

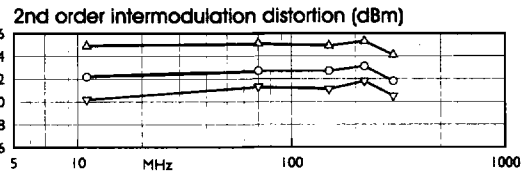
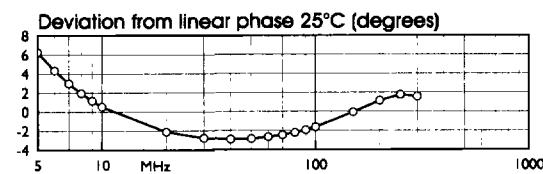
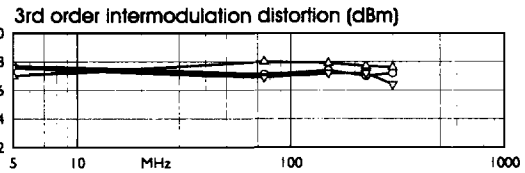
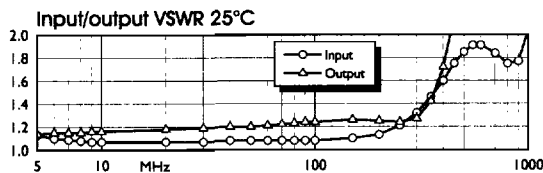
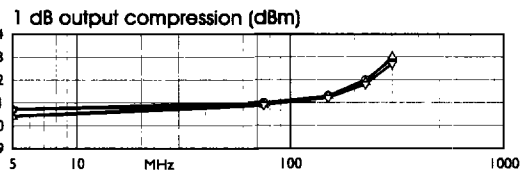
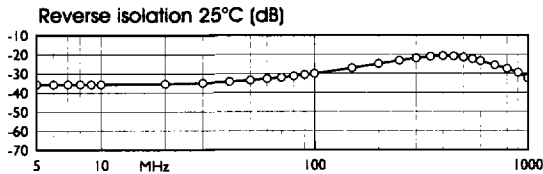
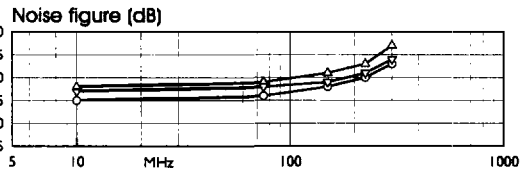
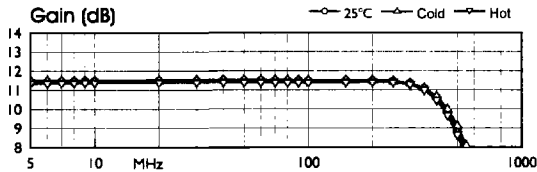
# 5 - 300 MHz Standard Hybrid Amplifier

# QBH-108

- 5-300 MHz bandwidth
- TO-8 package
- Unconditionally stable
- Quick ship item

Parameters	Specification limit		Units
Temperature	+25	-55 to +85	°C
Frequency range	5 - 300		MHz
Small signal gain	11.3 ± 0.5		dB
Gain vs. temperature		+0.2/-0.6	dB Max
Gain flatness	0.6	0.8	dB Max p-p
Reverse isolation	21	21	dB Min
VSWR Input	1.5:1	1.5:1	Max
Output	1.5:1	1.5:1	Max
1 dB compression	+20	+19	dBm Min
Output intercept point			
3rd Order	+37	+36	dBm Min
2nd Order	+50	+48	dBm Min
Noise figure	6.5	7.2	dB Max
DC power @ 15 Vdc ± 1%	71	72	mA Max
Gain vs. Vdc	0.10		dB/Volt Max
Housing	TO-8 (see page P-14 for details)		

HYBRID



Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-24.2	-82.8	11.4	-170.1	-35.6	12.9	-23.7	26.4
10	-30.0	-49.8	11.5	-178.1	-35.7	11.4	-22.6	17.6
50	-28.5	-37.0	11.5	160.3	-33.5	27.8	-20.7	4.6
100	-27.9	-73.9	11.5	138.7	-30.0	33.5	-19.4	-7.1
150	-26.8	-117.5	11.5	117.5	-27.1	29.0	-18.7	-25.7
200	-24.1	-160.6	11.5	96.0	-24.9	19.8	-19.0	-52.9
250	-20.5	164.2	11.5	73.8	-23.2	7.6	-19.6	-94.1
300	-17.3	135.6	11.3	50.9	-21.9	-6.2	-18.5	-147.9

### ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining .....	+19.0 Vdc
Pulse (transient) .....	+25.0 Vdc
Temperature	
Operating .....	-55 to +125°C
Storage .....	-65 to +150°C
Maximum input drive .....	2.0 VRMS
Thermal rise, junction-to-case .....	+22°C

H91-0108.C495, Revision B1