

## Features

- Overcurrent/lightning protection to BELLCORE GR-1089
- Typical application is secondary protection on telecom line cards
- UL497A recognition
- Thermal fuse links

# 4A12P-516-500 - Surge Line Protection Module

### Electrical Characteristics

Resistance Value.....	50 Ω
Resistance Tolerance.....	±1 %
TCR.....	100 ppm/°C
Ratio Tolerance.....	±0.5 %
Temperature Range.....	-40 °C to +85 °C

### Physical Characteristics

Body Style.....	Dual In Line SMD - Twin Pack
Substrate Material.....	96 % Alumina
Lead Frame Material.....	Copper, solder coated
Flammability.....	Conforms to UL94V-0
Processability.....	Unit is only suitable for no-clean processing
Convection Reflow.....	Unit will withstand 260 °, 20 seconds
Packaging.....	16 " diameter reels, 44 mm tape, 250 pcs./reel

### Functional Characteristics (per Belcore 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,  
60 Seconds Between Pulses:  
Number of Pulses .....25 each resistor each polarity

2500 Volts Peak, 500 Amp Peak Current,  
Max. Rise/Min. Decay Time 2x10 μs,  
60 Seconds Between Pulses:  
Number of Pulses .....10 simultaneous each polarity

#### First Level AC Power Fault -

Resistors will remain within tolerance after testing.

50 Vrms, 0.33 Amp Short Circuit Current:  
Duration.....15 minutes

100 Vrms, 0.17 Amp Short Circuit Current:  
Duration.....15 minutes

600 Vrms, 1.00 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 2x10 μs:  
Number of Pulses .....1 simultaneous each polarity

#### Second Level AC Power Fault -

Resistor package must fail safely causing no fire, electrical, or fragmentation hazard. Device will fail prior to Bussman MDQ 1-6/10 A fuse in series.

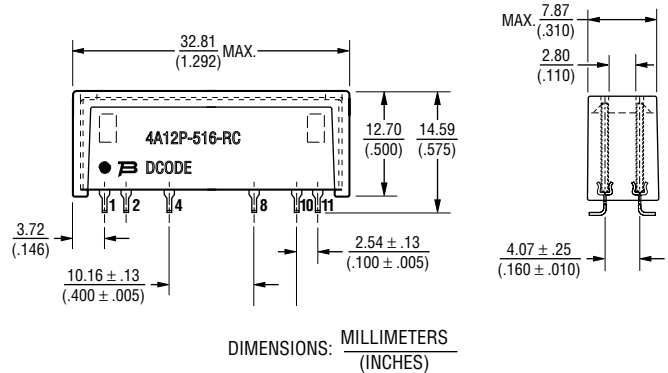
100 Vrms, 2.2 Amp Short Circuit Current:  
Duration.....15 minutes

600 Vrms, 7 Amp Short Circuit Current:  
Duration.....5 seconds

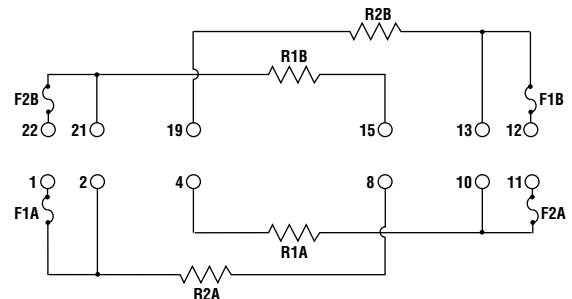
250 Vrms, 25 Amp Short Circuit Current:  
Duration.....15 minutes

600 Vrms, 60 Amp Short Circuit Current:  
Duration.....5 seconds

### Product Dimensions



### Electrical Schematic



### How To Order

Model	4A 12 P - 516 - 500
(4A = Surface Mount)	
Number of Pins	12
Physical Configuration	P
Electrical Configuration	516 = Matched pair of resistors plus thermal fuse
Resistance Code	500 = 50 Ω



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