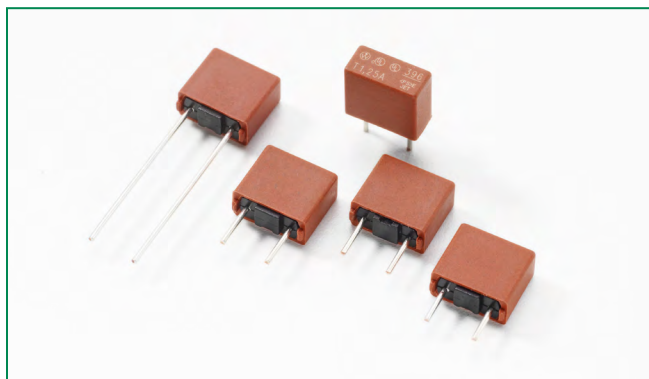


## 396 Series, TE5® Time-Lag Fuse



### Agency Approvals

| Agency                                                                            | Agency File Number | Ampere Range |
|-----------------------------------------------------------------------------------|--------------------|--------------|
|  | E67006             | 0.05A - 6.3A |
|  | E67006             | 0.05A - 6.3A |
|  | JET1896-31007-1005 | 1A - 5A      |

### Electrical Characteristics

| % of Ampere Rating | Opening Time            |
|--------------------|-------------------------|
| 200%               | 60 Seconds, <b>Max.</b> |

### Description

The 396 Series TE5® fuses are time-lag type, 125V rated, and are designed in accordance to UL 248-14.

### Features

- Halogen free, Lead-free and RoHS compliant
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Available from 0.05A to 6.3A

### Applications

- Battery chargers
- Consumer Electronics
- Power supplies
- Industrial controllers

### Additional Information



Datasheet



Resources



Samples

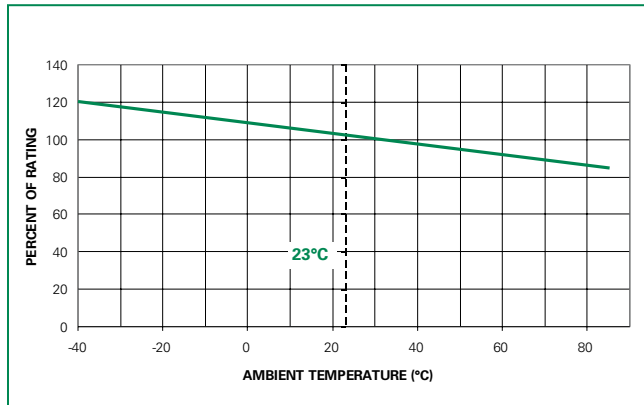
### Electrical Characteristics

| Amp Code | Rated Current | Voltage Rating | Breaking Capacity | Nominal Cold Resistance (Ohms) | Voltage Drop 1.0xI <sub>N</sub> max. (mV) | Power Dissipation 1.0xI <sub>N</sub> max. (mW) | Melting Integral 10xI <sub>N</sub> max. (A²s) | Agency Approvals                                                                      |                                                                                       |                                                                                       |
|----------|---------------|----------------|-------------------|--------------------------------|-------------------------------------------|------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|          |               |                |                   |                                |                                           |                                                |                                               |  |  |  |
| 0050     | 50mA          | 125V           | 100A@125 VAC      | 12.5000                        | 900                                       | 45                                             | 0.011                                         | x                                                                                     | x                                                                                     |                                                                                       |
| 0063     | 63mA          | 125V           |                   | 8.7900                         | 800                                       | 50                                             | 0.017                                         | x                                                                                     | x                                                                                     |                                                                                       |
| 0080     | 80mA          | 125V           |                   | 6.0090                         | 700                                       | 55                                             | 0.02                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0100     | 100mA         | 125V           |                   | 3.8400                         | 600                                       | 60                                             | 0.04                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0125     | 125mA         | 125V           |                   | 2.9000                         | 550                                       | 70                                             | 0.05                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0160     | 160mA         | 125V           |                   | 1.7700                         | 480                                       | 80                                             | 0.09                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0200     | 200mA         | 125V           |                   | 1.2000                         | 390                                       | 80                                             | 0.14                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0250     | 250mA         | 125V           |                   | 0.7500                         | 350                                       | 90                                             | 0.26                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0315     | 315mA         | 125V           |                   | 0.5450                         | 300                                       | 95                                             | 0.32                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0400     | 400mA         | 125V           |                   | 0.3750                         | 250                                       | 100                                            | 0.58                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0500     | 500mA         | 125V           |                   | 0.2470                         | 220                                       | 110                                            | 0.86                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0630     | 630mA         | 125V           |                   | 0.1850                         | 210                                       | 135                                            | 1.15                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 0800     | 800mA         | 125V           |                   | 0.1250                         | 160                                       | 130                                            | 1.92                                          | x                                                                                     | x                                                                                     |                                                                                       |
| 1100     | 1.00A         | 125V           |                   | 0.0868                         | 155                                       | 155                                            | 3.25                                          | x                                                                                     | x                                                                                     | x                                                                                     |
| 1125     | 1.25A         | 125V           |                   | 0.0666                         | 145                                       | 185                                            | 4.69                                          | x                                                                                     | x                                                                                     | x                                                                                     |
| 1160     | 1.60A         | 125V           |                   | 0.0502                         | 130                                       | 210                                            | 6.76                                          | x                                                                                     | x                                                                                     | x                                                                                     |
| 1200     | 2.00A         | 125V           |                   | 0.0398                         | 125                                       | 250                                            | 11.90                                         | x                                                                                     | x                                                                                     | x                                                                                     |
| 1250     | 2.50A         | 125V           |                   | 0.0297                         | 120                                       | 300                                            | 17.81                                         | x                                                                                     | x                                                                                     | x                                                                                     |
| 1315     | 3.15A         | 125V           |                   | 0.0216                         | 110                                       | 350                                            | 26.29                                         | x                                                                                     | x                                                                                     | x                                                                                     |
| 1400     | 4.00A         | 125V           |                   | 0.0164                         | 110                                       | 400                                            | 38.40                                         | x                                                                                     | x                                                                                     | x                                                                                     |
| 1500     | 5.00A         | 125V           |                   | 0.0112                         | 95                                        | 475                                            | 71.25                                         | x                                                                                     | x                                                                                     | x                                                                                     |
| 1630     | 6.30A         | 125V           |                   | 0.0087                         | 95                                        | 570                                            | 144.87                                        | x                                                                                     | x                                                                                     |                                                                                       |

Notes:

- 1) 1.00 means the number one with two decimal places. 1,000 means the number one thousand.
- 2) Resistance is measured at 10% of rated current, 25°C.

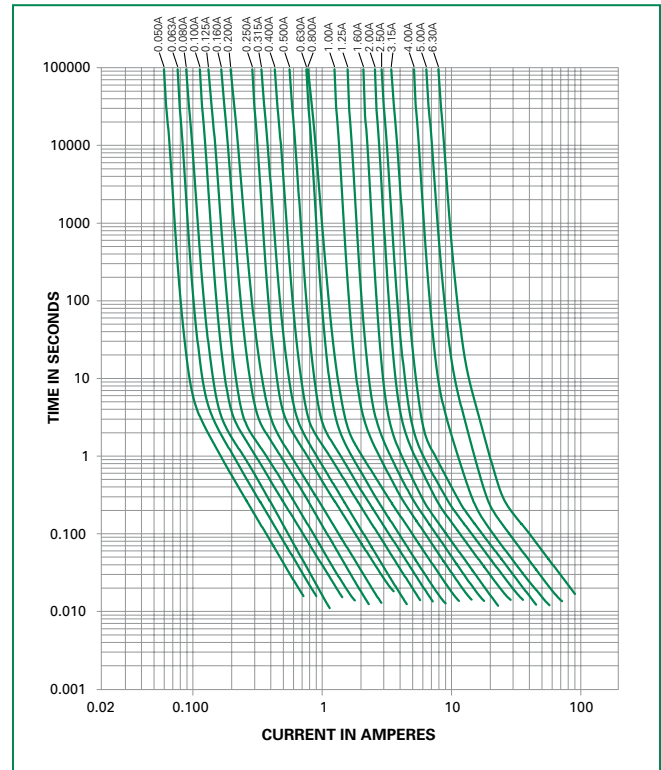
### Temperature Re-rating Curve



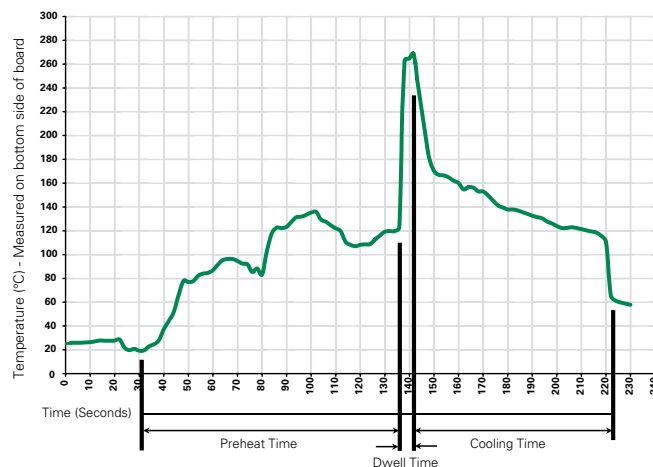
Note:

1. Derating 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.

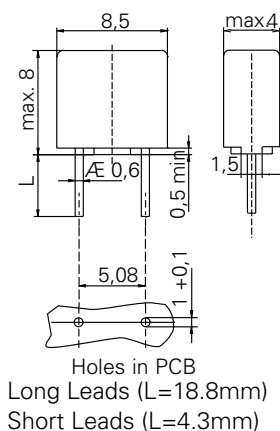
**Note:** These devices are not recommended for IR or Convection Reflow process.

### Product Characteristics

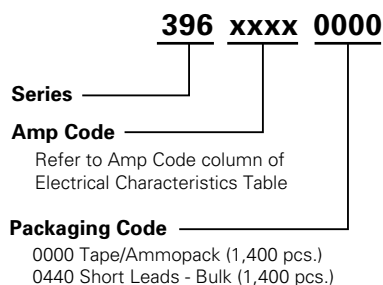
|                                  |                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------|
| <b>Materials</b>                 | Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0<br>Round Pins: Copper, Tin-plated |
| <b>Lead Pull Strength</b>        | 10 N (IEC 60068-2-21)                                                                       |
| <b>Solderability</b>             | 260°C, ≤ 3s. (Wave)<br>350°C, ≤ 1s. (Soldering Iron)                                        |
| <b>Soldering Heat Resistance</b> | 260°C, 10s. (IEC 60068-2-20)<br>350°C, 3s. (Soldering Iron)                                 |

|                              |                                                                                                                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b> | -40°C to +85°C (Consider re-rating)                                                                              |
| <b>Climatic Category</b>     | -40°C to +85°C/21 days<br>(IEC 60068-1,-2-1,-2-2,-2-78)                                                          |
| <b>Stock Conditions</b>      | +10°C to +60°C<br>RH ≤ 75% yearly average, without dew, maximum value for 30 days-95%                            |
| <b>Vibration Resistance</b>  | 24 cycles at 15 min. each<br>(IEC 60068-2-6)<br>10 - 60Hz at 0.75mm amplitude<br>60 - 2000Hz at 10g acceleration |

### Dimensions



### Part Numbering System



### Packaging

| Packaging Option  | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-------------------|-------------------------|----------|---------------------------|--------------|
| <b>396 Series</b> |                         |          |                           |              |
| Tape & Ammopack   | N/A                     | 1,400    | 0000                      | N/A          |
| Short Leads       | N/A                     | 1,400    | 0440                      | N/A          |