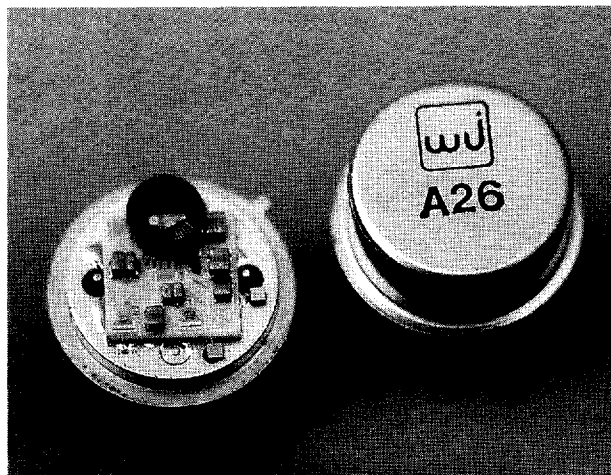


WJ-A26 / SMA26

10 to 1500 MHz
TO-8 CASCADABLE AMPLIFIER

- ◆ AVAILABLE IN SURFACE MOUNT
- ◆ HIGH GAIN -TWO STAGES: 20.5 dB (TYP.)
- ◆ HIGH OUTPUT LEVEL: +15 dBm (TYP.)
- ◆ LOW VSWR: < 1.4:1 (TYP.)



Specifications*

Characteristics	Typical	Guaranteed	
		0° to 50° C	-54° to +85° C
Frequency (Min.)	10-1600 MHz	10-1500 MHz	10-1500 MHz
Small Signal Gain (Min.)	20.5 dB	19.0 dB	18.5 dB
Gain Flatness (Max.)	±0.4 dB	±0.6 dB	±0.8 dB
Noise Figure (Max.)	5.0 dB	5.5 dB	6.0 dB
Power Output			
at 1 dB Compression (Min.)			
10-1000 MHz	+14.0 dBm	+13.0 dBm	+12.5 dBm
1000-1500 MHz	+16.0 dBm	+15.0 dBm	+14.5 dBm
VSWR (Max.) Input/Output	< 1.4:1	1.7:1	2.0:1
DC Current (Max.) at 15 Volts	64 mA	67 mA	70 mA

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

Notes:

1. WJ-CA26 is a standard WJ-A26 installed in a miniature SMA connector housing and guaranteed over 0°C to 50°C temperature range.

Typical Intermodulation Performance at 25°C

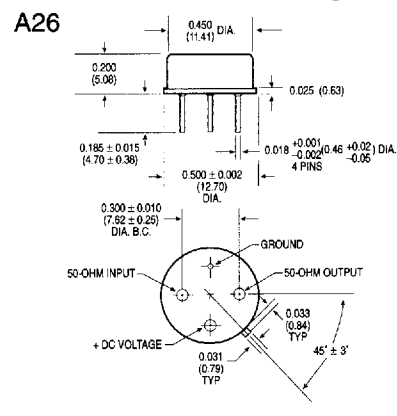
Second Order Harmonic Intercept Point.....+51 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+45 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+27 dBm (Typ.)

Absolute Maximum Ratings

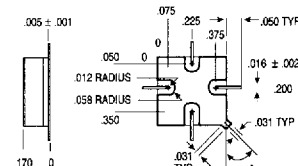
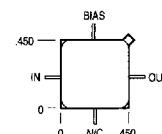
Storage Temperature-62°C to +125°C
 Maximum Case Temperature125°C
 Maximum DC Voltage.....+17 Volts
 Maximum Continuous RF Input Power.....+10 dBm
 Maximum Short Term RF Input Power.....100 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)
 "S" Series Burn-in Temperature (Case)125°C

Weight approximately 2.0 grams (0.07 oz.)

Outline Drawings

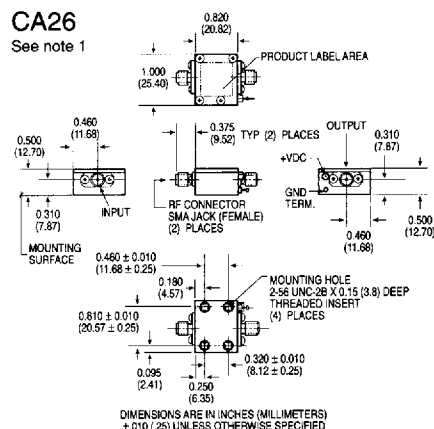


SMA26



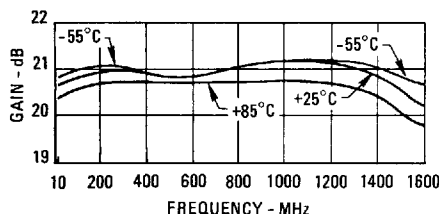
CA26

See note 1

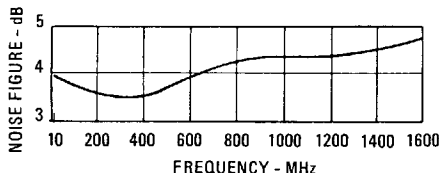


Typical Performance at 25°C

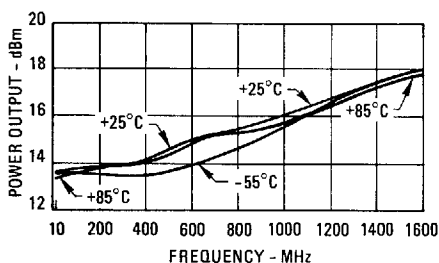
Gain



Noise Figure

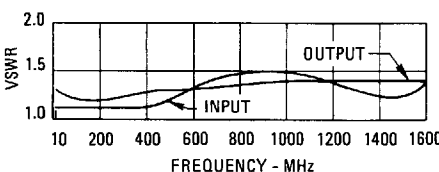


Power Output*

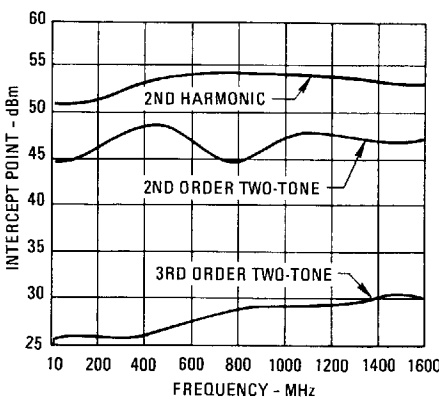


*@ 1 dB Gain Compression

VSWR



Intercept Point



Typical Automatic Test Data

V_{CC} = 15.0 V

Frequency MHz	VSWR IN	VSWR OUT	GAIN DB
1.0	2.5	2.1	16.5
2.0	1.8	1.9	18.4
5.0	1.3	1.3	20.4
10.0	1.2	1.2	20.7
50.0	1.2	1.0	21.0
100.0	1.2	1.1	21.1
200.0	1.2	1.1	21.2
300.0	1.2	1.1	21.0
400.0	1.1	1.1	20.7
500.0	1.0	1.0	20.5
600.0	1.0	1.1	20.9
700.0	1.0	1.1	21.1
800.0	1.1	1.1	21.4
900.0	1.1	1.1	21.6
1000.0	1.1	1.1	21.7
1100.0	1.1	1.1	21.6
1200.0	1.2	1.1	21.5
1300.0	1.2	1.1	21.3
1400.0	1.3	1.0	21.1
1500.0	1.5	1.2	20.9
1600.0	1.9	1.5	20.5
1700.0	2.9	1.8	19.7

Linear S-Parameters

Frequency MHz	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
1.0	.432	-117	6.646	35	.020	-33	.357	-149
2.0	.287	-172	8.319	31	.009	58	.313	163
5.0	.123	156	10.498	14	.022	25	.146	116
10.0	.082	161	10.892	6	.024	13	.076	96
50.0	.073	178	11.230	-9	.025	3	.016	-18
100.0	.076	171	11.317	-22	.026	2	.030	-100
200.0	.091	159	11.499	-47	.028	-1	.054	-160
300.0	.092	127	11.257	-73	.030	-5	.061	157
400.0	.063	82	10.798	-96	.032	-13	.041	121
500.0	.020	60	10.607	-116	.031	-21	.018	141
600.0	.008	101	11.030	-139	.030	-27	.029	142
700.0	.013	-50	11.374	-163	.030	-31	.031	99
800.0	.028	-118	11.712	173	.030	-36	.029	46
900.0	.041	-135	11.987	147	.030	-41	.037	-2
1000.0	.060	-166	12.121	121	.030	-45	.042	-43
1100.0	.069	166	12.084	94	.031	-52	.051	-85
1200.0	.075	133	11.912	67	.031	-58	.052	-111
1300.0	.086	95	11.662	40	.032	-64	.031	-127
1400.0	.116	46	11.378	11	.035	-71	.017	-33
1500.0	.191	2	11.153	-18	.038	-80	.085	-33
1600.0	.315	-38	10.632	-52	.042	-93	.186	-61
1700.0	.489	-76	9.669	-88	.047	-110	.291	-98

Thermal Data: V_{CC} = 15 Vdc

Thermal Resistance θ_{JC} 45°C/W
 Transistor Power Dissipation P_D 0.367 W
 Junction Temperature Rise Above Case T_{JC} ... 17°C