RF AMPLIFIER
MODEL *TM5119*

Available as: TM5119, 4 Pin TO-8 (T4)
TN5119, 4 Pin Surface Mount (SM3)
FP5119, 4 Pin Flatpack (FP4)
BX5119, Connectorized Housing (H1)

Features

- Low Noise Figure: 2.25 dB Typical
- Medium Output Power: +16 dBm Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point..... +49 dBm (Typ.)
Second Order Two Tone Intercept Point..... +44 dBm (Typ.)
Third Order Two Tone Intercept Point..... +32 dBm (Typ.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	5-500 MHz	5-500 MHz
Gain (dB)	15.5	14.0 Min.
Power @ 1 dB Comp. (dBm)	+16	+14 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In Out	<1.75:1 <1.75:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	2.25	3.0 Max.
Power Vdc mA	+15 30	+15 35 Max.

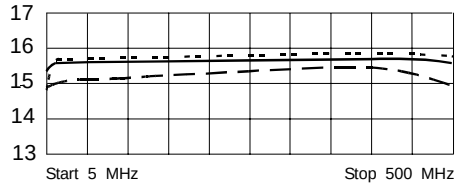
Note: Care should always be taken to effectively ground the case of each unit.

Maximum Ratings

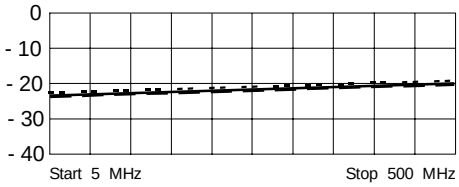
Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 18Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power..... 0.5 Watt (3 µsec Max.)

Typical Performance Data

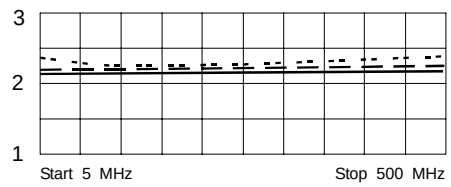
Gain (dB)



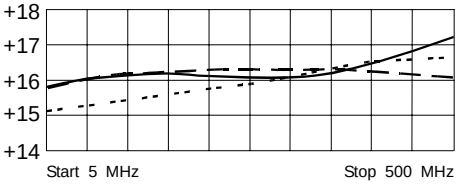
Reverse Isolation (dB)



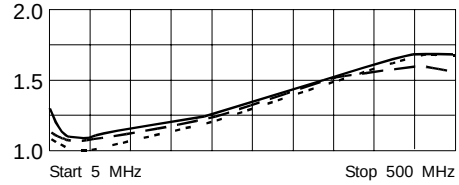
Noise Figure (dB)



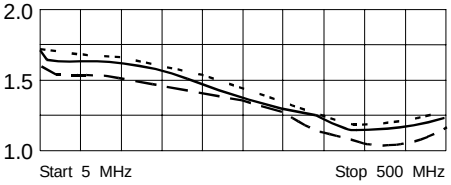
1 dB Comp. (dBm)



Input VSWR (dB)



Output VSWR (dB)



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
5	.11	- 57	5.84	-164	.09	-163	.26	- 14
50	.05	- 29	6.00	169	.09	168	.24	- 12
100	.06	- 41	6.00	157	.10	151	.23	- 22
200	.11	- 66	6.04	132	.10	123	.19	- 44
300	.18	-100	6.13	106	.11	98	.12	- 77
400	.23	-139	6.12	78	.11	75	.05	-150
500	.26	178	5.89	48	.11	52	.12	104

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