

## Features

- Over-voltage/lightning protection to Bellcore GR-1089 & ITU-T K.20
- Standard “off the shelf” designs
- Typical application is secondary protection on telecom line cards

- Custom versions available, including SMD solutions and fuse technology (contact factory)

## 4B04B - Thick Film Surge Resistor Networks

### 4B04B-501 (Pair of Matched Resistors)

#### Product Characteristics

Resistance Values .....	20Ω - 100Ω
Resistance Tolerance .....	±1%
TCR.....	100ppm/°C
Ratio Tolerance.....	>34Ω.....±0.5%
	<34Ω.....±1%
Power Dissipation (per resistor) @ 25°C .....	.2W
Temperature Range .....	-55°C to +125°C

#### Environmental Characteristics

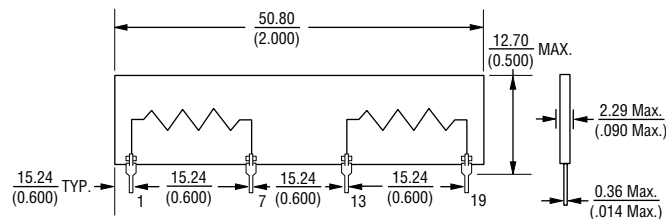
TESTS PER MIL-STD-202 .....	ΔR MAX.
Resistance to Solvents .....	No Marking Deterioration
Resistance to Solder Heat.....	±0.5% or 0.5Ω, whichever is greater
Solderability .....	>95% Coverage
Insulation Resistance .....	10 MΩ min. (isolated pins)
Bias Humidity Test .....	50V/85% RH/85°C

#### Functional Characteristics

Lightning Surge Test	
Bellcore Spec GR-1089	10 x 1000 μsec .....1 kV
	2 x 10 μsec .....2.5 kV
ITU-T K.20	10 x 700 μsec .....2 kV
Power Cross Test .....	Per Bellcore spec.
	(Vrms applied vary with resistance values)

#### Physical Characteristics

Body Style .....	Open Frame SIP
Body Material.....	96% Alumina
Lead Frame Material.....	Copper, solder coated
Standard Parts Available Off the Shelf .....	50Ω, 100Ω



#### How To Order

**4B 04 B - 50X - XXX**

Model _____	(4B = Open Frame)
Number of Pins _____	
Physical Configuration _____	
Electrical Configuration _____	• 501 = Pair of Matched Resistors
Resistance Code _____	• First 2 digits are significant
	• Third digit represents the number of zeros to follow

### 4B04B-502 (Resistor with Thermal Fuse)

#### Product Characteristics

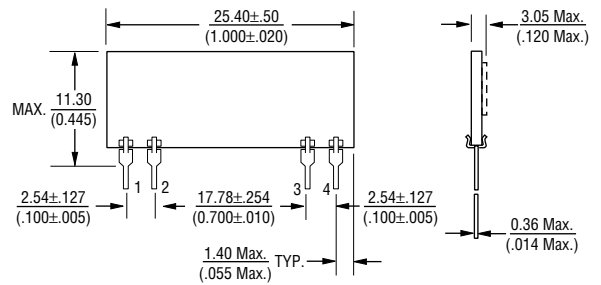
Resistance Values .....	5.6Ω - 100Ω
Resistance Tolerance.....	1% (optional), 5% (standard)
TCR.....	800 ±200ppm/°C
Power Dissipation @ 25°C.....	.2W
Temperature Range.....	-55°C to +125°C

#### Functional Characteristics

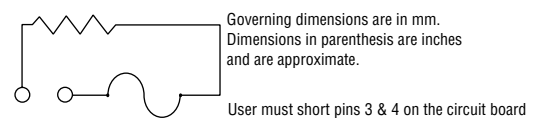
Lightning Surge Test	
Bellcore Spec GR-1089	10 x 1000 μsec .....1 kV
	2 x 10 μsec .....2.5 kV
Power Cross Test .....	Per Bellcore spec.
	(Vrms applied vary with resistance values)

#### Physical Characteristics

Body Style.....	Open Frame SIP
Body Material.....	96% Alumina
Lead Frame Material .....	Copper, solder coated
Standard Parts Available Off the Shelf .....	5.6Ω, 10Ω, 34Ω



#### Functional Schematic



#### How To Order

**4B 04 B - 50X - XXX J**

Model _____	(4B = Open Frame)
Number of Pins _____	
Physical Configuration _____	
Electrical Configuration _____	• 502 = Resistor with Thermal Fuse
Resistance Code _____	• First 2 digits are significant
	• Third digit represents the number of zeros to follow
5% tolerance _____	