

### FEATURES

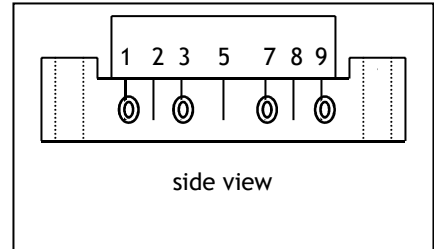
- Si active devices
- Power gain @35dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

### DESCRIPTION

The SMG3352R is a hybrid reverse amplifier module. The part employs Si dies and is operated from 10MHz to 300MHz with supply voltage +24V( DC)

### OUTLINE

#### PIN CONFIGURATION



#### Pin Description

|         |                 |
|---------|-----------------|
| 1       | Input           |
| 5       | +V <sub>B</sub> |
| 9       | Output          |
| 2、3、7、8 | GND             |

### QUICK REFERENCE DATA

| SYMBOL           | PARAMETER                     | CONDITIONS          | MIN. | MAX. | UNITS |
|------------------|-------------------------------|---------------------|------|------|-------|
| G <sub>p</sub>   | Power Gain                    | f=10 MHz            | 34.5 | 35.8 | dB    |
| I <sub>tot</sub> | Total current consumption(DC) | V <sub>B</sub> =24V | 130  | 160  | mA    |

### LIMITING VALUES

In accordance with the Absolute Maximum Rating System

| SYMBOL           | PARAMETER                           | MIN. | MAX. | UNITS |
|------------------|-------------------------------------|------|------|-------|
| V <sub>i</sub>   | RF input voltage                    | -    | 65   | dBmV  |
| T <sub>stg</sub> | Storage temperature                 | -40  | +100 | °C    |
| T <sub>mb</sub>  | Operating mounting base temperature | -20  | +90  | °C    |

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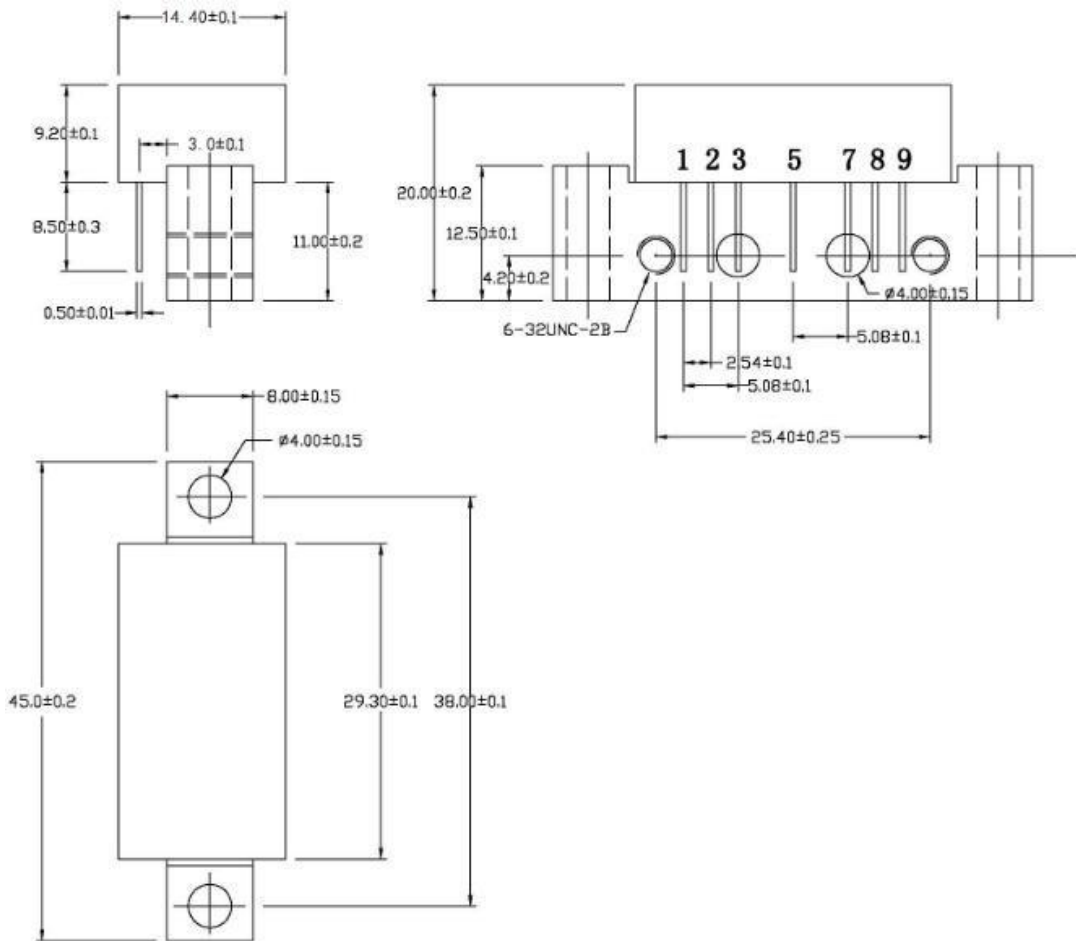
### CHARACTERISTICS

(Bandwidth 5 to 300MHz;  $T_{mb}=25^{\circ}\text{C}$ ,  $V_B=24\text{V}$ ,  $Z_S=Z_L=75\Omega$ )

| SYMBOL    | PARAMETER                         | UNIT | MIN. | TYP. | MAX.      | CONDITIONS                             |
|-----------|-----------------------------------|------|------|------|-----------|--|
| $G_p$     | Power Gain                        | dB   | 34.5 | -    | 35.8      | $f=10\text{MHz}$                       |
| $G_p$     | Power Gain                        | dB   | -    | 35   | -         | $f=300\text{MHz}$                      |
| SL        | Slope cable equivalent            | dB   | -0.5 | -    | +0.5      | $f=10$ to $300\text{MHz}$              |
| FL        | Flatness of frequency response    | dB   | -    | -    | $\pm 0.5$ | $f=10$ to $300\text{MHz}$              |
| $S_{11}$  | Input Return Loss                 | dB   | -    | -    | -18       | $f=10$ to $300\text{MHz}$              |
| $S_{22}$  | Output Return Loss                | dB   | -    | -    | -18       | $f=10$ to $300\text{MHz}$              |
| CTB       | Composite Triple Beat             | dB   | -    | -    | -66       | 17channels flat; $V_o=50\text{dBmV}$ ; |
| CSO       | Composite Second Order distortion | dB   | -    | -    | -65       |  |
| $X_{mod}$ | Cross Modulation                  | dB   | -    | -    | -60       |  |
| F         | Noise Figure                      | dB   | -    | 4.3  | -         | $f=200\text{ MHz}$                     |
| $I_{tot}$ | Total Current Consumption         | mA   | 130  | 160  |           | $V_B=+24\text{V}$                      |

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

### MODULE DIMENSIONS



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