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

BOURNS®

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 framentation hazard.

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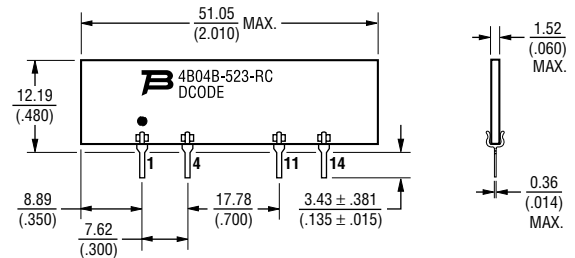Number of Pulses ....1 simultaneous each polarity

Second Level AC Power Fault -
Resistor package must fail safely causing no fire,
electrical, or framentation hazard.
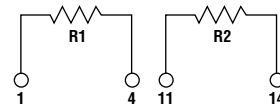
Standard Resistance Values

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

Specifications are subject to change without notice.

Product Dimensions

51.05 (2.010) MAX.
12.19 (.480)
8.89 (.350)
7.62 (.300)
17.78 (.700)
3.43 ± .381 (.135 ± .015)
1.52 (.060) MAX.
0.36 (.014) MAX.

4B04B-523-RC DCODE

1 4 11 14

DIMENSIONS: MM / (INCHES)

Electrical Schematic

R1   R2

1   4   11   14

Break Open Time

TIME (Seconds) vs POWER (Watts)

- - - SINGLE RESISTOR
—— BOTH RESISTORS SIMULTANEOUS
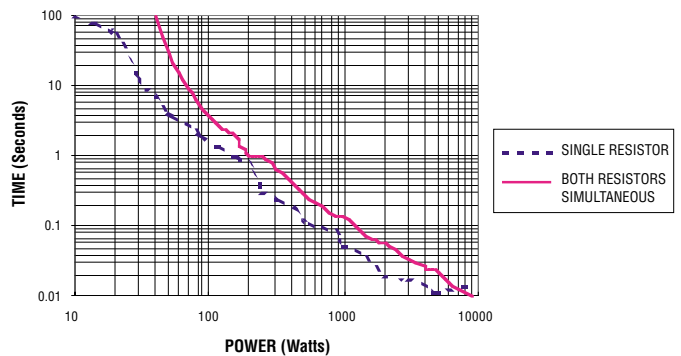
How To Order

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