

### 459 Series PICO® Very Fast-Acting Surface Mount Fuse



#### Description

The 459 Series Very Fast-Acting SMF Fuse is based on Littelfuse PICO® fuse technology, though offered in a surface mount package.

This series of devices meets the requirements of the RoHS directive.

#### Features

- Very Fast-Acting
- Wide current rating range: 62mA to 5A
- Wide operating temperature range
- Low temperature re-rating
- RoHS compliant

#### Applications

- Wireless basestation
- Network equipment
- Telecom equipment

#### Additional Information



Datasheet



Resources



Samples

#### Agency Approvals

| AGENCY | AGENCY FILE NUMBER | AMPERE RANGE |
|--------|--------------------|--------------|
|        | E10480             | 0.062 - 5A   |
|        | 29862              | 0.125 - 5A   |
|        | NBK030205-E10480B  | 1A - 5A      |

#### Electrical Characteristics for Series

| % of Ampere Rating | Opening Time        |
|--------------------|---------------------|
| 100%               | 4 hours, Minimum    |
| 200%               | 1 second, Maximum   |
| 300%               | 0.1 second, Maximum |

#### Electrical Specifications by Item

| 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) | Agency Approvals |   |   |
|-------------------|----------|------------------------|---------------------------------|--------------------------------|---|------------------|---|---|
|                   |          |                        |                                 |                                |   |                  |   |   |
| 0.062             | .062     | 125                    | 50 A @125 VAC<br>300 A @125 VDC | 7.0000                         | 0.000075  | x                |   |   |
| 0.125             | .125     | 125                    |                                 | 1.7000                         | 0.00163   | x                | x |   |
| 0.250             | .250     | 125                    |                                 | 0.6650                         | 0.0106  | x                | x |   |
| 0.375             | .375     | 125                    |                                 | 0.3950                         | 0.0254  | x                | x |   |
| 0.500             | .500     | 125                    |                                 | 0.3020                         | 0.0546  | x                | x |   |
| 0.750             | .750     | 125                    |                                 | 0.1750                         | 0.155   | x                | x |   |
| 1.00              | 001.     | 125                    |                                 | 0.1280                         | 0.281   | x                | x | x |
| 1.50              | 01.5     | 125                    |                                 | 0.0816                         | 0.650   | x                | x | x |
| 2.00              | 002.     | 125                    |                                 | 0.0468                         | 0.421   | x                | x | x |
| 2.50              | 02.5     | 125                    |                                 | 0.0350                         | 0.721   | x                | x | x |
| 3.00              | 003.     | 125                    |                                 | 0.0290                         | 1.23  | x                | x | x |
| 3.50              | 03.5     | 125                    |                                 | 0.0233                         | 1.65  | x                | x | x |
| 4.00              | 004.     | 125                    |                                 | 0.0197                         | 2.35  | x                | x | x |
| 5.00              | 005.     | 125                    |                                 | 0.0151                         | 3.90  | x                | x | x |

**Temperature Re-rating Curve**



Note:  
1. Re-rating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

**Soldering Parameters**

|                  |                        |
|------------------|------------------------|
| Wave Soldering   | 260°C, 10 seconds max. |
| Reflow Soldering | 260°C, 30 seconds max. |

**Product Characteristics**

|  |   |
|--|---|
| <b>Materials</b>                             | <b>Body:</b> Molded Thermoplastic<br><b>Terminations:</b> 100% Tin-plated Copper                      |
| <b>Solderability</b>                         | MIL-STD-202, Method 208   |
| <b>Product Marking</b>                       | <b>Body:</b> Brand Logo, Current Rating, Voltage Rating, Series Code, Date Code, Agency Approved Logo |
| <b>Moisture Sensitivity</b>                  | Level 1 J-STD - 020   |
| <b>Operating Temp.</b>                       | -55°C to 125°C (Consider re-rating)   |
| <b>Shock</b>                                 | MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 msecs.)                                 |
| <b>Vibration</b>                             | MIL-STD-202, Method 201 (10-55 Hz, 0.06 inch total excursion)   |
| <b>Salt Spray</b>                            | MIL-STD-202, Method 101, Test Condition B (48 hours)  |
| <b>Insulation Resistance (After Opening)</b> | MIL-STD-202, Method 302, (10,000 ohms minimum at 100 volts)   |
| <b>Thermal Shock</b>                         | MIL-STD-202, Method 107, Test Condition B (-65 to 125°C)  |
| <b>Moisture Resistance</b>                   | MIL-STD-202, Method 106, High Humidity (90-98 RH), Heat (65°C)  |

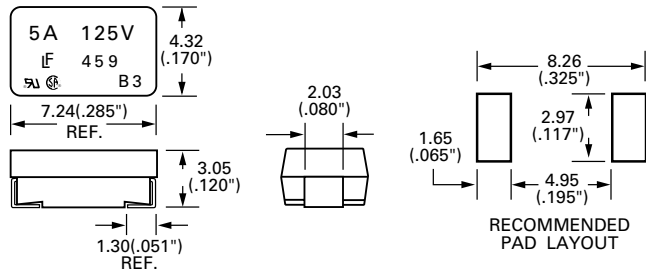
**Packaging**

| Packaging Option   | Packaging Specification        | Quantity | Quantity & Packaging Code |
|--------------------|--------------------------------|----------|---------------------------|
| 12mm Tape and Reel | EIA RS-481-1 (IEC 286, part 3) | 500      | UR                        |
|                    |                                | 2500     | ER                        |

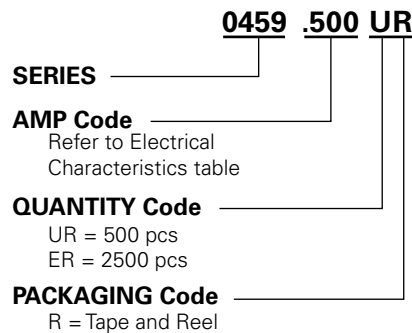
**Average Time Current Curves**



**Dimensions**



**Part Numbering System**



**Example:**  
0.62 Amp product is 0459 **.062** UR (.5 Amp product shown above).