

# A2C5127

## 10 TO 500 MHz SMA CASCADED AMPLIFIER

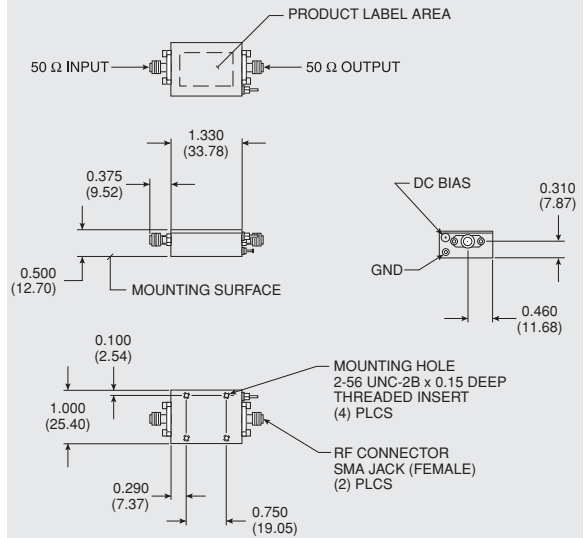
*Typical Values*

<b>High Gain</b> .....	<b>26.5 dB</b>
<b>Low Noise Figure</b> .....	<b>2.5 dB</b>
<b>High Output Level</b> .....	<b>+27.0 dBm</b>
<b>High Third Order I.P.</b> .....	<b>+39 dBm</b>
<b>High Reverse Isolation</b> .....	<b>36 dB</b>
<b>High Performance Thin Film</b>	
<b>Two-stage SMA Package</b>	

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### T0-8 Amplifier SMA Case (two-stage)



## SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	5-600 MHz	10-500 MHz	10-500 MHz
Small Signal Gain (Min.)	26.5 dB	25.0 dB	24.0 dB
Gain Flatness (Max.)	±0.5 dB	±0.7 dB	±0.9 dB
Noise Figure (Max.)	2.5 dB	3.5 dB	4.0 dB
SWR (Max.) Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+27.0 dBm	+25.0 dBm	+24.5 dBm
Reverse Isolation	36 dB	—	—
DC Current (Max.)	220 mA	227 mA	235 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>+51 dBm</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+45 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+39 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>+2 dBm</b>
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	<b>100 Milliwatts</b>
<b>Maximum Peak Power (3 μsec Max.)</b> .....	<b>0.5 Watt</b>
<b>Burn-in Temperature</b> .....	<b>+100 °C</b>
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	<b>+13 °C/Watt</b>
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	<b>+36.2 °C</b>

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

DIMENSIONS ARE IN INCHES [MILLIMETERS]