



The image shows two views of a 100 ohm 1/4 watt resistor. The left view is the top of the resistor, showing a cylindrical body with a black top surface and a silver band. The right view is the bottom of the resistor, showing the internal construction, including a small circuit board with a resistor and a capacitor, and a metal base.

- ## Outline Drawings

A70-3

DIMENSIONS ARE IN INCHES (MILLIMETERS)
±.005 (.13) UNLESS OTHERWISE SPECIFIED

SMA70-3

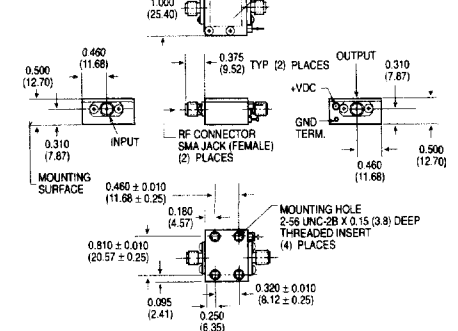
Technical drawing of a mechanical part with dimensions:

- Top view dimensions: .005 ± .001, .012 RADIUS, .050, .058 RADIUS, .350, .031 TYP, 45°.
- Side view dimensions: .170, 0.
- Other dimensions: .075, .225, .375, .050 TYP, .016 ± .002, .200.

DIMENSIONS ARE IN INCHES (MILLIMETERS)
±.010 (.25) UNLESS OTHERWISE SPECIFIED

CA70-3

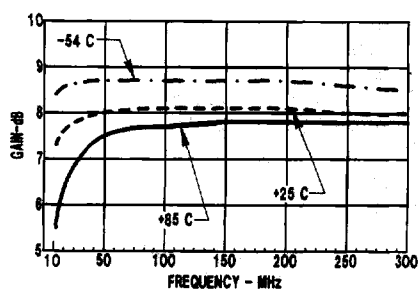
See note 1



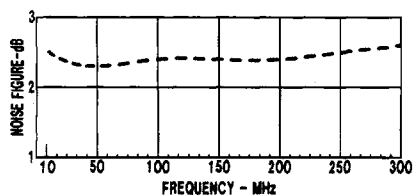
DIMENSIONS ARE IN INCHES (MILLIMETERS)
±.010 (.25) UNLESS OTHERWISE SPECIFIED

Typical Performance at 25°C

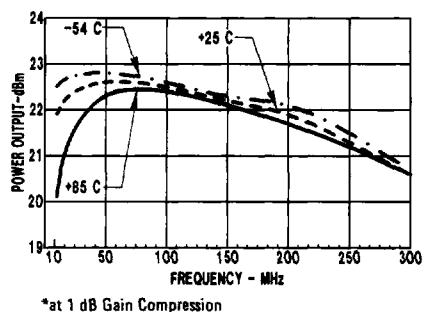
Gain vs. Frequency vs. Temperature



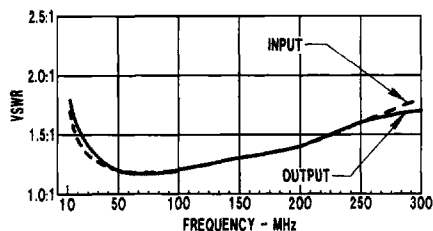
Noise Figure



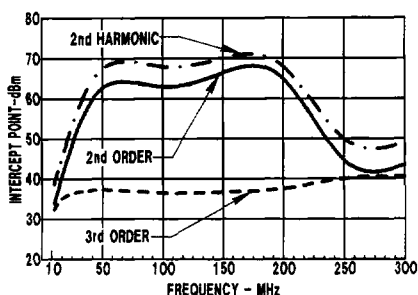
Power Output *



Input/Output VSWR



Intercept Points



Typical Automatic Test Data

WJ-A70-3/SMA70-3

V_{CC} = 15.0 V

Frequency MHz	VSWR IN	VSWR OUT	GAIN DB
10.0	1.9	2.1	7.2
20.0	1.5	1.5	7.7
50.0	1.3	1.3	8.0
100.0	1.3	1.2	8.0
150.0	1.4	1.3	8.1
200.0	1.6	1.4	8.2
250.0	1.8	1.6	8.2
300.0	2.1	1.8	8.3
350.0	2.6	2.0	8.2
400.0	3.1	2.4	8.3

Linear S-Parameters

Frequency MHz	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
10.0	.321	133	2.295	23	.263	23	.348	136
20.0	.198	138	2.425	10	.275	10	.208	135
50.0	.125	160	2.506	-3	.283	-2	.116	150
100.0	.128	-172	2.526	-14	.283	-13	.100	179
150.0	.171	-163	2.537	-24	.277	-23	.126	-167
200.0	.229	-165	2.570	-33	.273	-32	.167	-165
250.0	.287	-172	2.563	-43	.263	-41	.216	-168
300.0	.362	179	2.601	-53	.254	-50	.275	-175
350.0	.442	168	2.577	-64	.236	-61	.340	176
400.0	.510	154	2.600	-75	.222	-71	.409	166

V_{CC} = 12.0 V

Frequency MHz	VSWR IN	VSWR OUT	GAIN DB
10.0	1.3	1.4	7.8
20.0	1.3	1.3	8.0
50.0	1.2	1.2	8.1
100.0	1.3	1.3	8.1
150.0	1.5	1.3	8.1
200.0	1.6	1.5	8.2
250.0	1.9	1.6	8.2
300.0	2.2	1.9	8.2
350.0	2.7	2.2	8.1
400.0	3.2	2.6	8.2

Linear S-Parameters

Frequency MHz	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
10.0	.145	149	2.468	10	.280	10	.152	150
20.0	.115	161	2.502	3	.282	3	.115	158
50.0	.109	-178	2.531	-6	.285	-6	.095	178
100.0	.138	-161	2.535	-16	.283	-16	.111	-164
150.0	.187	-157	2.538	-26	.277	-24	.145	-158
200.0	.242	-162	2.566	-35	.271	-33	.190	-160
250.0	.305	-170	2.557	-45	.260	-43	.242	-166
300.0	.381	179	2.583	-55	.251	-52	.304	-174
350.0	.455	167	2.551	-66	.232	-63	.371	176
400.0	.527	154	2.571	-77	.216	-73	.440	165

Thermal Data: V_{CC} = 15 Vdc

Thermal Resistance θ_{jc} 130°C/W

Transistor Power Dissipation P_d 0.336 W

Junction Temperature Rise Above Case T_{jc} 44°C