

# RF AMPLIFIER

## MODEL *TM5182*

Available as: TM5182, 4 Pin TO-8 (T4)  
 TN5182, 4 Pin Surface Mount (SM3)  
 FP5182, 4 Pin Flatpack (FP4)  
 BX5182, Connectorized Housing (H1)

### Features

- Output Power: +25 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+50 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+45 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+36 dBm (Typ.)

### Specifications

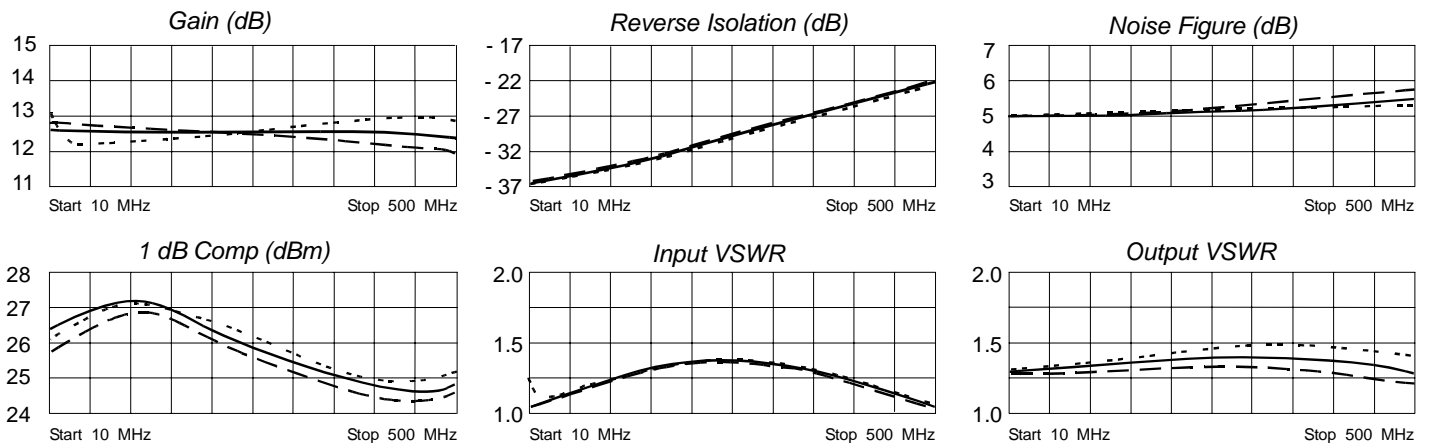
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10-500 MHz	10-500 MHz
Gain (dB)	12.5	12.0 Min.
Power @ 1 dB Comp. (dBm)	+25	+23 Min.
Reverse Isolation (dB)	22.5	22 Min.
VSWR In	1.4:1	1.5:1 Max.
Out	1.4:1	1.5:1 Max.
Noise Figure (dB)	6.0	8.0 Max.
Power Vdc	+15	+15 Min.
mA	145	150 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 ..... + 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	.04	-28	4.21	-179	.015	5	.13	-172
100	.11	-102	4.21	155	.016	21	.13	180
200	.15	-137	4.21	129	.022	38	.15	171
300	.15	-164	4.26	102	.035	41	.17	147
400	.10	171	4.27	74	.054	32	.16	108
500	.03	116	4.15	43	.076	13	.13	49



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