

# RF AMPLIFIER

## MODEL TR9189

Available as: TR9189, 4 Pin TO-8B (T8)  
 RN9189, 4 Pin .525" Sq. Surface Mount (SM19)  
 WN9189, 10 Pin .625" Sq. Gullwing (SG4)  
 BR9189, Connectorized Housing (H2)

### Features

- Higher Output Power: 25.5 dBm Typical
- High Gain: 23 dB Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		10 - 400 MHz	10 - 400 MHz
Gain (dB)		23	22 Min.
Power @ 1 dB Comp. (dBm)		+25.5	+24.5 Min.
Reverse Isolation (dB)		-32	-31 Max.
VSWR	In	1.8:1	2.0:1 Max.
	Out	1.8:1	2.0:1 Max.
Noise figure (dB)		5.0	6.0 Max.
Power	Vdc	+15	+15
	mA	205	220 Max.

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

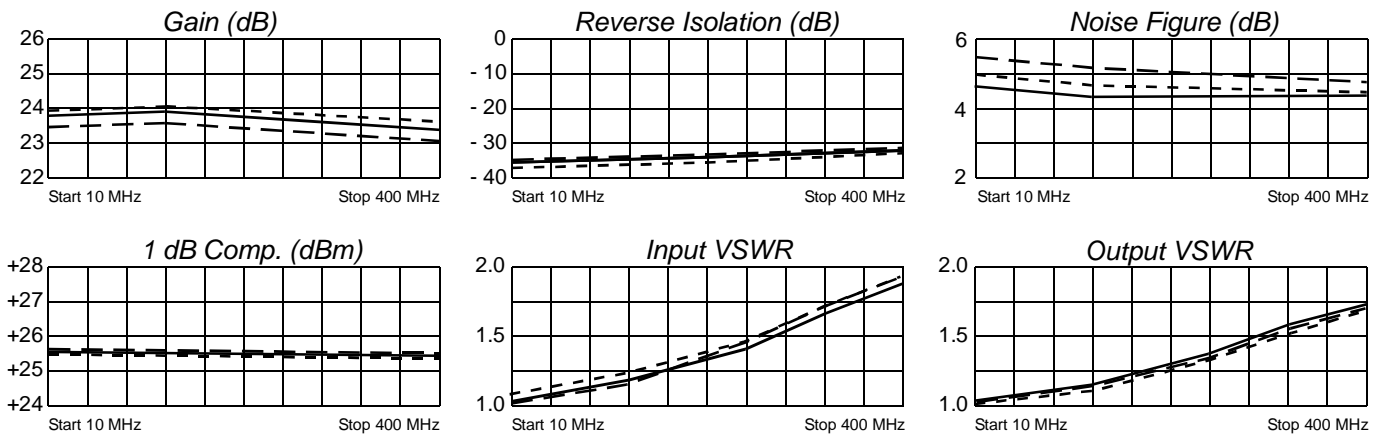
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +50 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +45 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +35 dBm (Typ.)

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 95 °C  
 DC Voltage ..... + 17 Volts  
 Continuous RF Input Power ..... + 10 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.
10	.09	-167	15.77	3	.0165	5	.10	-110
100	.10	-170	15.75	-51	.0172	-11	.06	-135
200	.15	-167	15.56	-102	.0184	-21	.12	-152
300	.20	-178	15.26	-155	.0200	-36	.19	-176
400	.26	-162	14.72	-152	.0218	-50	.27	-154



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