



## AMP1079 SOLID STATE HIGH POWER AMPLIFIER

### FEATURES

Class A linear GaAsFET hybrid design  
Instantaneous wide bandwidth  
Suitable for all modulations standards  
Built-in protection circuits  
High reliability and ruggedness

### ELECTRICAL SPECIFICATIONS

| Parameter                    | Specification  | Notes                         |
|------------------------------|----------------|-------------------------------|
| Operating Frequency Range    | 6.0 - 18.0 GHz |                               |
| Power Output                 | 5 Watt Min     | CW                            |
| Power Gain                   | 37 dB Min      |                               |
| Power Gain Flatness          | 4.0 dB p-p Max | Constant input power          |
| Input / Output Return Loss   | 10 dB Min      | Relative to 50 Ohm            |
| 2-Tone Intermodulation (IMD) | >30 dBc Typ    | 27 dBm/Tone, $\Delta = 1$ MHz |
| Harmonics                    | >15 dBc Typ    | At rated Pout                 |
| Non Harmonics Spurious       | >60 dBc Min    |                               |
| Noise Figure                 | 10 dB Max      |                               |
| Operating Voltage            | 12 VDC Nom     |                               |
| Current Consumption          | 6.5 Amp Max    | At rated Pout                 |
| Max Input Power              | +5 dBm         | Without damage                |
| Load VSWR Protection         | 5 : 1 Max      |                               |

### 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                     | 100 X 85 X 27 mm  | Excluding Connectors |
| Weight                         | TBD               |                      |
| 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            | Reserved                                              |
| 2    | VVA            | Reserved                                              |
| 3    | CURRENT SENSOR | Reserved                                              |
| 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                                                |

# AMP1079 SOLID STATE HIGH POWER AMPLIFIER

## OUTLINE DRAWING

