## **ROHS** 471 Series, PICO<sup>®</sup> II, Time-lag Fuse





#### **Agency Approvals**

**Electrical Characteristics** 

📶 Littelfuse

| Agency              | Agency File Number | Ampere Range |
|---------------------|--------------------|--------------|
| <i>.</i> <b>R</b> . | E10480             | 500mA - 5A   |
| <b>()</b>           | LR 29862           | 500mA - 2.5A |
| PSE                 | JET 1896-31007     | 1A - 2.5A    |

#### Description

The 471 Series PICO<sup>®</sup> II Time-lag Fuse is designed for applications that require moderate in–rush withstand and is in a space-saving subminiature package.

#### Features

- Moderate in–rush withstand
- Small size
- Wide range of current ratings available (500mA to 5A)
- RoHS compliant
- Wide operating temperature range
- Low temperature de-rating

• Medical equipment

Industrial equipment

#### Applications

- Flat-panel display TV
- LCD monitor
- Lighting system

#### **Electrical Characteristics**

| % of Ampere<br>Rating | OpeningTime              |
|-----------------------|--------------------------|
| 100%                  | 4 Hours, <b>Min.</b>     |
| 200%                  | 120 Seconds, <b>Max.</b> |

#### Agency Approvals Max Nominal Nom Ampere Nominal Amp Voltage Interrupting Cold Voltage Melting Rating Rating R PSE Code Rating Drop Resistance (A) I<sup>2</sup>t (A<sup>2</sup> sec) (mV) (Ohms) .500 .500 125 0.159 Х Х 0.189 125 1.00 001. 0.085 0.722 Х Х Х 1.50 01.5 125 0.054 1.610 Х Х Х 2.00 002 125 0.039 2.500 Х Х Х 50 amperes at 125 VAC and VDC 02.5 125 0.030 4.390 Х Х х 2.50 3.00 003. 125 0.023 6.960 Х 4.00 004. 125 0.012 10.600 Х 5.00 005. 125 0.008 15.400 х

#### ©2008 Littelfuse, Inc. Specifications are subject to change without notice.

Specifications are subject to change without notice. Please refer to www.littelfuse.com for current information.

# **Cartridge and Axial Lead Fuses**

PICO<sup>®</sup> II > Time Lag > 471 Series



#### **Temperature Rerating Curve**

#### **Average Time Current Curves**



#### **Soldering Parameters**

#### **Recommended Process Parameters:**

| Wave Parameter                           | Lead-Free Recommendation          |  |
|--|-----------------------------------|--|
| Preheat:                                 |                                   |  |
| (Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |  |
| Temperature Minimum:                     | 100° C                            |  |
| Temperature Maximum:                     | 150° C                            |  |
| Preheat Time:                            | 60-180 seconds                    |  |
| Solder Pot Temperature:                  | 280° C Maximum                    |  |
| Solder Dwell Time:                       | 2-5 seconds                       |  |

#### **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.** 





#### **Product Characteristics**

| Materials              | Encapsulated, Epoxy-Coated Body;<br>Solder Coated Copper wire leads;<br>RoHS compliant Product: Pure Tin-coated<br>Copper wire leads |
|------------------------|--|
| Flammability<br>Rating | UL 94V-0   |
| Solderability          | MIL-STD-202, Method 208  |
| Lead Pull Force        | MIL-STD-202, Method 211, Test Condition<br>A (will withstand a 7 lbs. axial pull test)   |

| O time T                        |  |  |
|---------------------------------|--|--|
| Operating Temperature           | –55°C to +125°C  |  |
| Shock                           | MIL-STD-202, Method 213, Test<br>Condition I (100 G's peak for 6<br>milliseconds)                  |  |
| Vibration                       | MIL-STD-202, Method 201 (10–55<br>Hz); Method 204, Test Condition C<br>(55–2000 Hz at 10 G's Peak) |  |
| Moisture Resistance             | MIL-STD-202, Method 106  |  |
| Resistance to Soldering<br>Heat | Withstands 60 seconds above 200°C and up to 260°C, maximum   |  |

### Part Numbering System



#### Dimensions



### Packaging

| Packaging Option                   | Packaging Specification | Quantity &<br>Packaging Code  |
|------------------------------------|-------------------------|---|
| *T1: 52.4mm (2.062") Tape and Reel | EIA 296                 | Please refer to available quantities above in "Part Numbering System" |

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