

Features

- RoHS compliant* versions available
- 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 Module

Matched Pair of Resistors

Electrical Characteristics

Resistance Values (R1 = R2)	15 ohms- 60 ohms
Resistance Tolerance	
>34Ω	±2 %
<34Ω	±5 %
TCR	100 ppm/°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 10x1000 μs,
Number of Pulses25 each resistor each polarity
25 simultaneous each polarity

2500 Volts Peak, 500 Amp Peak Current,
Max. Rise/Min. Decay Time 2x10 μs,
Number of Pulses10 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,
Duration60 One-second pulses

Second Level Lightning Surge -
Resistor package must fail safely causing no fire, electrical, or fragmentation hazard.

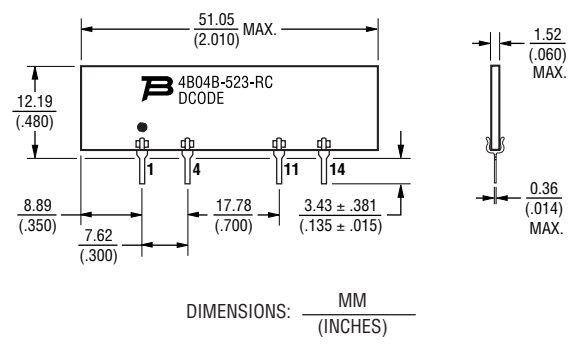
5000 Volts Peak, 500 Amp Peak Current,
Max. Rise/Min. Decay Time 2x10 μs,
Number of Pulses1 simultaneous each polarity

Second Level AC Power Fault -
Resistor package must fail safely causing no fire, electrical, or fragmentation hazard.

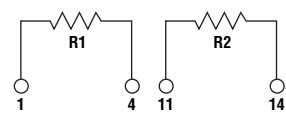
Standard Resistance Values

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

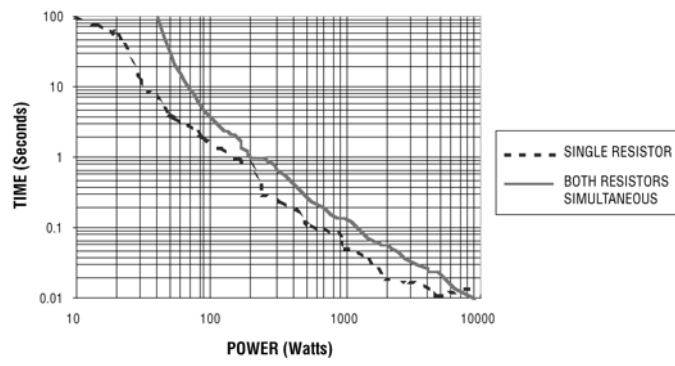
Product Dimensions



Electrical Schematic



Break Open Time



How To Order

4B 04 B - 523 - RC LF

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

RoHS Compliant Option _____
Blank = Standard Product
LF =RoHS Compliant Product

*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.