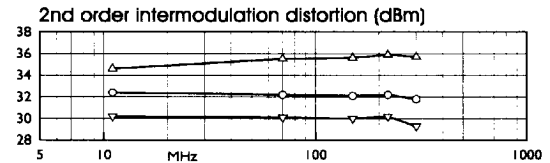
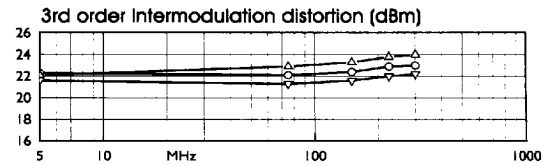
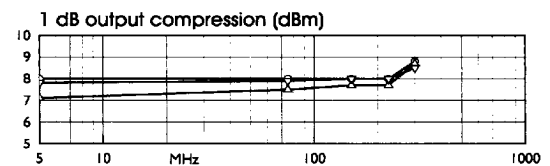
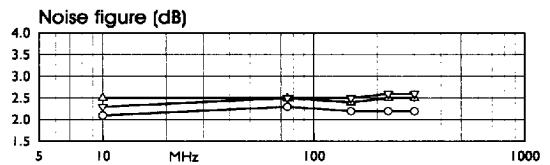
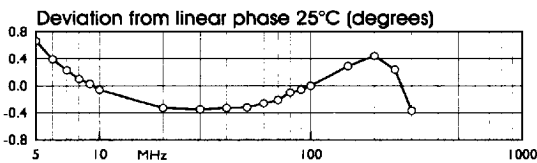
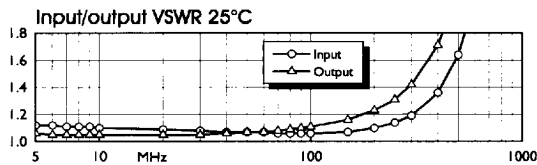
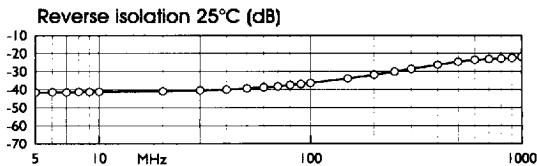
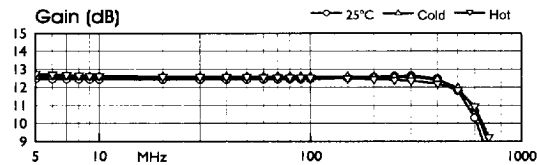


5 - 300 MHz Standard Hybrid Amplifier

QBH-105

- **5-300 MHz bandwidth**
- **Low noise figure**
- **TO-8 package**
- **Quick ship item**

Parameters	Specification limit		Units
Temperature	+25	-55 to +100	°C
Frequency range	5 - 300		MHz
Small signal gain	12.2 ± 0.5		dB
Gain vs. temperature	+0.5/-0.5		dB Max
Gain flatness	0.4	0.7	dB Max p-p
Reverse isolation	27	27	dB Min
VSWR Input	1.5:1	1.7:1	Max
Output	1.5:1	1.7:1	Max
1 dB compression	+8	+7	dBm Min
Output intercept point			
3rd Order	+22	+21	dBm Min
2nd Order	+30	+28	dBm Min
Noise figure	3.0	3.7	dB Max
DC power @ 15 Vdc ± 1%	18	19	mA Max
Gain vs. Vdc	0.10		dB/Volt Max
Housing	TO-8 (see page P-14 for details)		



Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-24.8	-171.9	12.6	35.8	-41.6	11.8	-31.3	47.0
10	-26.2	174.0	12.6	177.4	-41.2	10.7	-32.6	13.8
50	-29.5	157.0	12.6	163.1	-39.4	22.9	-29.8	-60.9
100	-30.3	83.1	12.6	146.0	-36.4	26.1	-25.7	-95.0
150	-29.2	81.0	12.6	128.8	-33.9	20.4	-22.5	-119.4
200	-27.1	150.4	12.6	111.5	-31.8	11.8	-19.8	-141.7
250	-24.3	144.4	12.6	93.8	-30.1	0.4	-17.3	-162.1
300	-21.5	135.8	12.6	75.8	-28.6	-11.9	-15.2	106.6

ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+18.0 Vdc
Pulse (transient)	+25.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Maximum input drive	1.2 VRMS
Thermal rise, junction-to-case	+11°C

H91-0105.0495, Revision C1

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