

# RF AMPLIFIER

## MODEL QBH-5847

Available as: QBH-5847, F-Pack (E52-18563)

### Features

- High Gain: 9.0 dB Typical
- High Power: +10 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	30 - 1000 MHz	30 - 1000 MHz
Gain (dB)	9.0 ± 1.0	—
Gain vs. Temperature	—	+0.8/-1.2 Max.
Gain Flatness	2.0	2.0 Max.
Reverse Isolation (dB)	-22	-22 Min.
VSWR In	1.8:1	2.0:1 Max.
VSWR Out	1.8:1	2.0:1 Max.
1 dB Compression (dBm)	+10	+9 Min.
Output Intercept point 3rd Order	+23	+22 Min.
2nd Order	+33	+30 Min.
Noise Figure (dB)	4.8	5.5 Max.
Power Vdc	+15	+15
mA	27	29 Max.

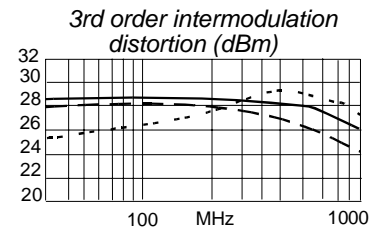
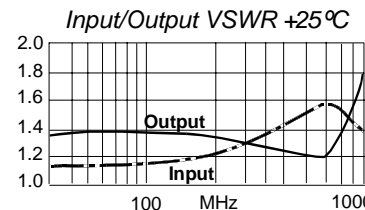
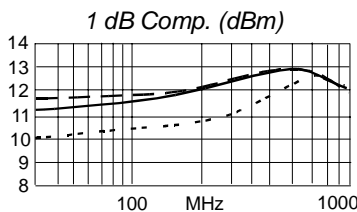
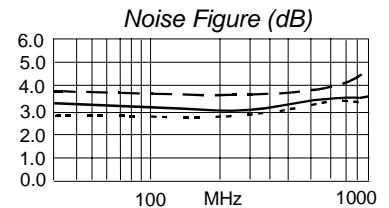
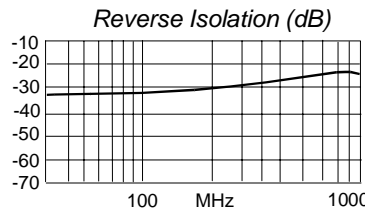
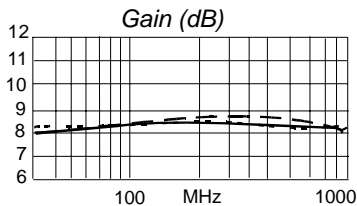
### Maximum Ratings

Ambient Operating Temperature ..... -55°C to +125 °C  
 Storage Temperature ..... -65°C to + 150 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 19 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.)

#### Note:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

### Typical Performance Data



Legend ——— + 25 °C    - - - - + 85 °C    ······ -55 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB    Ang	-- S21-- dB    Ang	-- S12-- dB    Ang	-- S22-- dB    Ang
30	-24.8    57.9	8.0    178.6	-34.6    17.9	-16.5    -1.4
60	-24.4    21.9	8.1    167.9	-34.0    12.1	-16.2    -7.7
80	-23.8    4.6	8.2    161.7	-33.8    10.0	-16.2    -11.7
100	-23.2    -9.8	8.2    155.7	-33.4    7.8	-16.2    -15.4
300	-17.5    -102.6	8.4    98.5	-29.8    -8.9	-17.1    -54.7
500	-13.9    -173.4	8.4    41.8	-26.7    -41.2	-19.5    -107.9
700	-13.0    115.6	8.4    -15.3	-24.5    -83.4	-20.2    169.9
900	-14.9    29.9	8.3    -73.3	-23.5    -137.0	-14.4    90.9
1000	-16.5    -27.0	8.3    -103.5	-23.6    -170.5	-11.5    58.5



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 03/11/05

www.SpectrumMicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001