105 °C</b>
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	<b>+21 °C/Watt</b>
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	<b>+39.5 °C</b>

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

DIMENSIONS ARE IN INCHES [MILLIMETERS]