

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 | |

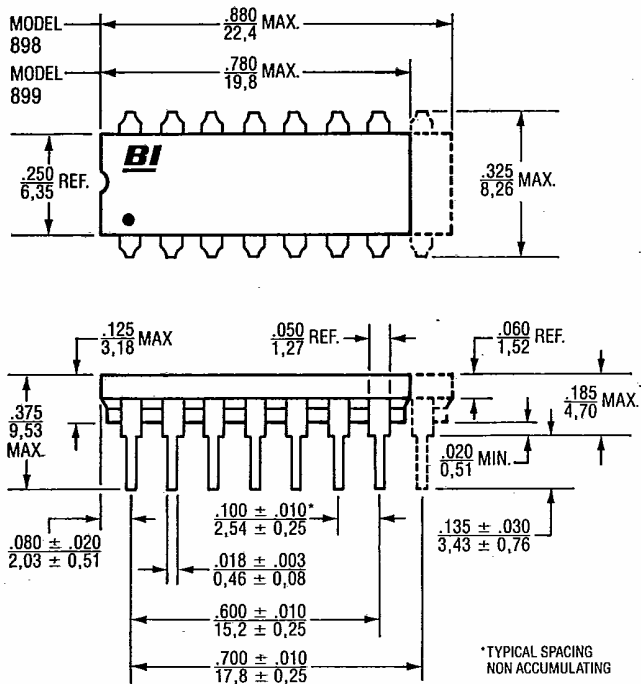
Applicable Documents

| |
|---|
| 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 |

Beckman Industrial

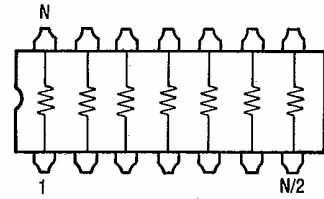
Networks

Outline dimensions inches mm

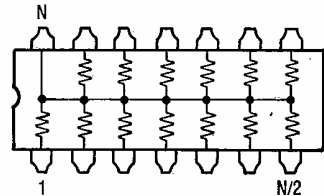


Schematics

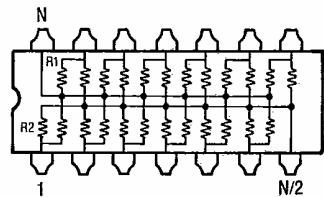
-3 Circuit,
Isolated
Resistors



-1 Circuit,
Bussed
Resistors



-5 Circuit,
Dual
Terminator

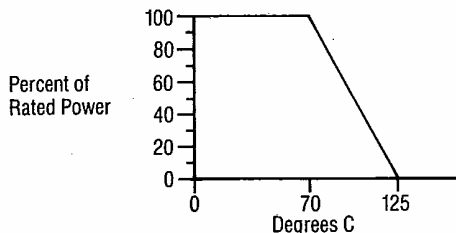


899: N = 14 Leads

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: R2 Resistance Value Add for -5 circuit only

Tolerance Code (If other than standard): F = ±1%, G = ±2%, J = ±5%

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: BI

Lead #1 Indicator: 898-3-R10K

Resistance Value: 8423

Date Code: 8423

Optional Locations: 8423

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

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

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