TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

PRELIMINARY

A4C3120

10 TO 3000 MHz SMA CASCADED AMPLIFIER

Typical Values	***A4C3120***
High Gain	***30.0 dB***
Low Noise Figure	***3.4 dB***
High Output Level	***+21.0 dBm***
High Third Order I.P.	***+35 dBm***
High Reverse Isolation	***50 dB***

High Performance Thin Film
Four-stage SMA Package

SPECIFICATIONS*

Parameter		Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)		**5-3000 MHz**	**10-3000 MHz**	**10-3000 MHz**
Small Signal Gain (Min.)		30.0 dB	28.0 dB	27.0 dB
Gain Flatness (Max.)		±0.7 dB	±1.0 dB	±1.2 dB
Noise Figure (Max.)	1.0-3.0 GHz	2.7 dB	3.5 dB	4.0 dB
	0.2-1.0 GHz	3.5 dB	5.0 dB	5.5 dB
SWR (Max.)	Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.		+21.0 dBm	+20.0 dBm	+19.5 dBm
Reverse Isolation		50 dB	—	—
DC Current (Max.)		240 mA	250 mA	260 mA

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

INTERMODULATION PERFORMANCE

Typical @ 25 °C	***A4C3120***
Second Order Harmonic Intercept Point	+56 dBm
Second Order Two Tone Intercept Point	+50 dBm
Third Order Two Tone Intercept Point	+31 dBm

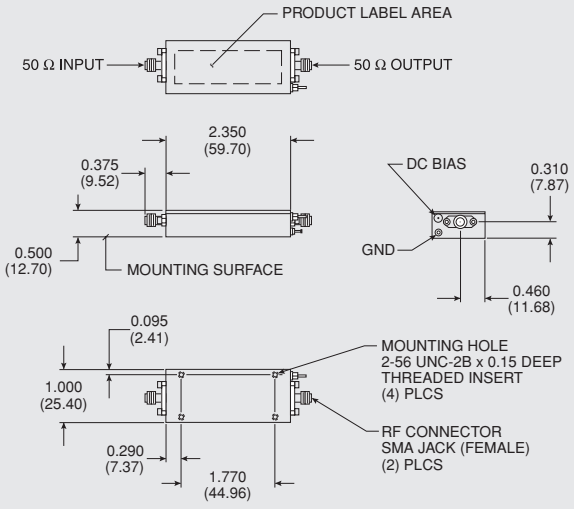
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+105 °C
Maximum DC Voltage	+17 Volts
Maximum Continuous RF Input Power	+15 dBm
Maximum Short Term Input Power (1 Minute Max.)	100 Milliwatts
Maximum Peak Power (3 µsec Max.)	0.25 Watt
Burn-in Temperature	+85 °C
Thermal Resistance[1] (θjc)	+37 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+66.8 °C

[1] Thermal resistance is based on total power dissipation.

A4C3120

TO-8 Amplifier SMA Case
(three- and four-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]