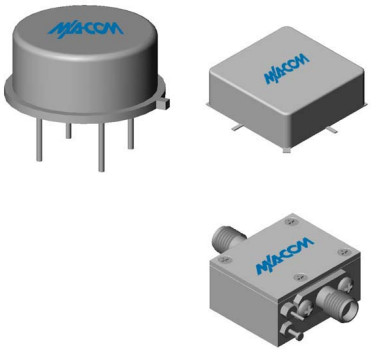
A73/SMA73



5 TO 500 MHz

CASCADABLE AMPLIFIER

· HIGH GAIN-TWO STAGES: 32 dB (TYP.)
· LOW NOISE: 3.5 dB (TYP.)
· +15 dBm THIRD ORDER I.P. (TYP.)
· LOW VSWR: <1.4:1 (TYP.)

Specifications (Rev. Date: 11/00)*

Characteristics	Typical	Guaranteed	
		0° to 50°C	-54° to +85°C
Frequency	1-600 MHz	5-500 MHz	5-500 MHz
Small Signal Gain (min.)	32.0 dB	30.0 dB	29.0 dB
Gain Flatness (max.)	±0.3 dB	±0.7 dB	±1.0 dB
Reverse Isolation	37 dB		
Noise Figure (max.)	3.5 dB	4.0 dB	4.5 dB
Power Output @ 1 dB comp. (min.)	1.5 dBm	1.0 dBm	0.5 dBm
IP3	+15 dBm		
IP2	+19.5 dBm		
Second Order Harmonic IP	+26 dBm		
VSWR Input / Output (max.)	1.4:1 / 1.4:1	1.8:1 / 1.8:1	2.0:1 / 2.0:1
DC Current @ 15 Volts (max.)	20 mA	23 mA	25 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	+6 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

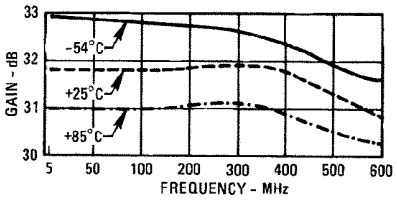
Thermal Resistance θ_{jc}	171°C/W
Transistor Power Dissipation P_d	0.105 W
Junction Temperature Rise Above Case T_{jc}	18°C

Outline Drawings

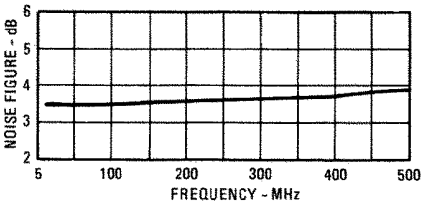
Package	TO-8	Surface Mount	SMA Connectorized
Figure	BG	AA	CE
Model	A73	SMA73	CA73

Typical Performance @ 25°C

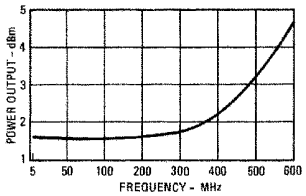
Gain



Noise Figure



Power Output*



* at 1 dB Gain Compression

VSWR