

RF AMPLIFIER

MODEL *TM6203*

Available as: TM6203, 4 Pin TO-8 (T4)
 TN6203, 4 Pin Surface Mount (SM3)
 FP6203, 4 Pin Flatpack (FP4)
 BX6203, Connectorized Housing (H1)

Features

- High Output Power: +25 dBm Typical
- High Third Order Intercept: +37 dBm 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	5 - 500 MHz	5 - 500 MHz
Gain (dB)	14.5	13 Min.
Power @ 1 dB Comp. (dBm)	25	22.5 Min.
Reverse Isolation (dB)	-14	-13 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<5.0	7.5 Max.
Power Vdc	+15	+15
mA	125	135 Max.

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

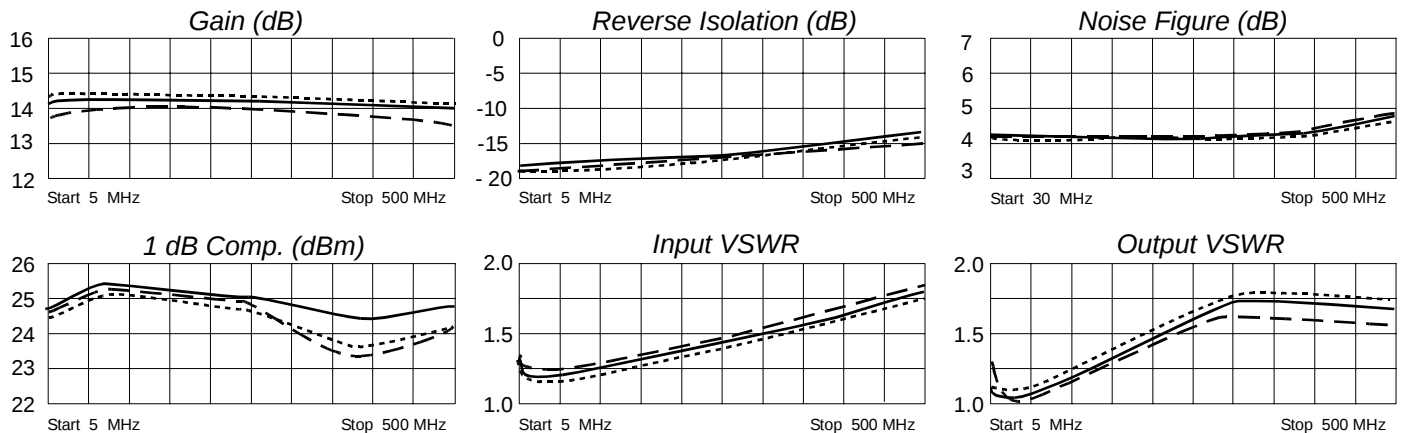
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +51 dBm (Typ.)
 Second Order Two Tone Intercept Point +45 dBm (Typ.)
 Third Order Two Tone Intercept Point +37 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 + 18 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	.09	-60	5.15	-172	.12	10	.07	-101
50	.04	-42	5.24	166	.12	-1	.05	-75
100	.05	-58	5.21	151	.12	-2	.11	-102
200	.08	-89	5.13	121	.14	-8	.20	-129
300	.13	-118	5.04	91	.15	-17	.26	-155
400	.19	-150	4.95	60	.18	-30	.28	176
500	.27	169	4.79	27	.20	-47	.24	134



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 03/23/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001
 www.DataSheet4U.com