

# 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 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 °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

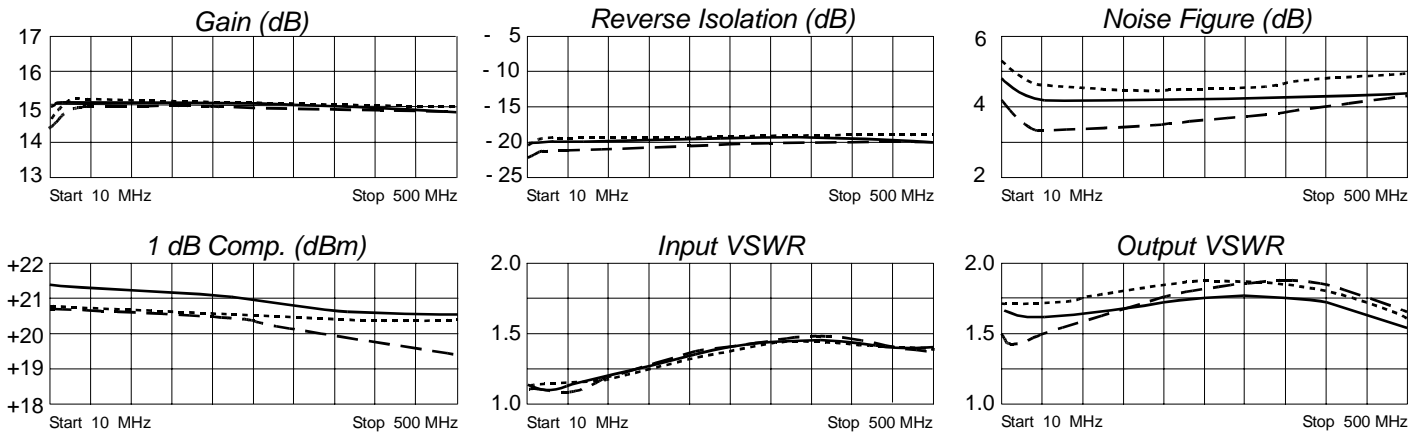
CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		10 - 500 MHz	10 - 500 MHz
Gain (dB)		15	13.5 Min.
Power @ 1 dB Comp. (dBm)		+20	+18.0 Min.
Reverse Isolation (dB)		-19	-18 Max.
VSWR	In	<1.4:1	2.0:1 Max.
	Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)		4.5	6.0 Max.
Power	Vdc	+5	+5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

### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	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



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