

Power GaAs MMIC Amplifier

2 - 6 GHz

MAAM26100-B1

V 2.00

Features

- +29 dBm Typical Saturated Power
- 18 dB Typical Gain
- 25% Power Added Efficiency
- DC Decoupled RF Input and Output
- Small, 7-Lead Ceramic Package

Electrical Specifications @ $T_A = +25^\circ\text{C}$

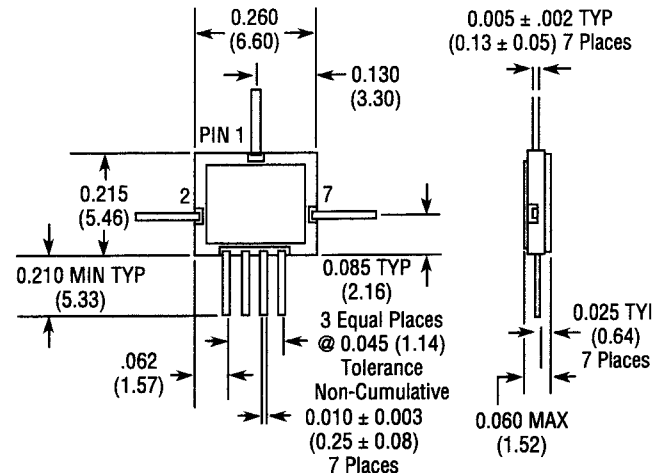
Frequency Range	2.0 – 6.0 GHz	
Gain	18.0 dB Typ	14.0 dB Min
VSWR	Input	2.2:1 Typ
	Output	2.2:1 Typ
Saturated Power Output (Input Power = +14 dBm)	+29 dBm Typ	
Output Power at 1 dB Gain Compression	+27 dBm Typ	
Third Order Intercept	+39 dBm Typ	
Reverse Isolation	30 dB Typ	
Impedance	50 Ω Typ	
Bias Voltage	$V_{DD} = +8 V_{DC}$, $V_{GG} = -5 V_{DC}$ Typ	
Bias Current		
No RF	$I_{DD} = 420$ mA Typ	
@ $P_{IN} = +14$ dBm	$I_{DD} = 600$ mA Typ	
	$I_{GG} = 10$ mA Typ	
Thermal Resistance¹	16.5°C/w Typ	

Maximum Ratings

Voltage	$V_{DD} = +12$ Volts, $V_{GG} = -10$ Volts
Input Power	+23 dBm
Storage Temperature	-65°C to +150°C
Operating Channel Temperature	+150°C

1. Attachment method not included.

CR-2



Bottom of Case is AC Ground
Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ± 0.010 (.xx = ± 0.25)
.xx = ± 0.02 (.x = ± 0.5)

Specifications Subject to Change Without Notice.

11-52

M/A-COM, Inc.

North America: Tel. (800) 366-2266
Fax (800) 618-8883

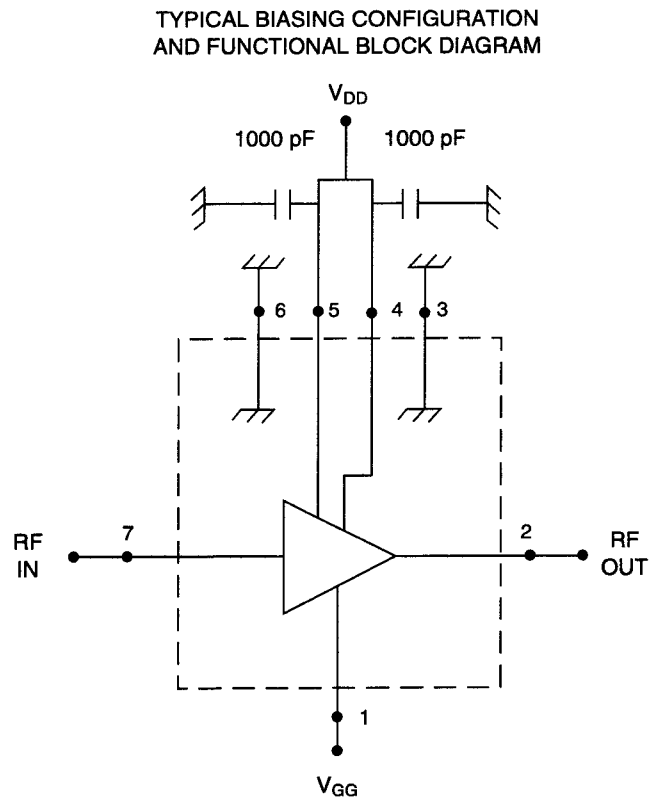
Asia/Pacific: Tel. +81 (03) 3226-1671
Fax +81 (03) 3226-1451

Europe: Tel. +44 (1344) 869 595
Fax +44 (1344) 300 020

Pin Configuration

Pin No.	Function
1	V_{GG}
2	Output
3	Internal GND
4	V_{D2}
5	V_{D1}
6	Internal GND

Schematic



1. Nominal bias is obtained by first connecting -5 volts to pin 1 (V_{GG}), followed by connecting +8 volts to pin 5 (V_{D1}) and pin 4 (V_{D2}). Note sequence.
2. RF ground and thermal interface are the case bottom. Adequate heat sinking is required.

Specifications Subject to Change Without Notice.

M/A-COM, Inc.

11-53

North America: Tel. (800) 366-2266
Fax (800) 618-8883

Asia/Pacific: Tel. +81 (03) 3226-1671
Fax +81 (03) 3226-1451

Europe: Tel. +44 (1344) 869 595
Fax +44 (1344) 300 020