

### RoHS 316 Series PICO® II, Very Fast-Acting Fuse



#### Description

The 316 Series PICO® II Very Fast-Acting Fuse is designed to meet an extensive array of performance characteristics in a space-saving subminiature package while complying with the requirements of CCC.

#### Features

- CCC certified Axial Lead and Cartridge Fuse
- Fully compatible with Lead-free solder alloys and higher temperature profiles associated with Lead-free assembly
- RoHS compliant
- Available in ratings of 0.50A, 1.00A, 2.00A, 3.15A and 5.00 amperes

#### Applications

Secondary protection for space constrained applications

- Flat-panel Display TV
- LCD monitor
- LCD backlight inverter
- Office machines
- Power supply
- Audio/Video system
- Lighting system
- Medical equipment

#### Agency Approvals

| Agency                                                                            | Agency File Number | Ampere Range |
|-----------------------------------------------------------------------------------|--------------------|--------------|
|  | 2007010207241295   | 0.50mA–5A    |

#### Electrical Characteristics

| % of Ampere Rating | Opening Time               |
|--------------------|----------------------------|
| 100%               | 4 Hours, <b>Min.</b>       |
| 200%               | 5 Seconds, <b>Max.</b>     |
| 275%               | 0.30 Seconds, <b>Max.</b>  |
| 400%               | 0.03 Seconds, <b>Max.</b>  |
| 1000%              | 0.004 Seconds, <b>Max.</b> |

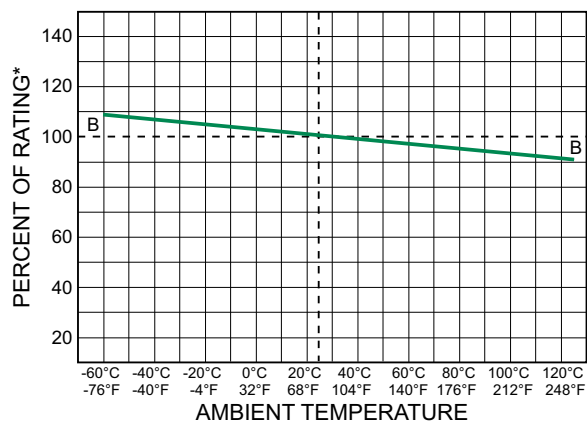
#### Electrical Characteristics

| Ampere Rating (A) | Amp Code | Max Voltage Rating (V) | Interrupting Rating          | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) | Max Voltage Drop (mV) | Agency Approvals  |
|-------------------|----------|------------------------|------------------------------|--------------------------------|-------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------|
| 0.50              | .500     | 125                    | 50A @ 125VAC<br>50A @ 125VDC | 0.280                          | 0.0598                                                | 0.202                 | X                                                                                                      |
| 1.00              | 001.     | 125                    |                              | 0.128                          | 0.256                                                 | 0.186                 | X                                                                                                      |
| 2.00              | 002.     | 125                    |                              | 0.0473                         | 0.405                                                 | 0.158                 | X                                                                                                      |
| 3.15              | 3.15     | 125                    |                              | 0.0290                         | 1.190                                                 | 0.160                 | X                                                                                                      |
| 5.00              | 005.     | 125                    |                              | 0.0155                         | 4.140                                                 | 0.110                 | X                                                                                                      |

Notes:

1. Cold resistance measured at less than 10% of rated current at 23°C.
2. Agency Approval Table Key: X=Approved or Certified, P=Pending and Blank=Not Approved
3. Have special electrical characteristic needs? Contact Littelfuse to learn more about application specific options.

### Temperature Derating Curve



Note:

- Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

### Soldering Parameters

#### Recommended Process Parameters:

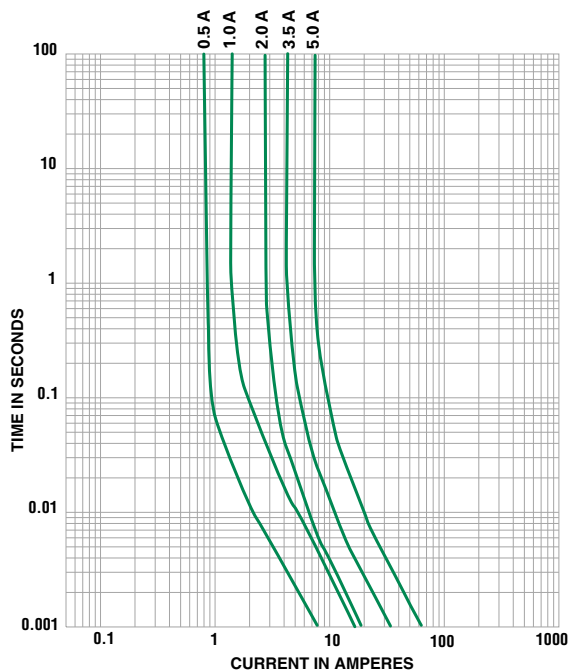
| Wave Parameter                                              | Lead-Free Recommendation          |
|-------------------------------------------------------------|-----------------------------------|
| <b>Preheat:</b><br>(Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum:                                        | 100° C                            |
| Temperature Maximum:                                        | 150° C                            |
| Preheat Time:                                               | 60-180 seconds                    |
| <b>Solder Pot Temperature:</b>                              | 260° C Maximum                    |
| <b>Solder Dwell Time:</b>                                   | 10 Seconds, Maximum               |

#### Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350° C +/- 5° C  
 Heating Time: 5 seconds max.

**Note: These devices are not recommended for IR or Convection Reflow process.**

### Average Time Current Curves

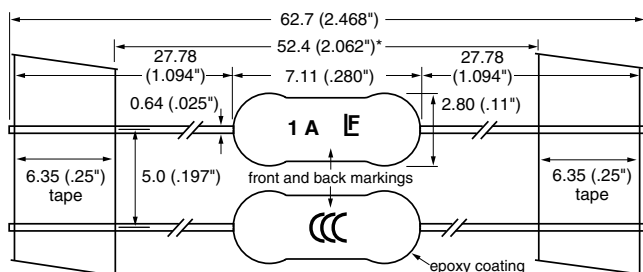


## Product Characteristics

|                        |                                                                                    |
|------------------------|------------------------------------------------------------------------------------|
| <b>Materials</b>       | Body: Ceramic<br>Leads: Tin-coated Copper<br>Encapsulated: Epoxy-Coated body       |
| <b>Product Marking</b> | Body: Brand Logo, Current Rating<br>Certification mark                             |
| <b>Lead Pull Force</b> | MIL-STD-202, Method 211, Test Condition A (will withstand a 7lbs. axial pull test) |
| <b>Solderability</b>   | MIL-STD-202, Method 208                                                            |

|                              |                                                                         |
|------------------------------|-------------------------------------------------------------------------|
| <b>Operating Temperature</b> | –55°C to +125°C with proper de-rating                                   |
| <b>Shock</b>                 | MIL-STD-202, Method 213, Test Condition 1 (100G's peak for millisecond) |
| <b>Vibration</b>             | MIL-STD-202F, Method 201A (10-55 Hz); Method 204, Test Condition C      |
| <b>Moisture Resistance</b>   | MIL-STD-202, Method 106                                                 |

## Dimensions



## Part Numbering System

|                          |             |
|--------------------------|-------------|
| <b>Series</b>            | <b>0316</b> |
| <b>Current Rating</b>    | <b>001.</b> |
| <b>Quantity Code</b>     | <b>N</b>    |
| <b>Type of Packaging</b> | <b>R</b>    |
| <b>Lead Length</b>       | <b>T1</b>   |

Refer to **Amp Code** column of Electrical Characteristics Table

N = 5000

R = Reel  
A = Ammo Pack

T1: 52.4mm (2.062")\*

## Packaging

| Packaging Option                                                 | Packaging Specification | Quantity | Quantity & Packaging Code                              |
|------------------------------------------------------------------|-------------------------|----------|--------------------------------------------------------|
| *T1: 52.4mm (2.062")<br>Axial Lead<br>Tape and Reel or Ammo Pack | EIA 296                 | 5000     | NAT1 = 5000 Ammo Pack T1<br>NRT1 = 5000 Tape & Reel T1 |

Notes: \* T1 dimension is defined as the length of the component between the two tapes. The full component length is 62.7mm (2.468").