



AMP1147 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

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



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	0.5 - 6.0 GHz	
Power Output Psat	10 Watt Min / 8W @ 400 - 700 MHz	At nominal Pin=0dBm
Output Power @ P1dB	5 Watt Typ	
Power Gain	40 dB Min	
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics 2 nd / 3 rd	<-15 dBc / -20 dBc Typ	At Rated Pout -13 dBc Typ from 0.5-1.5GHz
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	32 VDC Nom	
Current Consumption	3.5 Amp Max	At rated Pout
Max Input Power Protection	+8 dBm	<10 Sec without damage
Load VSWR Protection	∞ : 1	<1 minute at rated Pout
Enable / Disable Switching Speed	<5 μS	10 -90% of Rise & Fall time

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 75 x 24 mm	Excluding connectors
Weight	525 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/A
2	REV	N/A
3	CURRENT SENSOR	$I_D @ 100mV/100mA$ Typ
4	TEMP SENSOR	$V_T @ 10mV/^{\circ}C + 500mV$ Typ
5	SHUTDOWN	Enable = High (2.5 - 5V) or Open / Disable = Low (0 - 1.0V)
6, 7	VDD	32VDC
8, 9	GND	Ground

OUTLINE DRAWING

