

MPA1139 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

- Class AB linear GaN design
- Instantaneous ultra-wide bandwidth
- Suitable for all single channel modulation standards
- Built-in protection circuits
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	9KHz - 1.0 GHz	
Power Output Psat	2 Watt Min	CW
Power Gain	33 dB Min	
Gain Flatness	4.0 dB p-p Max	
Input Return Loss	-10 dB Max	Relative to 50 Ohm
Harmonics 2 nd / 3rd	-15 dBc Max / -20 dBc Typ	At rated Pout
2-Tone Intermodulation (IMD)	-30 dBc Typ	23dBm/Tone, Δ = 1MHz
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 VDC Nom	
Current Consumption	1 Amp Max	At rated Pout
Max Input Power	+8 dBm	Without damage
Load VSWR Protection	∞ : 1	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	100 x 80 x 27 mm	Excluding connectors
Weight	300 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/C
2	REV	N/C
3	CURRENT SENSOR	I _b @20mV/100mA Typ
4	TEMP SENSOR	V _r @10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground



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OUTLINE DRAWING