

FEATURES

- GaAs active devices
- Power gain @34dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

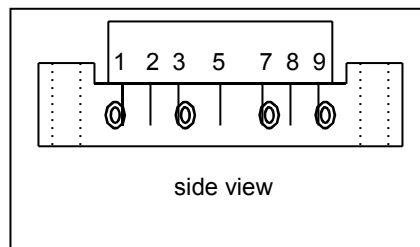
DESCRIPTION

The SMG8342M1 is a GaAs module.

The part employs GaAs dies and is operated from 50MHz to 870MHz with supply voltage +24V(DC)

OUTLINE

PIN CONFIGURATION



Pin Description

| | |
|---------|-----------------|
| 1 | Input |
| 5 | +V _B |
| 9 | Output |
| 2、3、7、8 | GND |

QUICK REFERENCE DATA

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNITS |
|------------------|-------------------------------|---------------------|------|------|-------|
| G _p | Power Gain | f=50 MHz | 34 | 35.5 | dB |
| G _p | Power Gain | f=860 MHz | 37 | -- | dB |
| I _{tot} | Total current consumption(DC) | V _B =24V | 100 | 130 | mA |

SANLAND TECHNOLOGY

- Tel: 86-0755-28968333
- Fax: 86-0755-89724455

- Http: www.sanlandtech.com
- E-mail: info@sanlandtech.com

LIMITING VALUES

In accordance with the Absolute Maximum Rating System

| SYMBOL | PARAMETER | MIN. | MAX. | UNITS |
|-----------|-------------------------------------|------|------|-------|
| V_i | RF input voltage | - | 50 | dBmV |
| T_{stg} | Storage temperature | -40 | +100 | °C |
| T_{mb} | Operating mounting base temperature | -20 | +90 | °C |

CHARACTERISTICS

(Bandwidth 50 to 870MHz; $T_{mb}=25^{\circ}\text{C}$, $V_B=24\text{V}$, $Z_S=Z_L=75\ \Omega$)

| SYMBOL | PARAMETER | UNIT | MIN. | TYP. | MAX. | CONDITIONS |
|-----------|-----------------------------------|------|------|------|-----------|--------------------------------------------|
| G_p | Power Gain | dB | 34 | - | 35.5 | f=50MHz |
| G_p | Power Gain | dB | 37 | - | - | f=860MHz |
| SL | Slope cable equivalent | dB | 2.0 | - | 3.5 | f=50 to 870 MHz |
| FL | Flatness of frequency response | dB | - | - | ± 0.5 | f=50 to 870 MHz |
| S_{11} | Input Return Loss | dB | - | - | -16 | f=50 to 870 MHz |
| S_{22} | Output Return Loss | dB | - | - | -16 | f=50 to 870 MHz |
| CTB | Composite Triple Beat | dB | - | - | -60 | PAL60 channels flat; $V_o=44\text{dBmV}$; |
| CSO | Composite Second Order distortion | dB | - | - | -60 | CTB measured at 543.25 MHz; |
| X_{mod} | Cross Modulation | dB | - | - | -55 | CSO measured at 544.5 MHz; |
| V_o | Output Voltage | dBmV | 58 | - | - | $d_{im}=-60\text{dB}$ |
| F | Noise Figure | dB | - | - | 7.5 | f=860 MHz |
| I_{tot} | Total Current Consumption | mA | 100 | 130 | | $V_B=+24\text{V}$ |

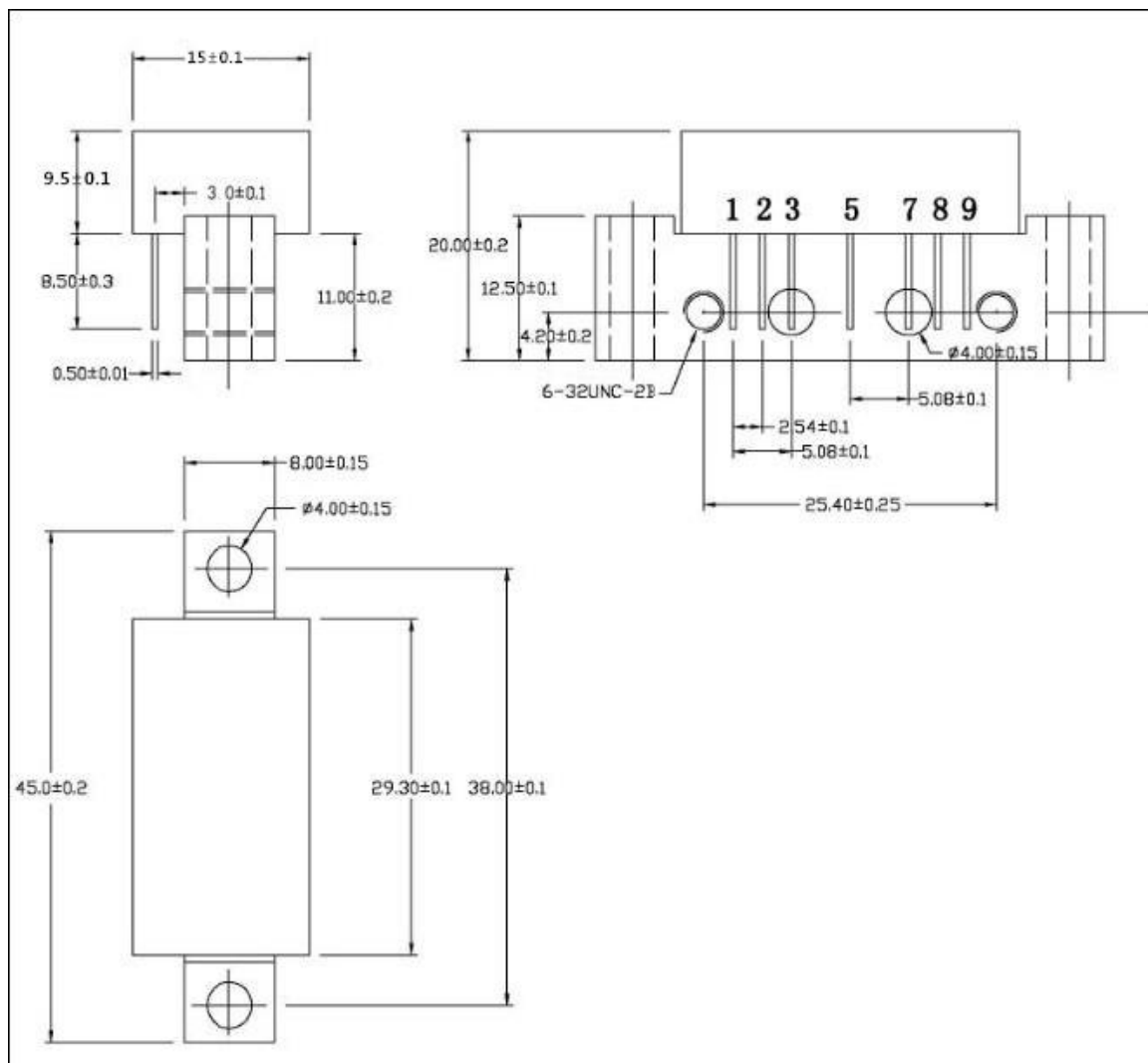
The module normally operates at $V_B=24\text{ V}(\pm 0.5)$,

SANLAND TECHNOLOGY

- Tel: 86-0755-28968333
- Fax: 86-0755-89724455

- Http: www.sanlandtech.com
- E-mail: info@sanlandtech.com

MODULE DIMENSIONS



SANLAND TECHNOLOGY

- Tel: 86-0755-28968333
- Fax: 86-0755-89724455

•Http: www.sanlandtech.com
•E-mail: info@sanlandtech.com