

# A3CP6025

# 0.01 - 6.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	A3CP6025
High Power Output .....	+25.0 dBm
High Gain .....	24.0 dB
High Third Order I.P. ....	+34 dBm
High Reverse Isolation. ....	50 dB
High Performance Thin Film Standard Three-stage CougarPak™ Package	

## SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
<b>Frequency (Min.)</b>	0.01-6.0 GHz	0.01-6.0 GHz	0.01-6.0 GHz
<b>Small Signal Gain (Min.)</b>			
10-4500 MHz	24.0 dB	23.5 dB	22.5 dB
4500-6000 MHz	22.5 dB	21.0 dB	20.5 dB
<b>Gain Flatness (Max.)</b>			
10-4500 MHz	±1.1 dB	±1.3 dB	±1.4 dB
4500-6000 MHz	±1.1 dB	±1.4 dB	±1.6 dB
<b>Noise Figure (Max.)</b>			
50-3000 MHz	5.5 dB	6.0 dB	6.5 dB
3000-6000 MHz	4.5 dB	5.0 dB	5.5 dB
<b>SWR (Max.)</b>			
Input 10-6000 MHz	1.8:1	2.2:1	2.4:1
Output 10-4500 MHz	2.0:1	2.6:1	2.8:1
4500-6000 MHz	1.8:1	2.2:1	2.3:1
<b>Power Output (Min.)</b> @ 1dB comp.	+25.0 dBm	+24.0 dBm	+23.5 dBm
<b>Reverse Isolation</b>	50 dB	—	—
<b>DC Current (Max.)</b>	300 mA	325 mA	350 mA

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

## INTERMODULATION PERFORMANCE

Typical @ 25 °C	A3CP6025
Second Order Harmonic Intercept Point .....	+60 dBm
Second Order Two Tone Intercept Point .....	+54 dBm
Third Order Two Tone Intercept Point .....	+34 dBm

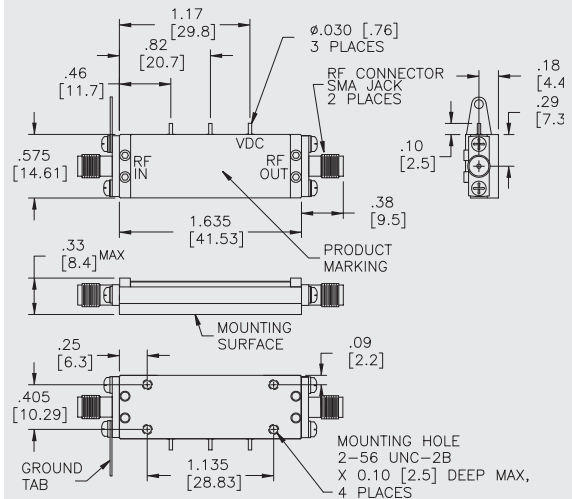
## ABSOLUTE MAXIMUM RATINGS

Storage Temperature .....	-65 to +150 °C
Maximum Case Temperature .....	+85 °C
Maximum DC Voltage .....	+17 Volts
Maximum Continuous RF Input Power .....	+18 dBm
Maximum Short Term Input Power (1 Minute Max.) .....	+22 dBm
Maximum Peak Power (3 μsec Max.) .....	+25 dBm
Burn-in Temperature .....	+85 °C
Thermal Resistance <sup>1</sup> (θjc) .....	16.5 °C/Watt
Junction Temperature Rise Above Case (Tjc) .....	74.3 °C

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

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



DIMENSIONS ARE IN INCHES [MILLIMETERS]