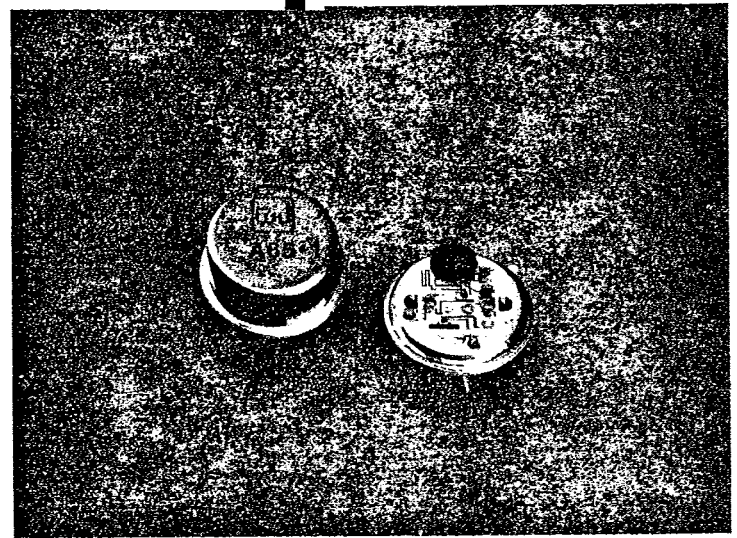


WJ-A65-1

10 TO 1200 MHz TO-8 CASCADABLE AMPLIFIER

- INTERMEDIATE GAIN BLOCK:
7.5 dB (TYP.)
- MEDIUM OUTPUT LEVEL:
+11 dBm (TYP.)
- HIGH THIRD ORDER I.P.:
+27 dBm (TYP.)
- LOW VSWR: <1.7:1 (TYP.)



Specifications

Characteristic	Typical	Guaranteed*	
		0° -50°C	-54° - +85°C
Frequency (Min.)	5-1300 MHz	10-1200 MHz	10-1200 MHz
Small Signal Gain (Min.)	7.5 dB	7.0 dB	6.5 dB
Gain Flatness (Max.)	±0.2 dB	±0.4 dB	±0.6 dB
Noise Figure (Max.)			
10-1000 MHz	<6.5 dB	7.5 dB	8.0 dB
1000-1200 MHz	7.5 dB	8.5 dB	9.0 dB
Power Output at 1 dB Compression (Min.)	>+11.0 dBm	+10.5 dBm	+10.0 dBm
VSWR (Max.) Input/Output	<1.7:1	2.0:1	2.0:1
DC Current at 15 Volts	34 mA	37 mA	39 mA

* Measured in a 50 ohm system at +15 Vdc nominal.

Typical Intermodulation Performance at 25°C

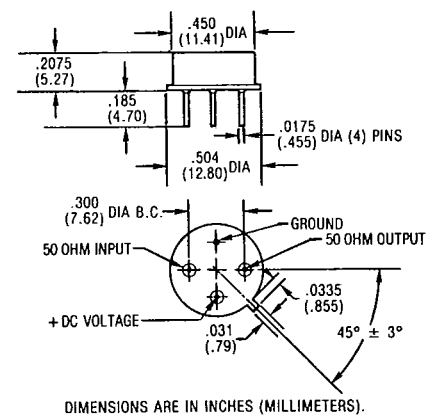
Second Order Harmonic IP	43 dBm (Typ.)
Second Order Two Tone IP	38 dBm (Typ.)
Third Order Two Tone IP	27 dBm (Typ.)

Absolute Maximum Ratings

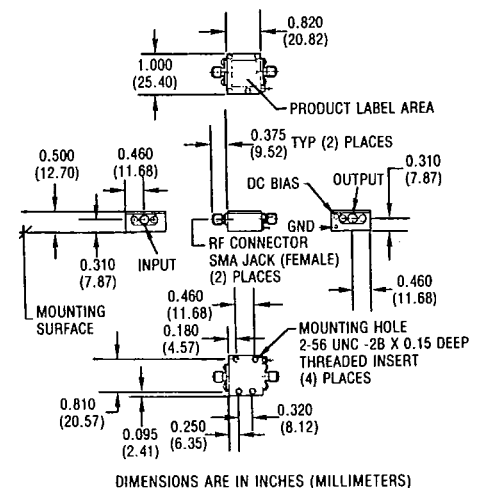
Ambient Operating Temperature	-54°C to +100°C
Storage Temperature	-62°C to +125°C
Maximum Case Temperature	125°C
Maximum DC Voltage	17 Volts
Maximum Continuous RF Input Power	+13 dBm
Maximum Short Term RF Input Power (1 Minute Max.)	50 Milliwatts
Maximum Peak Power	0.5 Watt (3 μsec Max.)
"S" Series Burn-In Temperature	125°C

Outline Drawings

A65 - 1

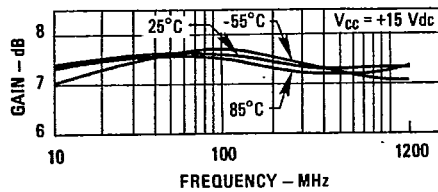


CA65 - 1



* WJ-CA65-1 is standard WJ-A65-1 installed in miniature SMA connector housing and guaranteed over 0°C to 50°C temperature range.

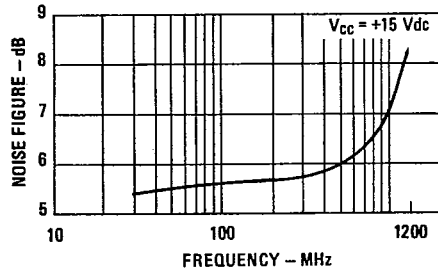
Gain



V_{CC} = 15

FREQ MHz	USNR IN	USNR OUT	GAIN dB
100.	1.3	1.3	7.6
200.	1.3	1.3	7.5
300.	1.4	1.3	7.4
400.	1.4	1.3	7.3
500.	1.5	1.3	7.3
600.	1.5	1.3	7.3
700.	1.5	1.3	7.3
800.	1.5	1.3	7.2
900.	1.4	1.3	7.2
1000.	1.3	1.4	7.2
1100.	1.2	1.4	7.2
1200.	1.0	1.5	7.2
1300.	1.2	1.6	7.0

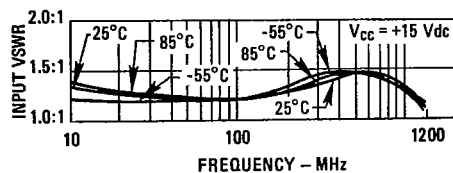
Noise Figure



Linear S-Parameters

FREQ MHz	S11 MAG	S11 ANG	S21 MAG	S21 ANG	S12 MAG	S12 ANG	S22 MAG	S22 ANG
100.	.13	155.4	2.39	165.9	.19	-3.8	.15	161.9
200.	.14	120.9	2.37	148.3	.20	-8.2	.14	139.8
300.	.16	94.1	2.34	132.6	.20	-13.2	.13	120.2
400.	.18	72.2	2.31	116.6	.21	-19.1	.12	99.1
500.	.19	52.0	2.32	101.1	.21	-25.3	.12	76.4
600.	.20	34.3	2.32	86.2	.22	-31.0	.12	54.5
700.	.21	17.7	2.31	71.4	.22	-37.8	.12	34.0
800.	.20	2.0	2.30	56.6	.22	-45.0	.13	13.1
900.	.17	-14.8	2.29	41.3	.23	-52.5	.14	-3.7
1000.	.14	-30.5	2.29	25.8	.23	-60.6	.16	-16.8
1100.	.08	-47.8	2.29	9.9	.23	-69.0	.17	-31.3
1200.	.01	179.7	2.28	-6.7	.23	-77.4	.20	-41.9
1300.	.11	108.9	2.24	-25.0	.23	-86.2	.22	-52.2

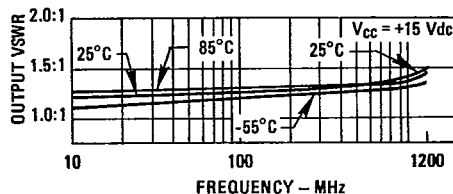
Input VSWR



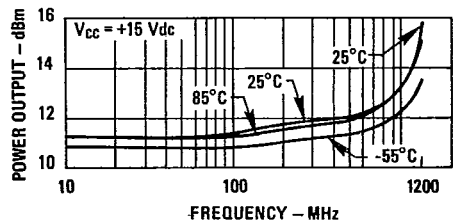
Deviation from Linear Phase, Command Group Delay

FREQ MHz	DEV LIN DEG	REL DEG	GAIN DEV dB	GAIN dB	GROUP DELAY N-SEC
100.	1.87	.00	.20	7.55	.49
200.	-.25	-17.56	.13	7.48	.46
300.	-.54	-33.29	.02	7.37	.44
400.	-1.10	-49.30	-.08	7.27	.44
500.	-1.11	-64.76	-.05	7.30	.42
600.	-.61	-79.70	-.05	7.30	.41
700.	.03	-94.50	-.10	7.26	.41
800.	.66	-109.32	-.13	7.22	.42
900.	.82	-124.60	-.15	7.20	.43
1000.	.77	-140.09	-.14	7.21	.44
1100.	.29	-156.02	-.15	7.21	.45
1200.	-.82	-172.58	-.20	7.15	.46

Output VSWR



Power Output*



* at 1 dB Compression.

Intercept Point

