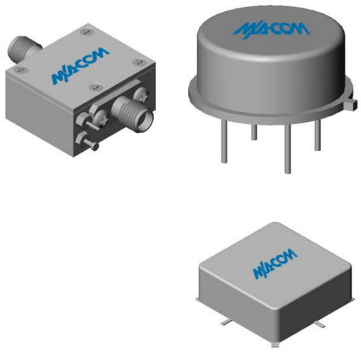
A28-2/SMA28-2

10 TO 1500 MHz



CASCADABLE AMPLIFIER

· LOW NOISE: 3.5 dB (TYP.)
· HIGH EFFICIENCY: 27 mA (TYP.) @ 5 Vdc
· GOOD DYNAMIC RANGE: 105 dB (TYP.)
· LOW VSWR: <1.4:1 (TYP.)

Specifications (Rev. Date: 6/01)*

Characteristics	Typical	Guaranteed	
		0° to 50°C	-54° to +85°C
Frequency	5-1600 MHz	10-1500 MHz	10-1500 MHz
Small Signal Gain (min.)	14.0 dB	13.0 dB	12.5 dB
Gain Flatness (max.)	±0.3 dB	±0.5 dB	±1.0 dB
Reverse Isolation	16 dB		
Noise Figure (max.)	3.5 dB	4.5 dB	5.0 dB
Power Output @ 1 dB comp. (min.)	10.5 dBm	9.5 dBm	8.5 dBm
IP3	+24 dBm		
IP2	+34 dBm		
Second Order Harmonic IP	+40 dBm		
VSWR Input / Output (max.)	1.3:1 / 1.5:1	1.8:1 / 1.9:1	1.9:1 / 2.0:1
DC Current @ 5 Volts (max.)	27 mA	30 mA	32 mA

* Measured in a 50-ohm system at +5 Vdc Nominal. Subject to change without notice.

Absolute Maximum Ratings

Storage Temperature	-62° to +125°C
Max. Case Temperature	125°C
Max. DC Voltage	+8 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} = 5 Vdc

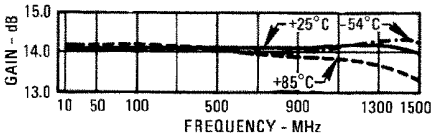
Thermal Resistance θ_{jc}	160°C/W
Transistor Power Dissipation P_d	0.098 W
Junction Temperature Rise Above Case T_{jc}	16°C

Outline Drawings

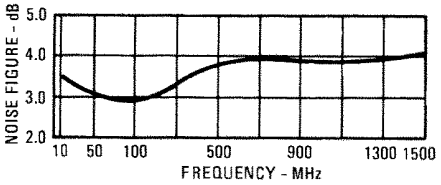
Package	TO-8	Surface Mount	SMA Connectorized
Figure	BG	AA	CE
Model	A28-2	SMA28-2	CA28-2

Typical Performance @ 25°C

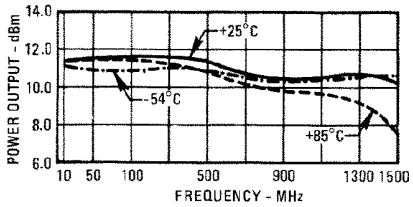
Gain



Noise Figure

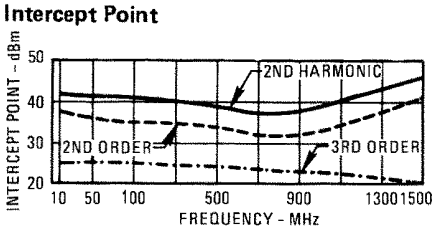


Power Output*



*@ 1 dB Gain Compression

Intercept Point



VSWR

