RF Amplifier
High Gain: 16.0 dB

Model QBH-8709
1930 to 1990 MHz

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

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -40 ºC to +70 ºC
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
Power mA	85	100 Max.

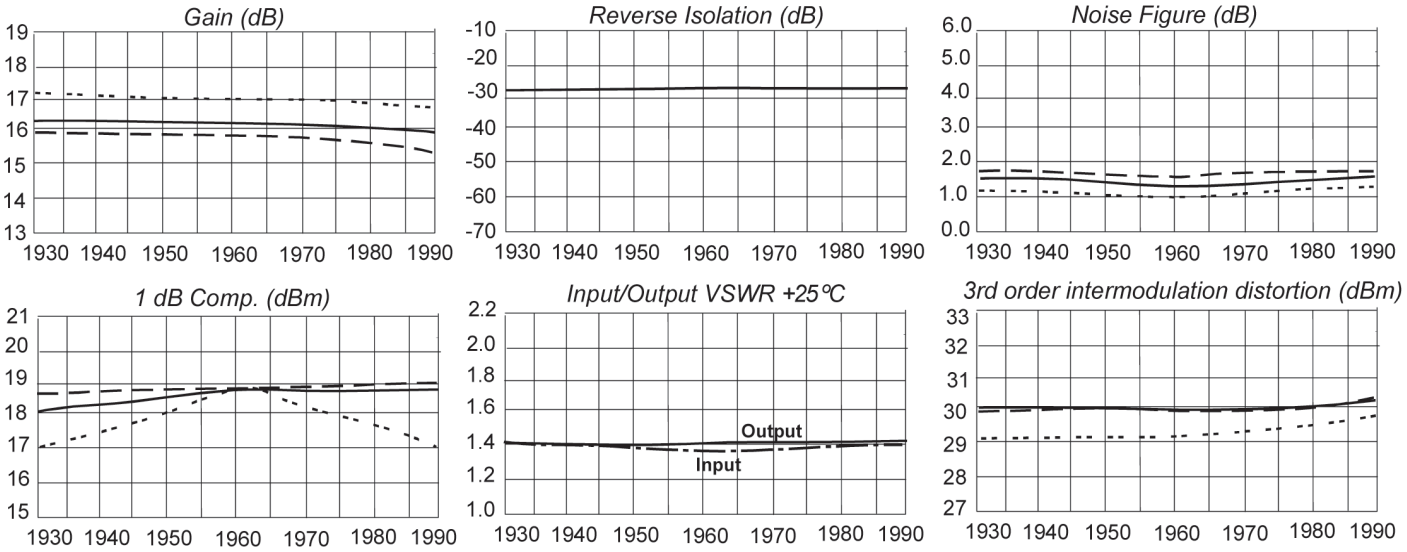
Maximum Ratings
Ambient Operating Temperature ..... -55 ºC to +125 ºC
Storage Temperature ..... -65 ºC to + 150 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 18 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 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.

Packaging Options (see Appendix)
QBH-8709, Hybrid SM (E52-19422)

Legend ——— + 25 ºC – – – + 70 ºC - - - - - - -40 ºC

Typical Performance Data



Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 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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