

# 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

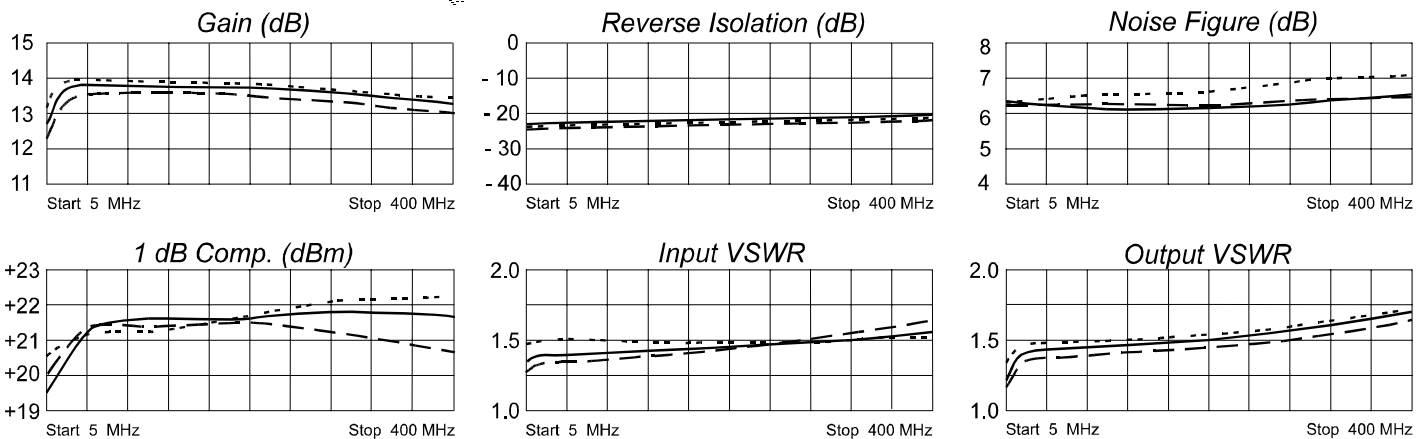
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 400 MHz	5 - 400 MHz
Gain (dB)	13.5	12.0 Min.
Power @ 1 dB Comp. (dBm)	+20	+18.5 Min.
Reverse Isolation (dB)	-19.5	-18 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<6.5	7.5 Max.
Power Vdc	+15	+15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