

## Features

- Matched pair of resistors
- Power line fault/lightning protection to BELLCORE GR-1089
- Typical application is secondary protection on telecom line cards
- Bourns TISP® products are recommended for the overvoltage section of the protection circuit

# 4B04B-523-RC - Line Protection Network

## Matched Pair of Resistors

### Electrical Characteristics

Resistance Values (R1 = R2).....	15Ω - 60Ω
Resistance Tolerance	
>34Ω .....	±2%
<34Ω .....	±5%
TCR .....	100ppm/°C
Ratio Tolerance	
>34Ω .....	±0.5%
<34Ω .....	±2%
Temperature Range.....	-40°C to +85°C

### Physical Characteristics

Body Style .....	Open Frame SIP
Substrate Material .....	96% Alumina
Lead Frame Material.....	Copper, solder coated
Flammability .....	Conforms to UL94V-0

### Functional Characteristics (per Bellcore GR-1089)

#### First Level Lightning Surge -

Resistors will remain within tolerance after testing.

1000 Volts Peak, 100 Amp Peak Current,  
 Max. Rise/Min. Decay Time 10x1000µs,  
 Number of Pulses .....25 each resistor each polarity  
 25 simultaneous each polarity

2500 Volts Peak, 500 Amp Peak Current,  
 Max. Rise/Min. Decay Time 2x10µs,  
 Number of Pulses .....10 simultaneous each polarity

#### First Level AC Power Fault -

Resistors will remain within tolerance after testing.

50 Vrms, .33 Amp Short Circuit Current,  
 Duration.....15 minutes

100 Vrms, .17 Amp Short Circuit Current,  
 Duration.....15 minutes

600 Vrms, 1.0 Amp Short Circuit Current,  
 Duration .....60 One-second pulses

#### Second Level Lightning Surge -

Resistor package must fail safely causing no fire, electrical, or fragmentation hazard.

5000 Volts Peak, 500 Amp Peak Current,  
 Max. Rise/Min. Decay Time 2x10µs,  
 Number of Pulses .....1 simultaneous each polarity

#### Second Level AC Power Fault -

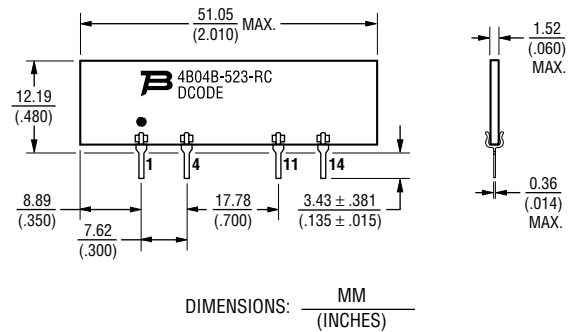
Resistor package must fail safely causing no fire, electrical, or fragmentation hazard.

### Standard Resistance Values

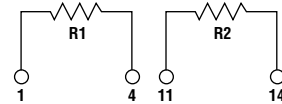
Resistance (ohms)	Resistance Code
20	200
40	400
50	500

Specifications are subject to change without notice.

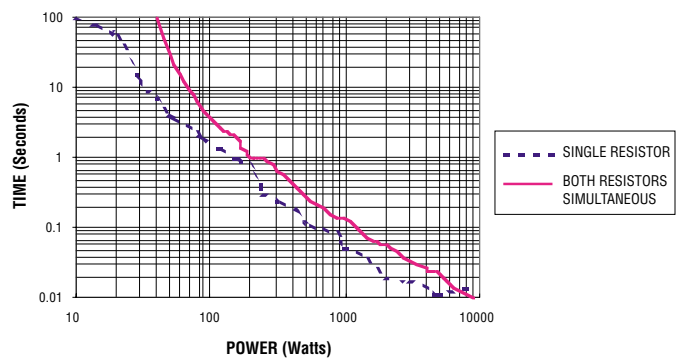
## Product Dimensions



## Electrical Schematic



## Break Open Time



## How To Order

**4B 04 B - 523 - RC**

Model \_\_\_\_\_  
 (4B = Open Frame)

Number of Pins \_\_\_\_\_

Physical Configuration \_\_\_\_\_

Electrical Configuration \_\_\_\_\_  
 • 523 = Matched Pair of Resistors

Resistance Code \_\_\_\_\_  
 • First 2 digits are significant  
 • Third digit represents the number of zeros to follow