

# RF AMPLIFIER

## MODEL *TM9318*

Available as: TM9318, 4 Pin TO-8 (T4)  
 TN9318, 4 Pin Surface Mount (SM3)  
 FP9318, 4 Pin Flatpack (FP4)  
 BX9318, Connectorized Housing (H1)

### Features

- Medium Output Power: +16 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+48 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+42 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+30 dBm (Typ.)

### Specifications

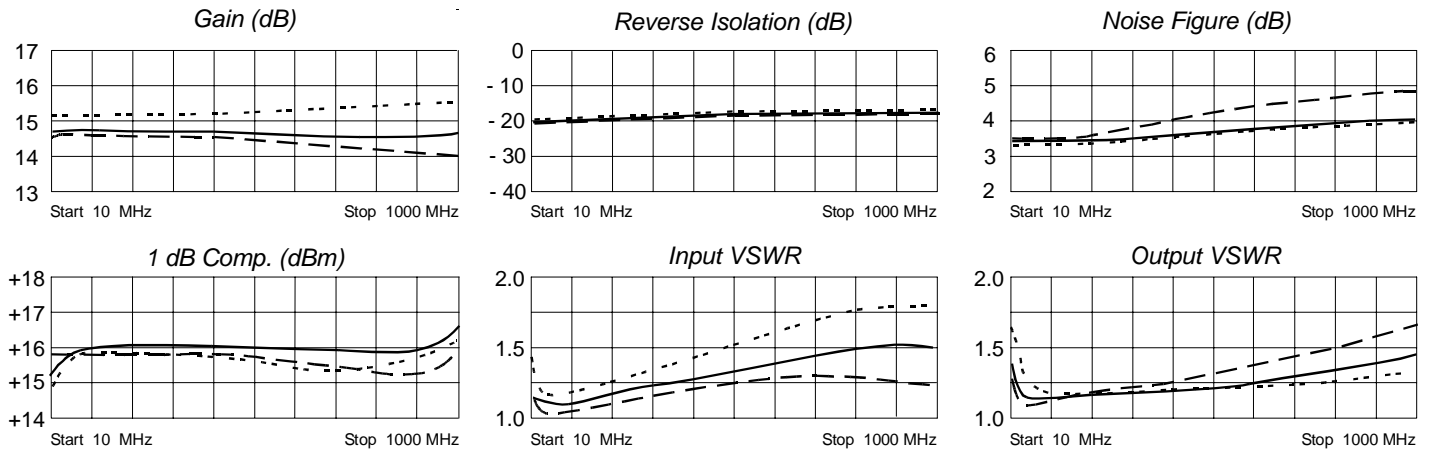
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1000 MHz	10 - 1000 MHz
Gain (dB)	14.7	13.5 Min.
Power @ 1 dB Comp. (dBm)	+16	+14.5 Min.
Reverse Isolation (dB)	-18.5	-17 Max
VSWR In	1.5:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise figure (dB)	3.75	5.5 Max.
Power Vdc	+15	+15
mA	47	50 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	.11	-78	5.43	-170	.11	11	.16	116
100	.02	117	5.65	167	.11	-2	.05	84
200	.06	82	5.61	152	.11	-6	.05	54
400	.11	51	5.52	123	.11	-15	.08	-6
600	.14	24	5.46	94	.11	-22	.13	-54
800	.16	-10	5.45	65	.11	-27	.18	-96
1000	.16	-61	5.49	34	.10	-32	.22	-139



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