

# RF AMPLIFIER

## MODEL TZ9206

Available as: TZ9206, 4 Pin TO-8 (T4)  
 TN9206, 4 Pin Surface Mount (SM3)  
 FP9206, 4 Pin Flatpack (FP4)  
 BX9206, Connectorized Housing (H1)

### Features

- Low Cost; High Gain: 24 dB Typ.
- Medium Noise Figure: <4.5 dB Typ.
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +42 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +34 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +18 dBm (Typ.)

### Specifications

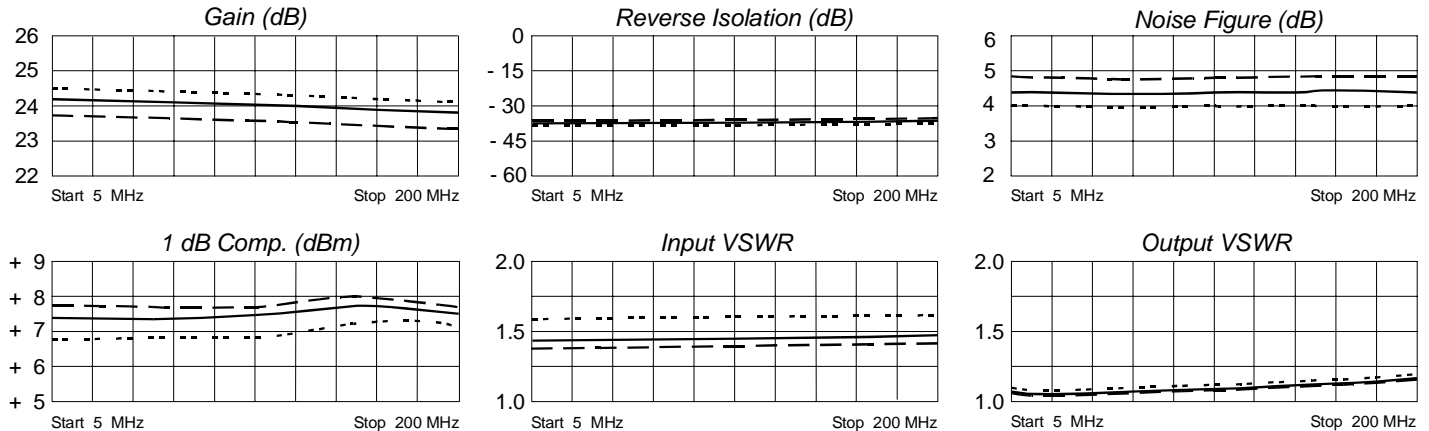
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 200 MHz	5 - 200 MHz
Gain (dB)	24	22.0 Min.
Power @ 1 dB Comp. (dBm)	+7.5	+6.0 Min.
Reverse Isolation (dB)	-35	-33 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	<4.5	5.5 Max.
Power Vdc	+15	+15
mA	37	41 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 ..... + 6 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	.18	-172	16.09	5	0.02	8	.02	-114
10	.18	-176	16.13	0	0.01	6	.01	-128
50	.18	178	16.04	-17	0.01	1	.02	-142
100	.19	174	15.82	-35	0.01	10	.03	-157
150	.19	170	15.59	-52	0.01	6	.05	-173
200	.19	165	15.31	-69	0.02	8	.07	173
250	.19	160	15.02	-86	0.02	10	.11	160



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 Rev. 2/23/07

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001