

MPA3021 SOLID STATE HIGH POWER AMPLIFIER



FEATURES

- Class AB linear GaAsFET hybrid design
- Designed for Q-Band linear applications
- Suitable for all single channel modulation standards
- Built-in protection circuits
- High reliability and ruggedness

ELECTRICAL SPECIFICATIONS: 50Ω, 25°

Parameter	Specification	Notes
Operating Frequency Range	41.0 - 47.0 GHz	
Power Output Psat	2 Watt Min	
Power Output @ P1dB	1 Watt Typ	
Power Gain	33 dB Min	
Power Gain Flatness	4.0 dB p-p Max	Constant input power
Input / Output Return Loss	-10 dB Max	Relative to 50 Ohm
Noise Figure	12 dB Max	
Harmonics	-20 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	9 VDC Nom	
Current Consumption	5 Amp Max	At rated Pout
Input Power Protection	+3 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1 Max	<1 minute @ rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	60 x 70 x 20 mm	Excluding connectors
Weight	1.5kg nom.	
RF Connectors In/Out	2.4 mm - F	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

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



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OUTLINE DRAWING