

# RF AMPLIFIER

## MODEL TZ9212

Available as: TZ9212, 4 Pin TO-8 (T4)  
 TN9212, 4 Pin Surface Mount (SM3)  
 BX9212, Connectorized Housing (H1)

### Features

- Wide Bandwidth: 0.1 MHz to 200 MHz
- High Gain: 31.5 dB Typical
- Low Noise Figure: <3.5 dB Typical
- Operating Temp. -55 °C to +85 °C

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	0.1 - 200 MHz	0.1 - 200 MHz
Gain (dB)	31.5	30.0 Min.
Power @ 1 dB Comp. (dBm)	+7	+5.0 Min.
Reverse Isolation (dB)	-41	-39 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<3.5	4.0 Max.
Power Vdc	+15	+15
mA	35	40 Max.

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

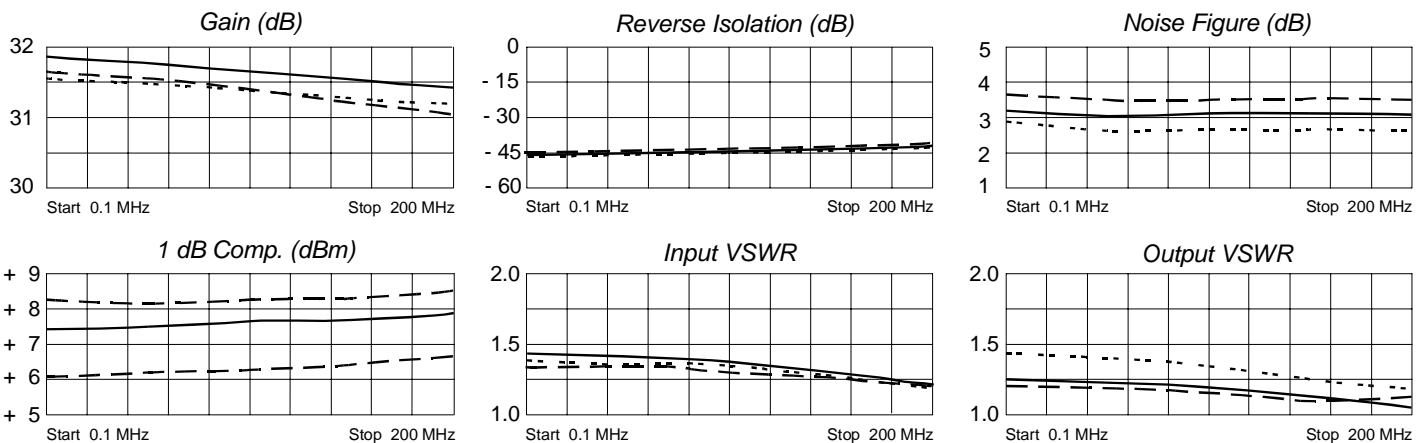
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +39 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +33 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +17 dBm (Typ.)

### 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 ..... + 20 dBm  
 Short Term RF Input Power .... 200 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

### Typical Performance Data



### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.12	-179	39.17	- 2	.01	3	.17	- 2
25	.12	176	38.97	- 13	.01	- 3	.17	- 8
50	.11	171	38.79	- 26	.01	13	.16	- 15
100	.09	165	38.24	- 51	.01	6	.15	- 31
150	.07	166	37.77	- 76	.01	25	.12	- 48
200	.04	-166	37.22	-102	.01	30	.09	- 75
250	.06	- 96	36.63	-128	.01	36	.09	-121



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