

# RF AMPLIFIER

## MODEL *TM5834*

Available as: TM5834, 4 Pin TO-8 (T4)  
 TN5834, 4 Pin Surface Mount (SM3)  
 FP5834, 4 Pin Flatpack (FP4)  
 BX5834, Connectorized Housing (H1)

### Features

- High Output Power: +27.5 dBm Typical
- High IP<sub>3</sub>: +40 dBm
- 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	10-100 MHz	10-100 MHz
Gain (dB)	19.7 ± 0.5	18.7 Min./ 20.7 Max.
Power @ 1 dB Comp. (dBm)	+27.5	+26 Min.
Reverse Isolation (dB)	-25	-24 Max.
VSWR In	1.7:1	2.0:1 Max.
Out	1.3:1	2.0:1 Max.
Noise figure (dB)	<3.5	4.5 Max.
Power Vdc	+15	+15 Min.
mA	135	145 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 ..... +58 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +52 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +40 dBm (Typ.)

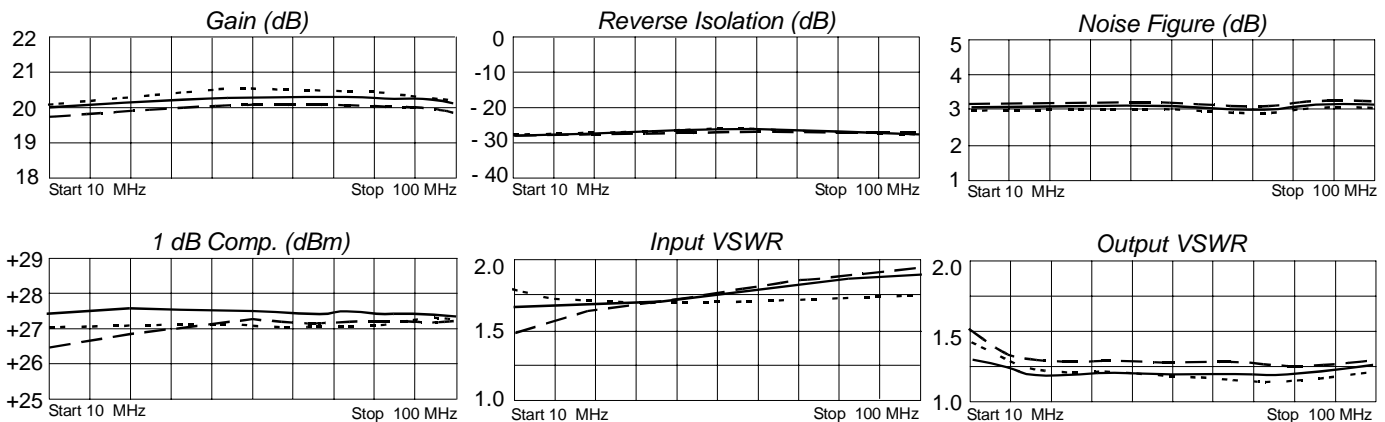
### Maximum (NO DAMAGE) Ratings

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 .... 100 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Revision 2/1/2021

ECN: Continuous Input Power changed from +18 dBm to +13 dBm

### 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
5	.21	-54	8.79	-127	.04	-124	.34	72
10	.16	-29	9.89	-157	.05	-157	.14	40
20	.16	-27	10.12	-175	.05	-178	.09	26
50	.19	-50	10.11	164	.05	160	.09	18
75	.21	-72	10.00	151	.05	145	.09	12
100	.24	-91	9.84	139	.05	132	.09	5
150	.32	-126	9.26	116	.06	108	.06	-6



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