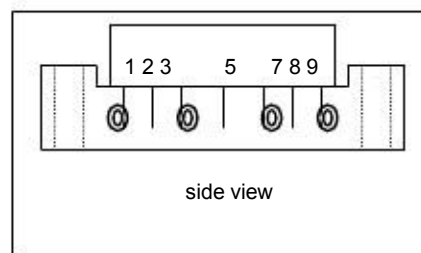


FEATURES

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

OUTLINE

PIN CONFIGURATION



DESCRIPTION

The SMF3535 is a GaAs hybrid integrated circuit designed to be used as the output device in CATV applications up to 870MHz. Because it is GaAs devices, it has low distortion, wideband frequency. Same as the previous generation of product, these devices survive such hazards as surge and ESD as well as their silicon competitors, but deliver superior performance with low DC current required.

| Pin | Description |
|---------|-------------|
| 1 | Input |
| 5 | +VB |
| 9 | Output |
| 2、3、7、8 | GND |

QUICK REFERENCE DATA

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNITS |
|--------|--------------------------------|------------|------|------|-------|
| Gp | Power Gain | f=50 MHz | 33 | 34 | dB |
| Itot | Total current consumption (DC) | VB=3.5V | 130 | 170 | mA |

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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°C, V_B=3.5V, Z_S=Z_L=75Ω)

| SYMBOL | PARAMETER | UNIT | MIN. | TYP. | MAX. | CONDITIONS |
|------------------|-----------------------------------|------|------|------|------|---|
| G _p | Power Gain | dB | 33 | - | 34 | f=50MHz |
| SL | Slope cable equivalent | dB | 1.0 | - | 1.5 | f=50 to 870 MHz |
| FL | Flatness of frequency response | dB | - | - | ±0.5 | f=50 to 870 MHz |
| S ₁₁ | Input Return Loss | dB | - | - | -15 | f=50 to 870 MHz |
| S ₂₂ | Output Return Loss | dB | - | - | -16 | f=50 to 870 MHz |
| CTB | Composite Triple Beat | dB | - | - | -60 | 60 channels flat; V _o =40dBmV; |
| CSO | Composite Second Order distortion | dB | - | - | -58 | CTB measured at 543.25 MHz; |
| X _{mod} | Cross Modulation | dB | - | - | -58 | CSO measured at 544.5 MHz; |
| V _o | Output Voltage | dBmV | 60 | - | - | dim=-60dB |
| F | Noise Figure | dB | - | 3.5 | - | f=870 MHz |
| I _{tot} | Total Current Consumption | mA | 130 | - | 170 | V _B =+3.5V |

The module normally operates at V_B=3.5V

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