

# RF AMPLIFIER

## MODEL *TM6118*

Available as: TM6118, 4 Pin TO-8 (T4)  
 TN6118, 4 Pin Surface Mount (SM3)  
 FP6118, 4 Pin Flatpack (FP4)  
 BX6118, Connectorized Housing (H1)

### Features

- Low Noise Figure: 1.5 dB Typical
- High IP3: +33 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	10 - 200 MHz	10 - 200 MHz
Gain (dB)	10	10 ± 0.6 Min.
Power @ 1 dB Comp. (dBm)	+18	+16.5 Min.
Reverse Isolation (dB)	-12.5	-12 Max.
VSWR In	1.2:1	2.0:1 Max.
Out	1.2:1	2.0:1 Max.
Noise Figure (dB)	1.5	2.0 Max.
Power Vdc	+15	+15
mA	18	20 Max.

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

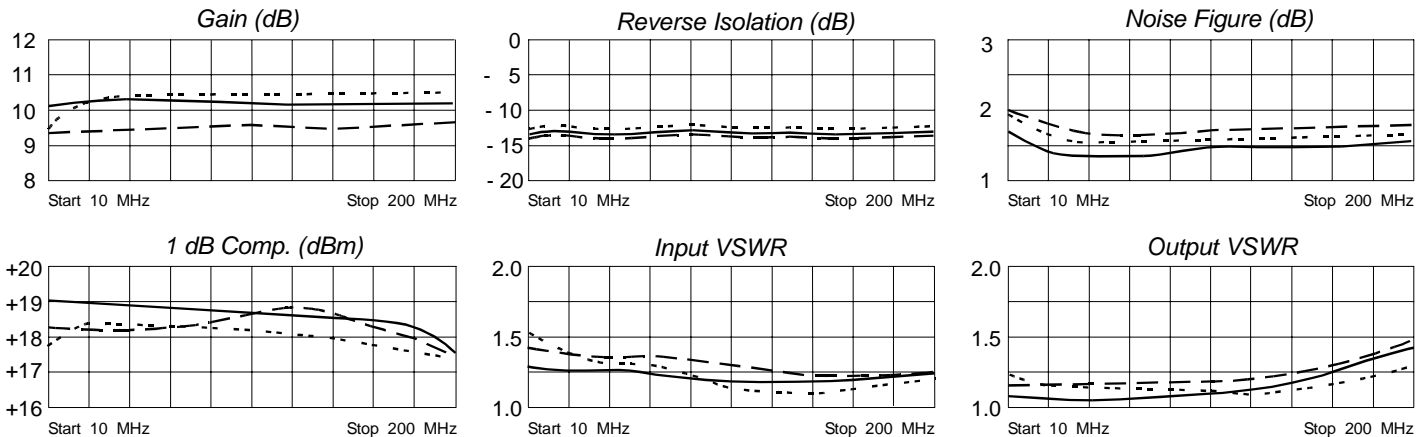
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +59 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +55 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +33 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 ..... + 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	.14	169	3.18	4	.23	4	.05	112
25	.12	171	3.24	-5	.23	-4	.02	92
50	.12	171	3.23	-14	.23	-12	.02	108
100	.09	172	3.21	-29	.23	-27	.05	125
150	.08	-164	3.24	-44	.22	-42	.10	122
200	.12	-135	3.22	-61	.21	-57	.17	113



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