

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
Frequency (Min.)	0.01-6.0 GHz	0.01-6.0 GHz	0.01-6.0 GHz
Small Signal Gain (Min.)			
10-4500 MHz	24.0 dB	23.5 dB	23.0 dB
4500-6000 MHz	22.5 dB	21.0 dB	20.5 dB
Gain Flatness (Max.)			
10-4500 MHz	±1.1 dB	±1.3 dB	±1.4 dB
4500-6000 MHz	±1.1 dB	±1.4 dB	±1.6 dB
Noise Figure (Max.)			
50-3000 MHz	4.5^ dB	5.5^ dB	6.0^ dB
SWR (Max.)			
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
Power Output (Min.) @ 1dB comp.	+25.0 dBm	+24.0 dBm	+23.5 dBm
Reverse Isolation	50 dB	—	—

* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.
^ 4.5 dB higher below 50 MHz.

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

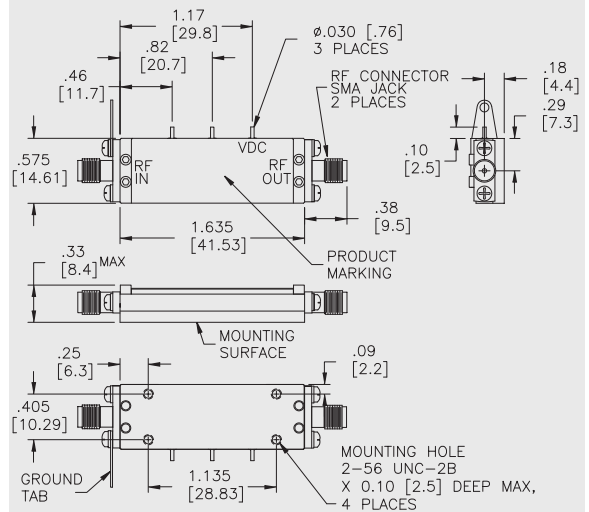
ABSOLUTE MAXIMUM RATINGS

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 ¹ (θjc)	16.5 °C/Watt
Junction Temperature Rise Above Case (Tjc)	74.3 °C

¹ Thermal resistance is based on total power dissipation.

A3CP6025

CougarPak™ Connectorized Package (three-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]