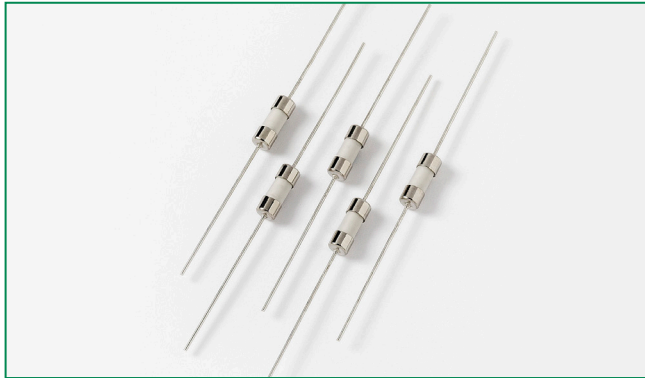






### 677 Series, 3.6x10mm, Time-Lag Fuse



#### Agency Approvals

| Agency  | Agency File Number | Ampere Range |
|---|--------------------|--------------|
|  | CQC09012032902     | 0.250 - 6.3A |
|  | 222984             | 0.250 - 6.3A |
|  | E10480             | 0.250 - 6.3A |
|  | 40006258           | 0.250 - 6.3A |

#### Additional Information



Datashheet



Resources



Samples

#### Description

The 3.6 x 10mm Time-Lag Fuse with ceramic body construction permits higher interrupting ratings and voltage ratings. Ideal for applications where high current loads are expected.

#### Features

- Available in cartridge and axial lead format and with various forming dimensions
- Halogen free, Lead-free and RoHS compliant
- Meets the requirements of IEC 60127-3, Standard Sheet 4.
- Time-Lag, ceramic body fuse in a compact package.





#### Applications

- Lighting
- Adapter applications
- Power supply

#### Electrical Characteristics for Series

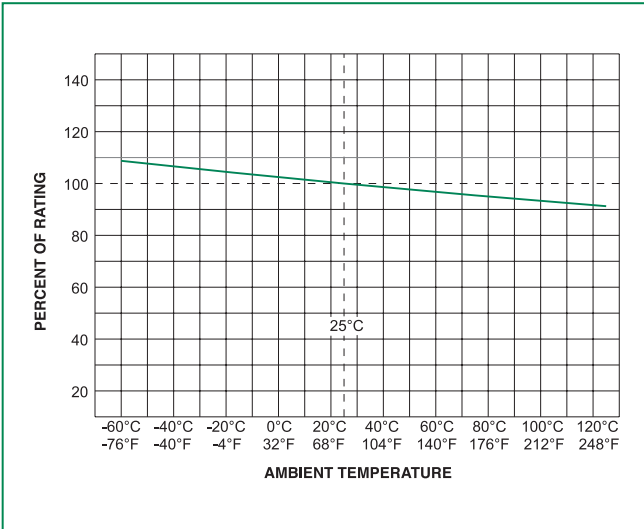
| % of Ampere Rating | Opening Time                  |
|--------------------|-------------------------------|
| 150%               | 60 minutes, Minimum           |
| 210%               | 2 minutes, Maximum            |
| 275%               | 400msec., Min.; 10 sec. Max.  |
| 400%               | 150msec., Min.; 0.3 sec. Max. |
| 1000%              | 20msec., Min.; 150msec Max.   |

#### Electrical Specification by Item

| Ampere Rating (A) | Amp Code | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) | Agency Approvals  |   |   |   |   |
|-------------------|----------|--------------------|---------------------|--------------------------------|---|---|---|---|---|---|
|                   |          |                    |                     |                                |   |  |  |  |  |   |
| .250              | .250     | 250                | 35A@250VAC          | 0.00063                        | 0.312   | x   | x   | x   | x   |   |
| .315              | .315     | 250                |                     | 0.00046                        | 0.422   | x   | x   | x   | x   |   |
| .400              | .400     | 250                |                     | 0.00036                        | 0.755   | x   | x   | x   | x   |   |
| .500              | .500     | 250                |                     | 0.00031                        | 1.32  | x   | x   | x   | x   |   |
| .630              | .630     | 250                |                     | 0.000178                       | 2.55  | x   | x   | x   | x   |   |
| .800              | .800     | 250                |                     | 0.000125                       | 3.25  | x   | x   | x   | x   |   |
| 001.              | 001.     | 250                |                     | 0.000092                       | 6.95  | x   | x   | x   | x   |   |
| 002.              | 002.     | 250                |                     | 0.000035                       | 20.8  | x   | x   | x   | x   |   |
| 004.              | 004.     | 250                |                     | 40A@250VAC                     | 0.000016  | 95  | x   | x   | x   | x |
| 005.              | 006.     | 250                |                     | 50A@250VAC                     | 0.000014  | 140   | x   | x   | x   | x |
| 01.6              | 01.6     | 250                | 35A@250VAC          | 0.000048                       | 18.2  | x   | x   | x   | x   |   |
| 02.5              | 02.5     | 250                |                     | 0.000028                       | 32.5  | x   | x   | x   | x   |   |
| 06.3              | 06.3     | 280                | 63A@250VAC          | 0.000009                       | 240   | x   | x   | x   | x   |   |
| 1.25              | 1.25     | 250                | 35A@250VAC          | 0.000065                       | 12.1  | x   | x   | x   | x   |   |
| 3.15              | 3.15     | 250                |                     | 0.00002                        | 40.8  | x   | x   | x   | x   |   |

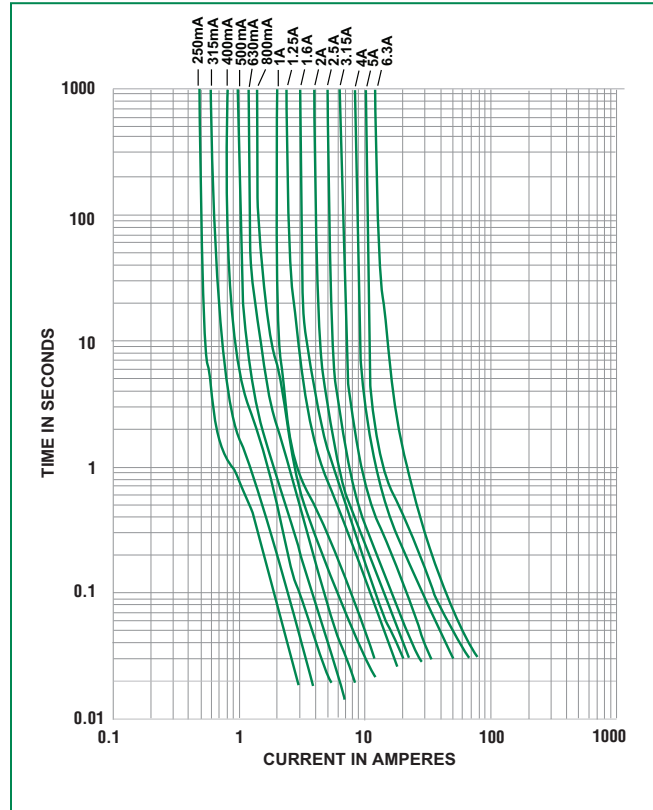
I<sup>2</sup>t test at 10x rated current

### Temperature Re-rating Curve

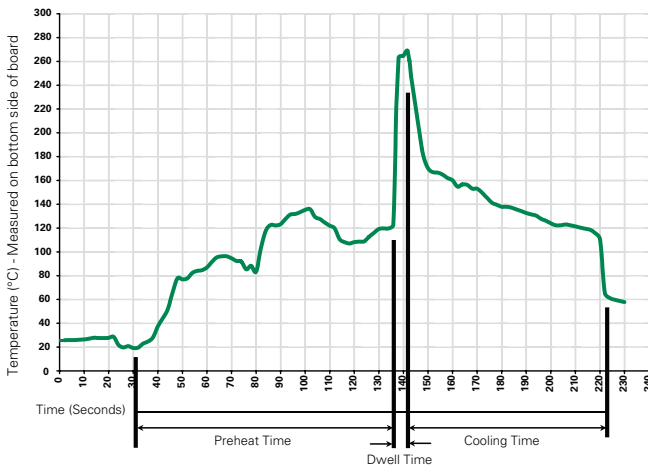


Note:  
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### 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>                                   | 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.**

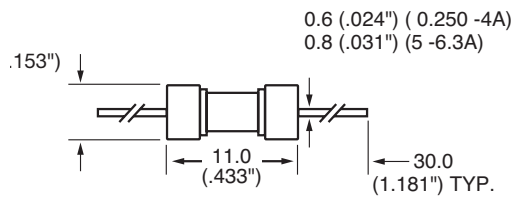
### Product Characteristics

|                          |   |
|--------------------------|---|
| <b>Materials</b>         | <b>Body:</b> Ceramic<br><b>Cap:</b> Nickel-plated Brass<br><b>Leads:</b> Tin-plated Copper            |
| <b>Terminal Strength</b> | MIL-STD-202, Method 211, Test Condition A   |
| <b>Solderability</b>     | MIL-STD-202 Method 208  |
| <b>Product Marking</b>   | <b>Cap1:</b> Brand logo, current and voltage ratings<br><b>Cap2:</b> Series and agency approval marks |

|                              |   |
|------------------------------|---|
| <b>Operating Temperature</b> | -55°C to +125°C   |
| <b>Thermal Shock</b>         | MIL-STD-202, Method 107, Test Condition B (5 cycles, -65°C to +125°C)                                   |
| <b>Vibration</b>             | MIL-STD-202, Method 201   |
| <b>Humidity</b>              | MIL-STD-202, Method 103, Test Condition A (High RH (95%) and Elevated temperature (40°C) for 240 hours) |
| <b>Salt Spray</b>            | MIL-STD-202, Method 101, Test Condition B   |

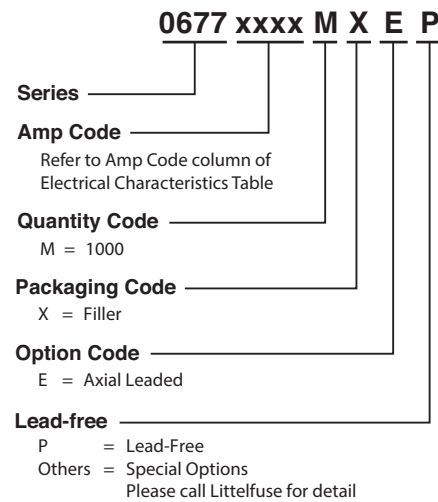
### Dimensions

Measurements displayed in millimeters (inches)



Axial Lead Material: Solder coated copper.

### Part Numbering System



### Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity and Packaging Code | Taping Width |
|------------------|-------------------------|----------|-----------------------------|--------------|
| Bulk             | N/A                     | 1000     | MXE                         | N/A          |
| Tape and Reel    | EIA-296                 | 1500     | DRT4                        | 56.5mm       |