

RF AMPLIFIER

MODEL TZ9203

Available as: TZ9203, 4 Pin TO-8 (T4)
 TN9203, 4 Pin Surface Mount (SM3)
 FP9203, 4 Pin Flatpack (FP4)
 BX9203, Connectorized Housing (H1)

Features

- Lower Cost; High Gain: 31.5 dB Typ.
- Low Noise Figure: <3.5 dB Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +41 dBm (Typ.)
 Second Order Two Tone Intercept Point +35 dBm (Typ.)
 Third Order Two Tone Intercept Point +19 dBm (Typ.)

Specifications

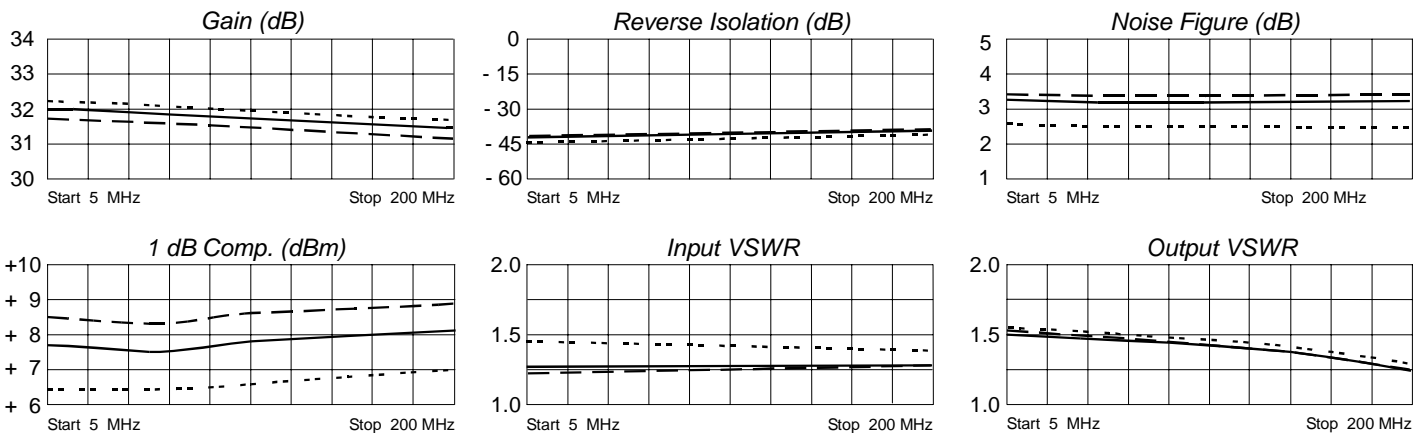
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 200 MHz	5 - 200 MHz
Gain (dB)	31.5	30.0 Min.
Power @ 1 dB Comp. (dBm)	+7.5	+6.0 Min.
Reverse Isolation (dB)	-40	-36 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<3.5	4.0 Max.
Power Vdc	+15	+15
mA	35	40 Max.

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.)

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

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	.12	-166	39.88	2	.01	6	.20	-6
25	.12	-173	39.72	-12	.00	12	.19	-6
50	.12	-173	39.59	-24	.01	7	.19	-11
100	.12	-167	38.95	-48	.01	19	.17	-22
150	.13	-165	38.35	-72	.01	46	.15	-34
200	.12	-161	37.76	-96	.01	22	.11	-49



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