

A25-1/SMA25-1

2 TO 1500 MHz

CASCADABLE AMPLIFIER

- LOW NOISE: <3.4 dB (TYP.)
- MEDIUM POWER OUT: +9.0 dBm (TYP.)
- LOW VSWR: <1.7:1 VSWR (TYP.)
- WIDE POWER SUPPLY RANGE: +5 TO +15 VOLTS



Specifications (Rev. Date: 4/01)*

Characteristics	Typical	Guaranteed	
		0° to 50°C	-54° to +85°C
Frequency	0.0-1.6 GHz	0.0-1.5 GHz	0.0-1.5 GHz
Small Signal Gain (min.)	13.5 dB	13.0 dB	12.5 dB
Gain Flatness (max.)	±0.4 dB	±0.5 dB	±0.7 dB
Reverse Isolation	18 dB		
Noise Figure (max.)	3.0 dB	3.5 dB	4.0 dB
Power Output @ 1 dB comp. (min.)	9.0 dBm	8.0 dBm	7.5 dBm
IP3	+22 dBm		
IP2	+30 dBm		
Second Order Harmonic IP	+36 dBm		
VSWR Input / Output (max.)	1.7:1 / 1.2:1	1.9:1 / 1.9:1	2.0:1 / 2.0:1
DC Current @ 15 Volts (max.)	24 mA	27 mA	28 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	+18 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

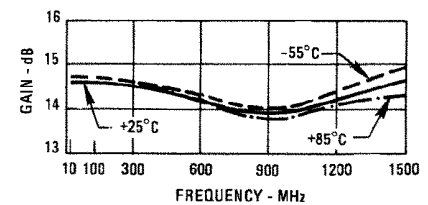
Thermal Resistance θ _{jc}	185°C/W
Transistor Power Dissipation P _d	0.186 W
Junction Temperature Rise Above Case T _{jc}	34°C

Outline Drawings

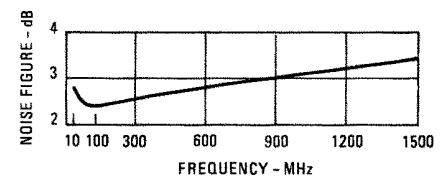
Package Figure Model	TO-8 BG A25-1	Surface Mount AA SMA25-1	SMA Connectorized CE CA25-1
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Typical Performance @ 25°C

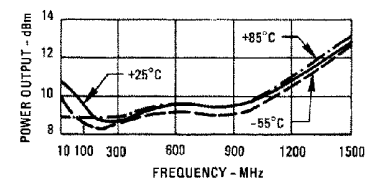
Gain



Noise Figure

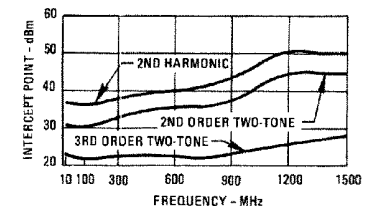


Power Output*



* at 1 dB Gain Compression

Intercept Point



VSWR

