

# RF AMPLIFIER

## MODEL *TM6152*

Available as: TM6152, 4 Pin TO-8 (T4)  
 TN6152, 4 Pin Surface Mount (SM3)  
 FP6152, 4 Pin Flatpack (FP4)  
 BX6152, Connectorized Housing (H1)

### Features

- 5 Volt Bias
- Low Noise Figure: 2.9 dB Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +36 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +28 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +21 dBm (Typ.)

### Specifications

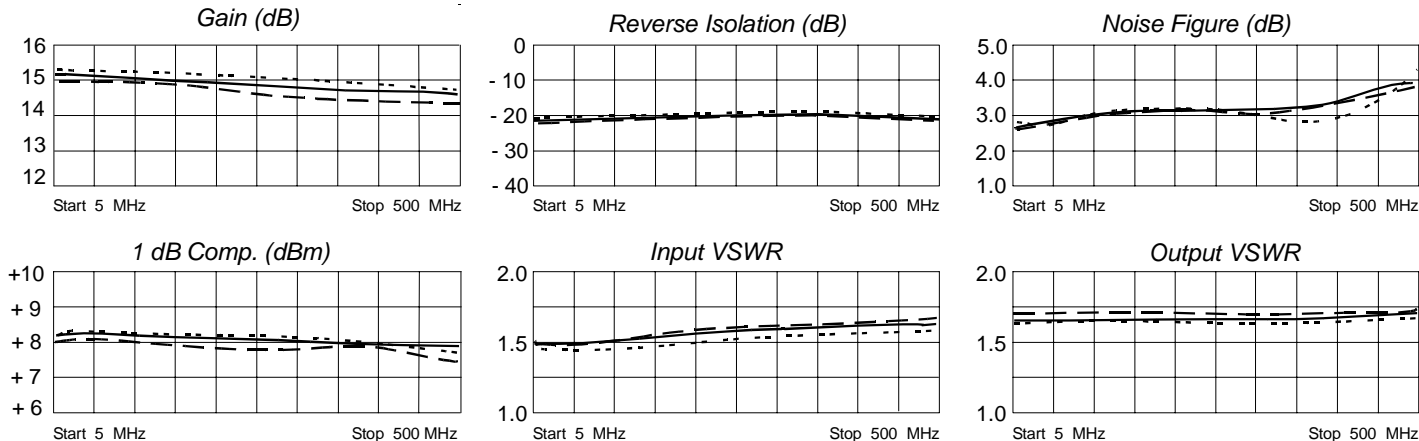
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	15	13 Min.
Power @ 1 dB Comp. (dBm)	8	6.5 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In	1.7:1	2.0:1 Max.
Out	1.7:1	2.0:1 Max.
Noise Figure (dB)	2.9	4.5 Max.
Power Vdc	+5	+5 Min.
mA	18	20 Max.

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

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 125 °C  
 Storage Temperature ..... -62°C to + 150 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 9 Volts  
 Continuous RF Input Power ..... + 13 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	.11	- 43	5.90	-176	.09	-177	.27	- 16
50	.09	- 58	5.86	165	.09	161	.25	- 29
100	.11	- 86	5.81	148	.09	141	.26	- 52
200	.16	-129	5.72	117	.10	106	.29	- 95
300	.19	-171	5.72	84	.10	75	.30	-133
400	.21	134	5.68	49	.10	46	.29	-170
500	.28	70	5.42	10	.10	19	.23	144



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 11/02/04

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