

# A2C5119

## 10 TO 500 MHz SMA CASCADED AMPLIFIER

*Typical Values*

<b>High Gain</b> .....	<b>A2C5119</b>
<b>Low Noise Figure</b> .....	<b>24.5 dB</b>
<b>High Output Level</b> .....	<b>2.7 dB</b>
<b>High Reverse Isolation</b> .....	<b>+19.0 dBm</b>
<b>High Performance Thin Film</b>	<b>35 dB</b>
<b>Two-stage SMA Package</b>	

### 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.)	24.5 dB	23.0 dB	22.0 dB
Gain Flatness (Max.)	±0.4 dB	±0.6 dB	±0.8 dB
Noise Figure (Max.)	2.7 dB	3.4 dB	3.7 dB
SWR (Max.) Input/Output	1.5:1	1.7:1	1.9:1
Power Output (Min.) @ 1dB comp.	+19.0 dBm	+17.5 dBm	+17.0 dBm
Reverse Isolation	35 dB	—	—
DC Current (Max.)	82 mA	85 mA	89 mA

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

### INTERMODULATION PERFORMANCE

*Typical @ 25 °C*

<b>Second Order Harmonic Intercept Point</b> .....	<b>A2C5119</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+52 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+46 dBm</b>
	<b>+34 dBm</b>

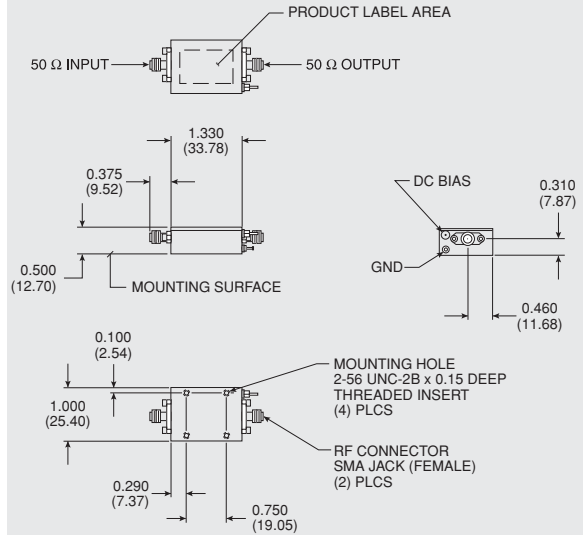
### ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	-62 to +125 °C
<b>Maximum Case Temperature</b> .....	+125 °C
<b>Maximum DC Voltage</b> .....	+17 Volts
<b>Maximum Continuous RF Input Power</b> .....	+13 dBm
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	50 Milliwatts
<b>Maximum Peak Power (3 μsec Max.)</b> .....	0.5 Watt
<b>Burn-in Temperature</b> .....	+105 °C
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	+34 °C/Watt
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	+31.3 °C

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

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



DIMENSIONS ARE IN INCHES [MILLIMETERS]