

## Low Noise RF Amplifier

- \* Operating Frequency : 20-500 MHz.
- \* Linear Power : +27 dBm.
- \* Noise Figure : 1.6 dB.
- \* High Gain : 60 dB.
- \* No external components required



### ELECTRICAL SPECIFICATION @ VDD= +15VDC; Temp. = 25°C, 50Ω System

| Parameter                        | Symbol  | Min | Typ    | Max    | Unit  |
|----------------------------------|---------|-----|--------|--------|-------|
| Operating Frequency              | BW      | 20  |        | 500    | MHz.  |
| Gain                             | G       | 55  | 60     |        | dB.   |
| Gain Flatness                    | Δ G     |     | ±0.3   | ±1.5   | dB.   |
| Reverse Isolation                | S 12    |     | -60    |        | dB.   |
| Noise Figure                     | NF      |     | 1.6    | 1.8    | dB.   |
| Power Output P1dB                | P1dB    | 25  | 27     |        | dBm.  |
| Output 3rd Order Intercept Point | OIP3    | 35  | 37     |        | dBm.  |
| VSWR in/out                      | S11/S22 |     | 1.6 :1 | 2.0 :1 | Ratio |
| Operating Voltage                | Vdc     |     | 15     |        | Volt  |
| Operating Current                | Id      |     | 440    | 500    | mA.   |

### MECHANICAL SPECIFICATION

| Parameter            | Description | Limits | Units |
|----------------------|-------------|--------|-------|
| Dimension            | 2.5x1x.5    |        | in.   |
| RF Connectors IN/OUT | SMA-F       |        |       |
| DC Connector         | Filtered DC |        |       |
| Cooling              | None        |        |       |

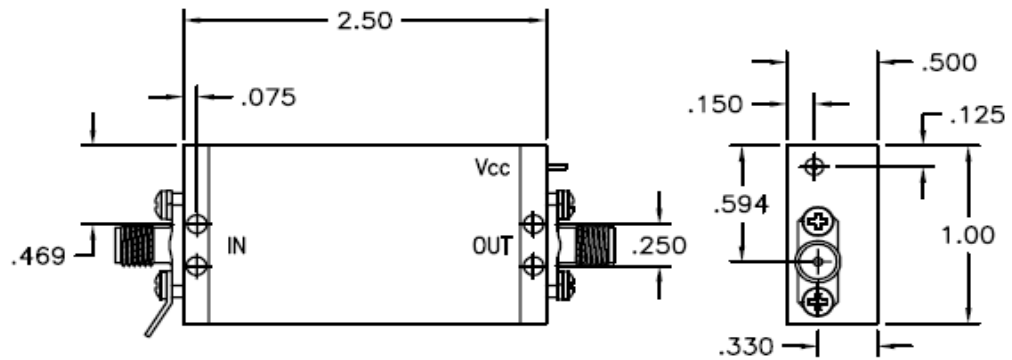
### PROTECTIONS

|                             |              |  |
|-----------------------------|--------------|--|
| RF Input Power              | -10 dBm. Max |  |
| Reverse Polarity Protection | Optional     |  |
| Load VSWR                   |              |  |
| Stability                   | 100%         |  |

### ENVIROMENTAL CHARACTERISTICS

| Parameter                  | Symbol | Min. | Typ. | Max.  | Units |
|----------------------------|--------|------|------|-------|-------|
| Operating Case Temperature | Tc     | 0    |      | 50°C  | °C    |
| Storage Temperature        | Tstg   | -40  |      | 100°C | °C    |

Outline Drawing



FUNCTIONAL BLOCK DIAGRAM

