

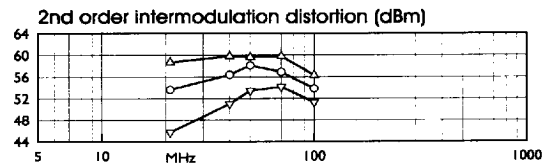
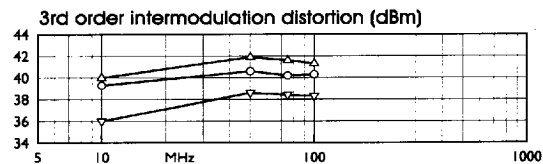
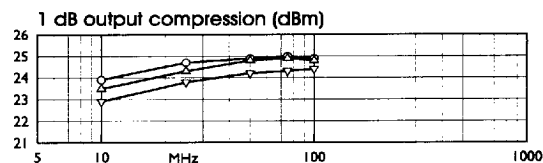
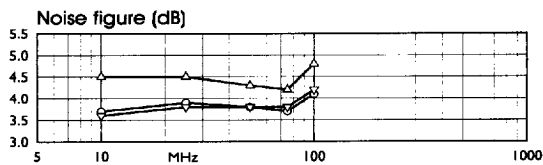
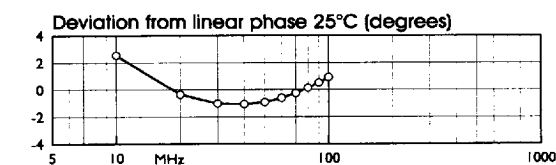
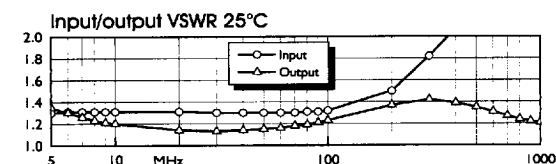
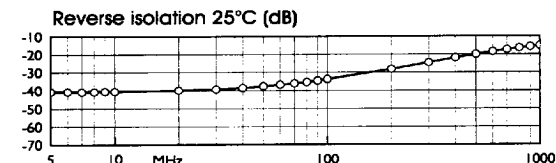
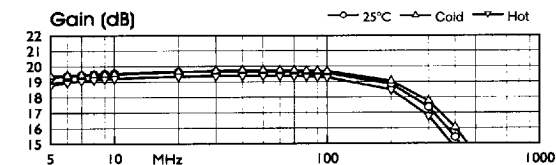
10 - 100 MHz Standard Hybrid Amplifier

QBH-125

- **10-100 MHz bandwidth**
- **Unconditionally stable**
- **High gain**
- **Quick ship item**

Parameters	Specification limit		Units
Temperature	+25	-55 to +85	°C
Frequency range	10 - 100		MHz
Small signal gain	19.6 ± 0.8		dB
Gain vs. temperature	+0.5/-1.0		dB Max
Gain flatness	0.5	0.6	dB Max p-p
Reverse isolation	33	32	dB Min
VSWR Input	1.5:1	1.5:1	Max
Output	1.5:1	1.5:1	Max
1 dB compression	+23	+21	dBm Min
Output intercept point			
3rd Order	+38	+33	dBm Min
2nd Order	+50	+43	dBm Min
Noise figure	4.5	5.0	dB Max
DC power @ 15 Vdc ± 1%	132	137	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
10	-17.4	-175.7	19.5	-176.6	-40.5	36.5	-21.0	92.2
20	-17.6	-177.7	19.6	-176.1	-39.9	31.8	-23.7	70.8
40	-17.7	-176.8	19.7	-166.6	-38.5	38.0	-23.7	51.7
60	-17.7	-175.0	19.6	-158.3	-36.7	43.3	-22.4	40.9
80	-17.5	-173.1	19.6	-150.3	-35.3	46.4	-21.1	31.6
100	-17.2	-170.9	19.5	-142.3	-33.8	48.2	-19.9	22.7

ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+16.5 Vdc
Pulse (transient)	+18.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Maximum input drive	1.2 VRMS
Thermal rise, junction-to-case	+36°C

H91-0125,0495, Revision A1

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