

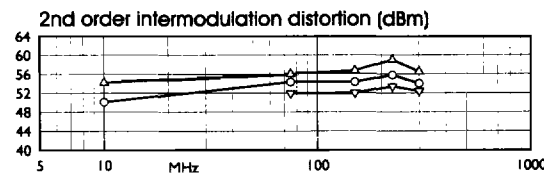
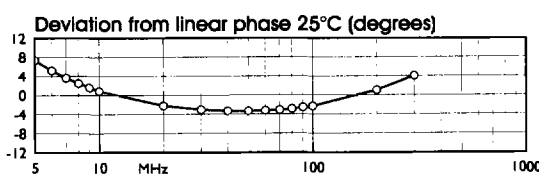
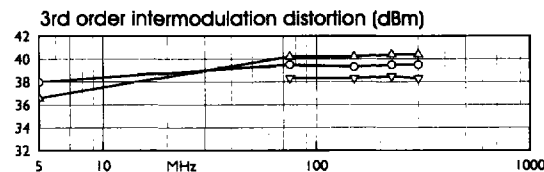
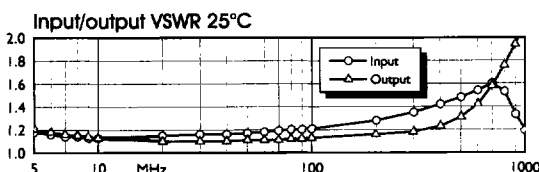
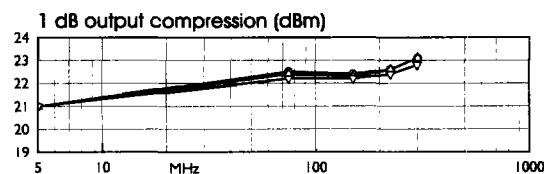
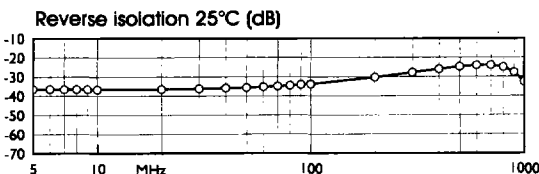
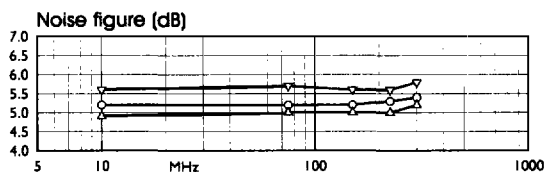
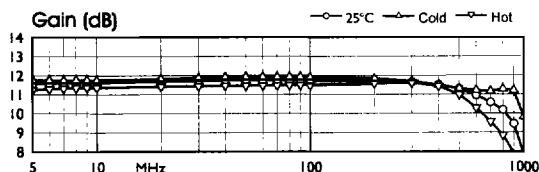
5 - 300 MHz Standard Hybrid Amplifier

QBH-223

- **5-300 MHz bandwidth**
- **High intercept points**
- **Guaranteed specifications over temperature**
- **Unconditionally stable**

Parameters	Specification limit		Units
Temperature	+25	-55 to +85	°C
Frequency range	5 - 300		MHz
Small signal gain	11.5 ± 0.5		dB
Gain vs. temperature	+0.5/-0.5		dB Max
Gain flatness	1.0	1.0	dB Max p-p
Reverse isolation	25	25	dB Min
VSWR Input	1.5:1	1.5:1	Max
Output	1.5:1	1.5:1	Max
1 dB compression	+21	+21	dBm Min
Output intercept point			
3rd Order	+36	+36	dBm Min
2nd Order	+50	+50	dBm Min
Noise figure	6.3	6.7	dB Max
DC power @ 15 Vdc ± 1%	94	94	mA Max
Gain vs. Vdc			dB/Volt Max
Housing	F-PACK .625 SMD (see page P-22 for details)		

HYBRID



Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-21.9	-36.2	11.6	-167.8	-36.4	27.2	-20.5	100.3
10	-24.1	-14.4	11.7	-176.2	-36.5	16.0	-24.1	78.9
50	-22.0	-0.2	11.8	164.2	-35.7	13.0	-26.1	27.2
100	-20.5	-6.9	11.7	146.0	-33.8	15.3	-24.7	11.4
200	-18.2	-24.8	11.7	110.9	-30.3	3.9	-23.2	-4.2
300	-16.6	-48.1	11.7	75.4	-27.8	-16.5	-22.3	-14.2

ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+20.0 Vdc
Pulse (transient)	+20.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Maximum input drive	2.0 VRMS
Thermal rise, junction-to-case	+46°C

H91-0223.0495, Revision B1