



AMP3097-1 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

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



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	400 - 500 MHz	
Power Output Psat	5 Watt Typ	CW
Power Gain	37 dB Min	
Power Gain Flatness	1.0 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Max	30dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics 2 nd / 3 rd	-30 dBc Max	At Rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	12 VDC Nom	
Current Consumption	3 Amp Max	At rated output
Max Input Power Protection	+8 dBm	<10 Sec without damage
Load VSWR Protection	$\infty : 1$	< 1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

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

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	125 x 63 x 27 mm	Excluding connectors
Weight	380 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	$I_D @ 20\text{mV}/100\text{mA Typ}$
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV Typ}$
5	SHUTDOWN	TTL
6, 7	VDD	12VDC
8, 9	GND	Ground

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OUTLINE DRAWING

