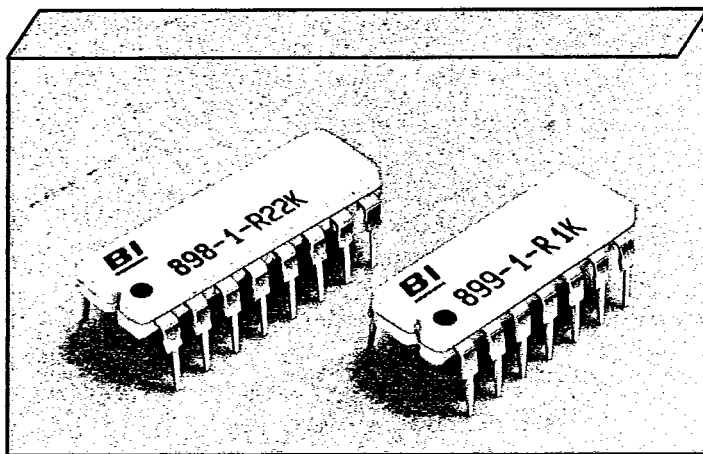


Model 898, 899

Dual In-Line

Thick Film Resistor Network



Electrical

Standard Resistance Range, Ohms	22 to 1Meg
Standard Resistance Tolerance, at 25°C	-1, -3 Circuits $\pm 2\%$ (<100 Ohms = ± 2 Ohms) - 5 Circuit $\pm 5\%$
Operating Temperature Range, °C	-55° to 125°
Temperature Coefficient of Resistance, ppm/°C ± 100 (<100 Ohms = ± 250)	
Temperature Coefficient of Resistance Tracking, ppm/°C	50
Maximum Operating Voltage, Vdc	100V or $\sqrt{PR}$
Insulation Resistance, Ohms Minimum	10,000 Meg

Mechanical

Lead Material	Copper Alloy, 60/40 Tin-Lead Plating
Substrate Material	Alumina
Resistor Material	Cermet

Environmental (Per MIL-R-83401)

Thermal Shock Plus Power Conditioning	(ΔR) $\pm 0.70\%$
Short Time Overload	(ΔR) $\pm 0.50\%$
Terminal Strength	(ΔR) $\pm 0.25\%$
Moisture Resistance	(ΔR) $\pm 0.50\%$
Mechanical Shock	(ΔR) $\pm 0.25\%$
Vibration Shock	(ΔR) $\pm 0.25\%$
Low Temperature Storage	(ΔR) $\pm 0.25\%$
High Temperature Exposure	(ΔR) $\pm 0.50\%$
Load Life, 1000 Hours	(ΔR) $\pm 1.00\%$
Resistance to Soldering Heat (Per MIL-STD-202, Method 210, Cond. B)	(ΔR) $\pm 0.25\%$
Dielectric Withstanding Voltage, RMS	200V for 1 Minute
Marking Permanency	per Paragraph 4.6.7
Lead Solderability	per Paragraph 4.6.6
Flammability	UL-94V-0 Rated
Storage	-55°C to 125°C

Specifications subject to change without notice.

Standard Resistance Values, Ohms

-3 Circuit, Isolated Resistors and -1 Circuit, Bussed Resistors

22	390	5.6K	100K
27	470	6.8K	120K
33	510	8.2K	150K
39	560	10K	180K
47	680	12K	200K
51	820	15K	220K
56	1K	18K	270K
68	1.2K	20K	330K
82	1.5K	22K	390K
100	1.8K	27K	470K
120	2K	33K	510K
150	2.2K	39K	560K
180	2.7K	47K	680K
200	3.3K	51K	820K
220	3.9K	56K	1Meg
270	4.7K	68K	
330	5.1K	82K	

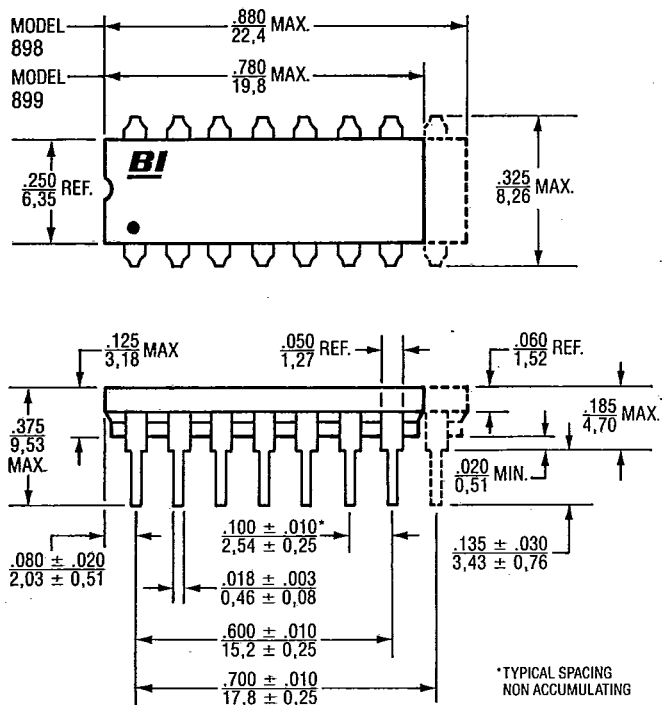
-5 Circuit, Dual Terminators

R1/R2	R1/R2
180/390	330/470
220/270	330/680
220/330	3K/6.2K
330/390	

Applicable Documents

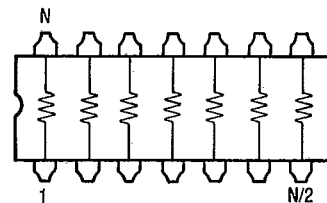
MIL-R-83401	— Resistor Networks, Fixed, Film, General Specification
MIL-STD-105	— Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-202	— Test Methods for Electronics and Electrical Component Parts

Outline dimensions inches mm

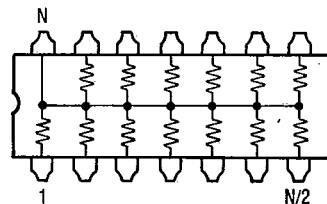


Schematics

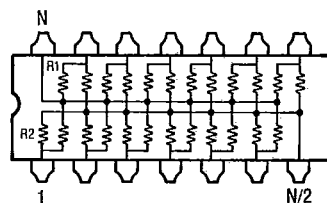
-3 Circuit,
Isolated
Resistors



-1 Circuit,
Bussed
Resistors



-5 Circuit,
Dual
Terminator

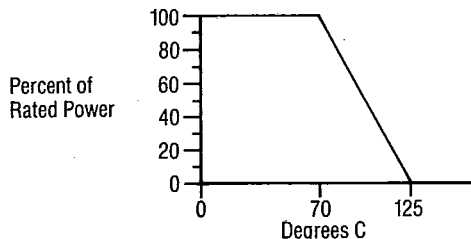


899: N = 14 Leads

898: N = 16 Leads

Consult factory for custom circuit configurations.

Power Derating Curve



Ordering Information

Model Series **89 9 -3- R220 / R330 F**

Number of Leads
9 = 14 Leads
8 = 16 Leads

Circuit Type
3 = Isolated
1 = Bussed
5 = Dual Terminator

Resistance Value

Tolerance Code
(If other than standard)
F = $\pm 1\%$
G = $\pm 2\%$
J = $\pm 5\%$

R2 Resistance Value
Add for -5 circuit only

Power (Watts) Dissipation @ 70°C

Model	Package	Resistor (Per Circuit)		
		-1	-3	-5
898	2.0	.125	.250	.125
899	1.8	.125	.250	.125

Packaging

Standard: Magazine

All units oriented with lead #1 to the same side.

Magazine: Material = Anti-Static Plastic
Capacity, Units = 25

Typical Part Marking

Beckman Industrial Logo

Lead #1 Indicator

Package Code - # of Leads
899 = 9 = 14 Leads
898 = 8 = 16 Leads

Resistance Value

Circuit Type (-1 Bussed)
(-3 Isolated)
(-5 Dual Terminator)

Date Code
Optional Locations

WORLDWIDE HEADQUARTERS
Beckman Industrial Corp.
Subsidiary of Emerson Electric Co.
4141 Palm Street
Fullerton, CA 92635-1025
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Telex: 7607569

EUROPEAN HEADQUARTERS
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Telex: 72135

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Koto-Ku, Tokyo, Japan
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Telex: J25555