

# RF AMPLIFIER

## MODEL QBH-8709

Available as: QBH-8709, Hybrid SM (E52-19422)

### Features

- High Gain: 16.0 dB Typical
- High Power: +18.5 dBm Typical
- Operating Temp. - 40 °C to +70 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -40 °C to +70 °C
Frequency	1930 - 1990 MHz	1930 - 1990 MHz
Gain (dB)	16.0 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	0.5	0.8 Max.
Reverse Isolation (dB)	-26	-25 Min.
VSWR In	1.4:1	2.0:1 Max.
VSWR Out	1.4:1	2.0:1 Max.
1 dB Compression (dBm)	+18.5	+16 Min.
Output Intercept point 3rd Order	+30	+28 Min.
2nd Order	—	—
Noise Figure (dB)	1.5	2.0 Max.
Power Vdc	+12	+12
mA	85	100 Max.

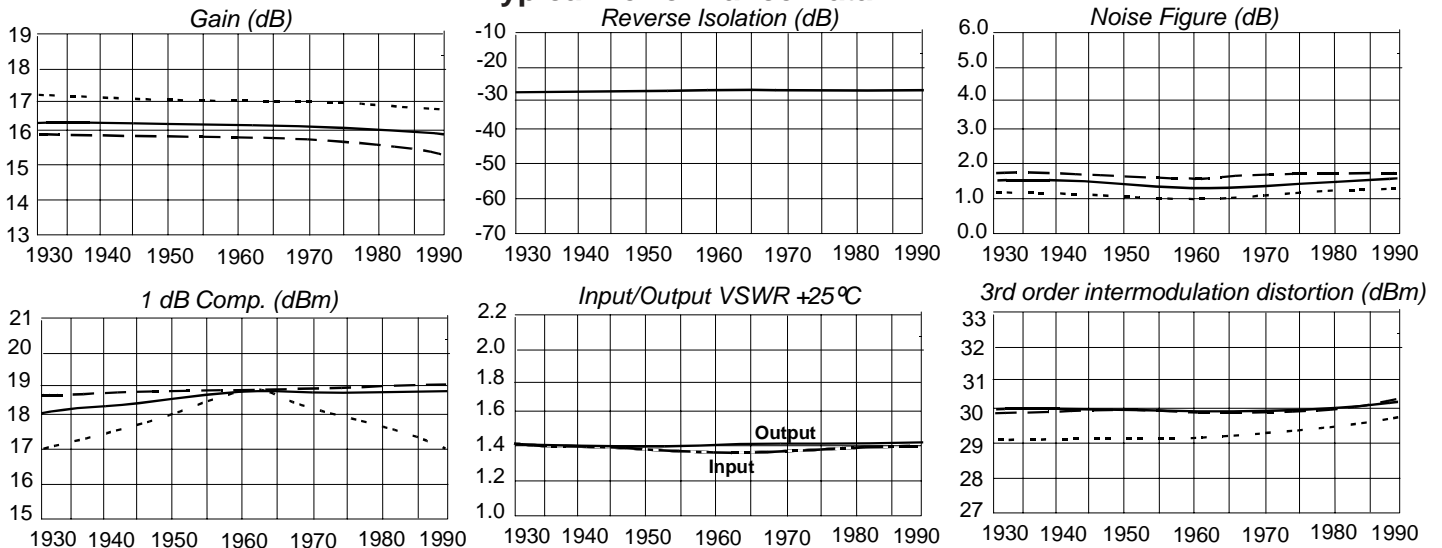
### Maximum Ratings

Ambient Operating Temperature ..... -55 °C to +125 °C  
 Storage Temperature ..... -65 °C to + 150 °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.)

#### Note:

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

### Typical Performance Data



### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB    Ang	-- S21-- dB    Ang	-- S12-- dB    Ang	-- S22-- dB    Ang
1930	-15.1   -46.8	16.3   152.8	-26.3   77.7	-15.3   -39.7
1945	-15.9   -63.8	16.2   147.8	-26.4   73.1	-15.4   -49.9
1960	-16.3   -82.9	16.1   142.7	-26.4   69.7	-15.4   -61.2
1975	-16.0   -102.5	16.0   137.6	-26.5   64.1	-15.4   -73.7
1990	-15.4   -120.3	15.9   132.5	-26.5   60.5	-15.2   -86.6



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