

RF AMPLIFIER

MODEL TZ9405

Available as: TZ9405, 4 Pin TO-8 (T4)
 TN9405, 4 Pin Surface Mount (SM3)
 FP9405, 4 Pin Flatpack (FP4)
 BX9405, Connectorized Housing (H1)
 PN9405, Reduced Size Surface Mount (SM11)

Features

- Low Cost
- Cascadable
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +49 dBm (Typ.)
 Second Order Two Tone Intercept Point +42 dBm (Typ.)
 Third Order Two Tone Intercept Point +35 dBm (Typ.)

Specifications

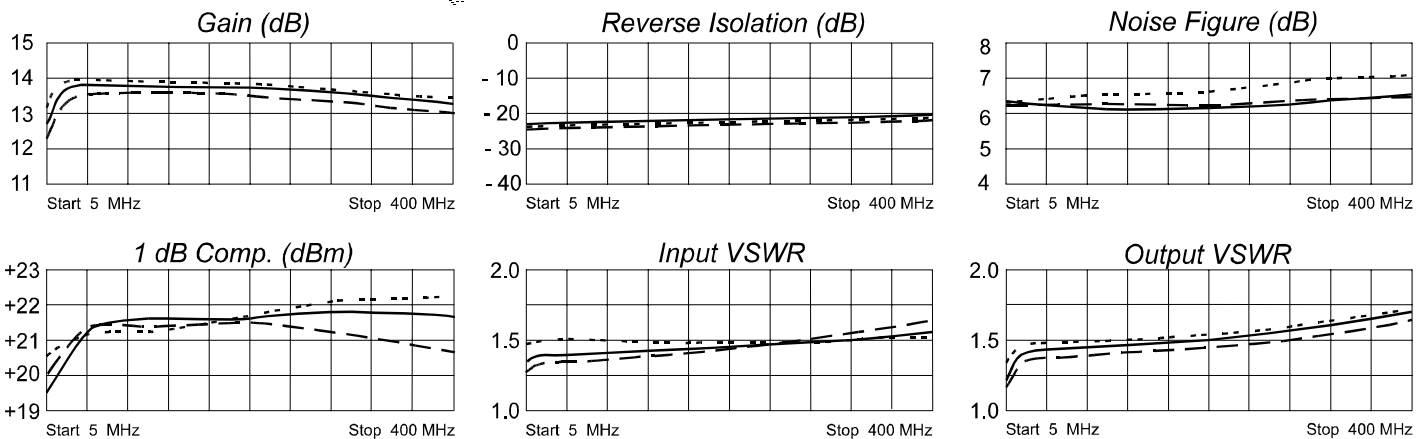
| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|-----------------------------|----------------------|----------------------------------|
| Frequency | 5 - 400 MHz | 5 - 400 MHz |
| Gain (dB) | 13.5 | 12.0 Min. |
| Power @ 1 dB Comp. (dBm) | +20 | +18.5 Min. |
| Reverse Isolation (dB) | -19.5 | -18 Max. |
| VSWR In | <1.5:1 | 2.0:1 Max. |
| VSWR Out | <1.75:1 | 2.0:1 Max. |
| Noise Figure (dB) | <6.5 | 7.5 Max. |
| Power Vdc | +15 | +15 |
| mA | 90 | 100 Max. |

Note: Care should always be taken to effectively ground the case of each unit.

Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +18 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power..... 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Typical Performance Data



Legend ——— +25 °C - - - +85 °C ······ -55 °C

Linear S-Parameters

| FREQ. MHz | S11 | | S21 | | S12 | | S22 | |
|--------------|-----|------|------|------|-----|-----|-----|------|
| | Mag | Deg | Mag | Deg | Mag | Deg | Mag | Deg |
| 5 | .15 | -155 | 4.34 | -171 | .07 | 11 | .10 | 79 |
| 50 | .18 | -178 | 4.92 | 171 | .08 | 3 | .18 | - 2 |
| 100 | .18 | -179 | 4.92 | 159 | .08 | 4 | .19 | - 22 |
| 200 | .18 | 179 | 4.86 | 135 | .09 | 5 | .20 | - 55 |
| 300 | .19 | -179 | 4.76 | 112 | .09 | 6 | .23 | - 90 |
| 400 | .22 | -180 | 4.60 | 99 | .10 | 4 | .26 | -126 |
| 500 | .25 | 175 | 4.35 | 65 | .11 | 1 | .31 | -163 |



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