

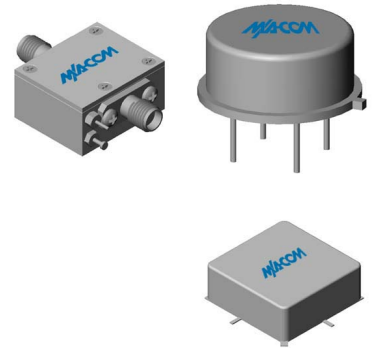


A21-1/SMA21-1

5 TO 1200 MHz

CASCADABLE AMPLIFIER

- LOW NOISE: <2.8 dB (TYP.)
- LOW VSWR: 1.5:1 (TYP.)
- HIGH SINGLE STAGE GAIN: 15 dB (TYP.)



Specifications (Rev. Date: 1/01)*

Characteristics	Typical	Guaranteed	
		0° to 50°C	-54° to +85°C
Frequency	0.0-1.3 GHz	0.0-1.2 GHz	0.0-1.2 GHz
Small Signal Gain (min.)	15.5 dB	14.0 dB	13.5 dB
Gain Flatness (max.)	±0.3 dB	±0.5 dB	±1.0 dB
Reverse Isolation	20 dB		
Noise Figure (max.)	2.4 dB	3.5 dB	3.9 dB
Power Output @ 1 dB comp. (min.)	-1.0 dBm	-2.0 dBm	-3.0 dBm
IP3	+11 dBm		
IP2	+11 dBm		
Second Order Harmonic IP	+17 dBm		
VSWR Input / Output (max.)	1.4:1 / 1.4:1	1.9:1 / 1.9:1	2.0:1 / 2.0:1
DC Current @ 15 Volts (max.)	10 mA	11 mA	12 mA

* Measured in a 50-ohm system at +15 Vdc Nominal. Subject to change without notice.

Absolute Maximum Ratings

Storage Temperature	-62° to +125°C
Max. Case Temperature	125°C
Max. DC Voltage	+17 Volts
Max. Continuous RF Input Power	+13 dBm
Max. Short Term RF Input Power (1 minute max.)	50 mW
Max. Peak Power (3 μsec max.)	0.5 W
"S" Series Burn-in Temperature (Case)	125°C

Thermal Data: $V_{cc} = 15$ Vdc

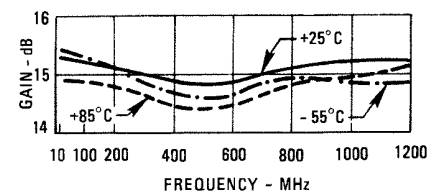
Thermal Resistance θ_{jc}	171°C/W
Transistor Power Dissipation P_d	0.053 W
Junction Temperature Rise Above Case T_{jc}	9°C

Outline Drawings

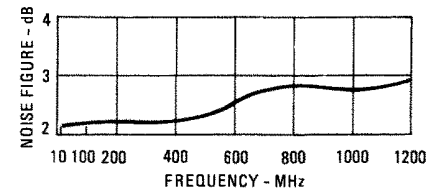
Package	TO-8	Surface Mount	SMA Connectorized
Figure	BG	AA	CE
Model	A21-1	SMA21-1	CA21-1

Typical Performance @ 25°C

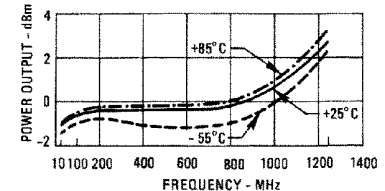
Gain



Noise Figure

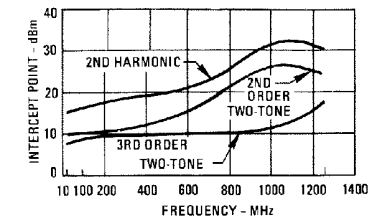


Power Output*



* at 1 dB Gain Compression

Intercept Point



VSWR

