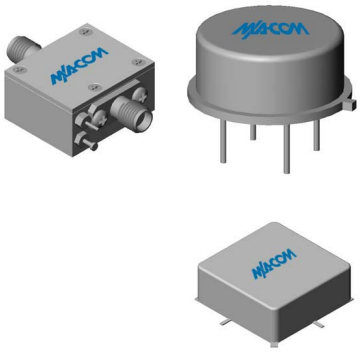
A88/SMA88

5 TO 500 MHz



CASCADABLE AMPLIFIER

· HIGH GAIN: 18.7 dB (TYP.)
· HIGH OUTPUT POWER: +20.5 dBm (TYP.)
· HIGH THIRD ORDER I.P.: +30 dBm (TYP.)

Specifications (Rev. Date: 12/00)*

Characteristics	Typical	Guaranteed	
		0° to 50°C	-54° to +85°C
Frequency	2-500 MHz	5-500 MHz	5-500 MHz
Small Signal Gain (min.)	18.7 dB	18.0 dB	17.5 dB
Gain Flatness (max.)	±0.3 dB	±0.5 dB	±0.7 dB
Reverse Isolation	19 dB		
Noise Figure (max.)	6.5 dB	7.5 dB	8.0 dB
Power Output @ 1 dB comp. (min.)	20.5 dBm	19.5 dBm	19.0 dBm
IP3	+30 dBm		
IP2	+38 dBm		
Second Order Harmonic IP	+41 dBm		
VSWR Input / Output (max.)	1.5:1 / 1.5:1	1.8:1 / 1.8:1	2.0:1 / 2.0:1
DC Current @ 15 Volts (max.)	79 mA	83 mA	87 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.)	100 mW
Max. Peak Power (3 µsec max.)	0.5 W
"S" Series Burn-in Temperature (Case)	125°C

Thermal Data: V_{cc} = 15 Vdc

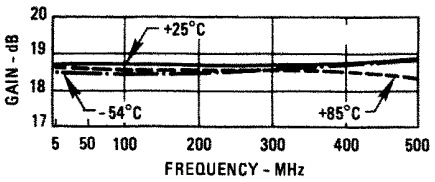
Thermal Resistance θ_{jc}	120°C/W
Transistor Power Dissipation P_d	0.742 W
Junction Temperature Rise Above Case T_{jc}	89°C

Outline Drawings

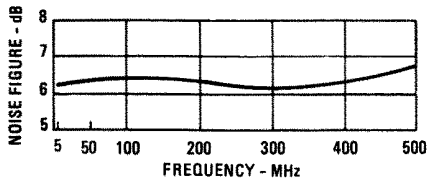
Package	TO-8	Surface Mount	SMA Connectorized
Figure	BG	AA	CE
Model	A88	SMA88	CA88

Typical Performance @ 25°C

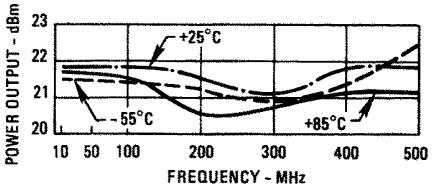
Gain



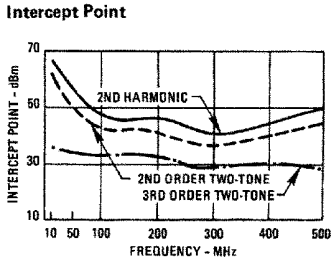
Noise Figure



Power Output*



Intercept Point



VSWR

