

# AMP3083 SOLID STATE HIGH POWER AMPLIFIER

## FEATURES

Class AB linear solid-state GaAsFET design  
 Instantaneous bandwidth  
 Small form factor and light weight  
 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	29 - 31 GHz	
Power Output @ Past	40 Watt Typ	CW
Power Output @ P1dB	16 Watt Min / 20 Watt Typ	
Small Signal Gain	43 dB Nom	
Gain Variation over Temperature Range	±4.0 dB Max	
Power Gain Flatness	2.0 dB p-p Max	
Input / Output Return Loss	-14 dB / -17 dB Max	
2-Tone Intermodulation (IMD)	-25 dBc Typ	36dBm/Tone, Δ =5MHz
Harmonics	-20 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	10 dB Max	
Operating Voltage	24 VDC Nom	
Current Consumption	17 Amp Max	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1 Max	<1 minute at rated Pout

## ENVIRONMENTAL CHARACTERISTICS

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

## MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	280 x 300 x 30 mm	Excluding connectors
Weight	3 Kg. Nom	
RF Connectors In/Out	K female / WR28 Waveguide	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

## D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1		N/A
2		N/A
3	Current Sensor	I <sub>D</sub> @ 20mV/100mA Typ
4	Temp Sensor	V <sub>T</sub> @ 10mV/°C + 500mV Typ
5	Shutdown	Enable = TTL "Hi" or Open; Disable = TTL "Lo" or Short
A1	VDD	24VDC
A2	GND	Ground

## OUTLINE DRAWING

