

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

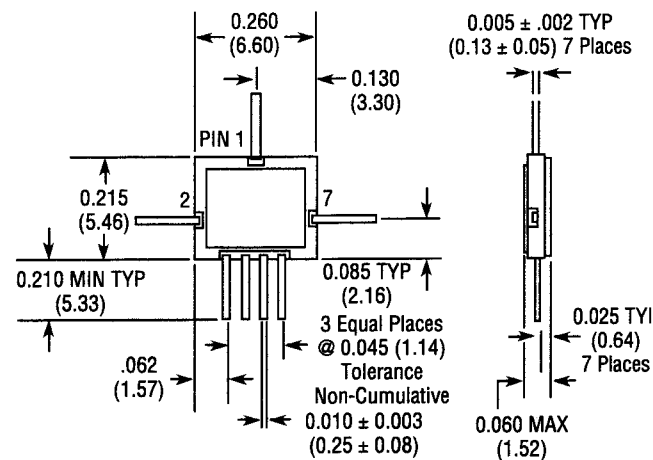
<b>Frequency Range</b>		2.0 – 6.0 GHz
<b>Gain</b>	18.0 dB Typ	14.0 dB Min
<b>VSWR</b>	Input	2.2:1 Typ
	Output	2.2:1 Typ
<b>Saturated Power Output</b> (Input Power = +14 dBm)		+29 dBm Typ
<b>Output Power at 1 dB Gain Compression</b>		+27 dBm Typ
<b>Third Order Intercept</b>		+39 dBm Typ
<b>Reverse Isolation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

## Maximum Ratings

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

1. Attachment method not included.

## CR-2

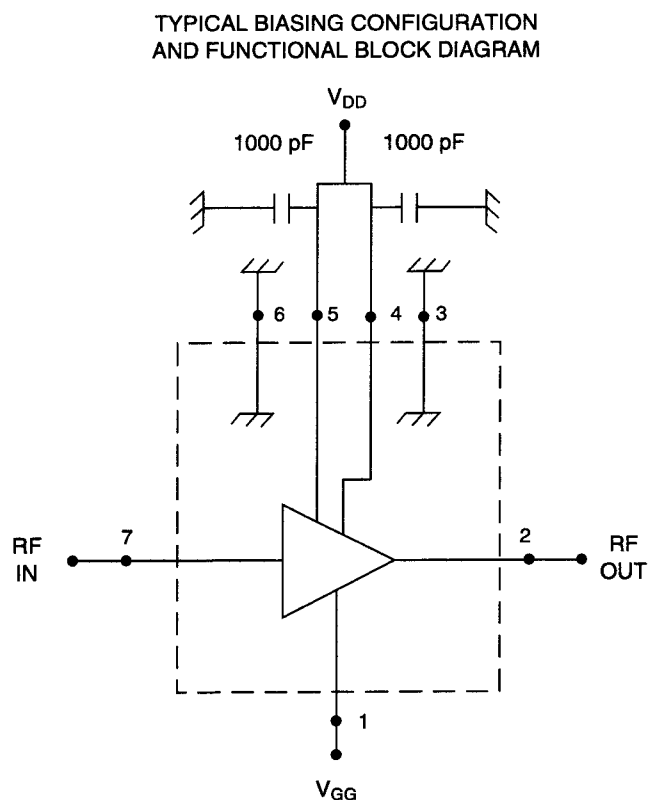


Bottom of Case is AC Ground  
Dimensions in ( ) are in mm.  
Unless Otherwise Noted: .xxx = ± 0.010 (.xx = ± 0.25)  
.xx = ± 0.02 (.x = ± 0.5)

## 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.