RF AMPLIFIER
MODEL *TM6198*

Available as: TM6198, 4 Pin TO-8 (T4)
TN6198, 4 Pin Surface Mount (SM3)
FP6198, 4 Pin Flatpack (FP4)
BX6198, Connectorized Housing (H1)

Features

- Low +5 Volt Bias
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +44 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +38 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +30 dBm (Typ.)

Specifications

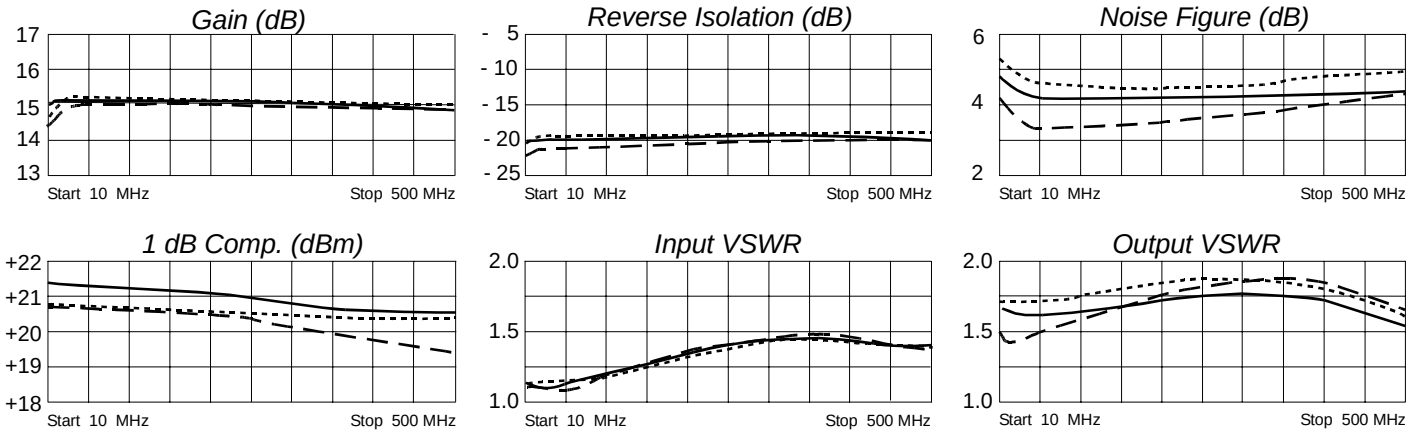
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	15	13.5 Min.
Power @ 1 dB Comp. (dBm)	+20	+18.0 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In Out	<1.4:1 <1.75:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	4.5	6.0 Max.
Power Vdc mA	+5 70	+5 75 Max.

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

Maximum Ratings

Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 7 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power .... 100 Milliwatts (1 Minute Max.)
Maximum Peak Power. ..... 0.2 Watt (3 µsec Max.)

Typical Performance Data



Legend ——— *+ 25 ºC* – – – *+ 85 ºC* - - - - - - *-55 ºC*

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
10	.08	- 61	6.00	-173	.0952	-174	.25	- 8
20	.06	- 81	6.13	179	.0969	178	.24	- 13
50	.07	-100	6.13	168	.0983	165	.23	- 24
100	.10	-114	6.05	154	.0997	148	.23	- 42
200	.17	-136	5.88	126	.1014	118	.26	- 74
300	.21	-158	5.75	100	.1101	90	.27	-100
400	.19	-175	5.66	72	.1149	64	.26	-117
500	.15	179	5.53	43	.1226	41	.23	-121

Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 12/09/04
www.spectrummicrowave.com *Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001*