



MPA3089 SOLID STATE MEDIUM POWER AMPLIFIER

FEATURES

- Class AB Solid-State GaAsFET linear design
- Designed for S-Band medium power linear applications
- Suitable for all single channel modulation standards
- Built-in ALC and protection circuits
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	2.0 - 2.4 GHz	
Power Output Psat	1.0 Watt Min / 2.0 Watt Typ	CW
Power Gain	33 dB Min	
Power Gain Flatness	1.0 dB p-p Max	Constant input power
Gain Adjustment Range	25 dB Mi	
Input Return Loss	-10 dB Max	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Max	23dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics 2 nd / 3 rd	-30 dBc Max	At Rated Pout
Non Harmonics Spurious	-60 dBc Max	
Operating Voltage	5 VDC Nom	
Current Consumption	2 Amp Max	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	$\infty : 1$	<1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-40 to +85 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	2.8 x 1.4 x 0.5 inch	Excluding connectors
Weight	-	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	Feed Thru	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	ALC	0 - 5V (0V = No Attn.; 5V = Max Attn.)
2	VDD	5VDC
3	GND	Ground

OUTLINE DRAWING

