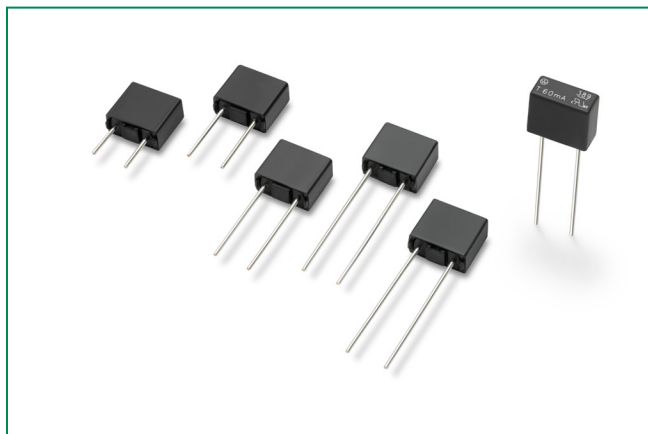


# 389 Series

## TE5® Fuse, Time-Lag



### Description

The 389 Series are TE5®, Time-Lag type, 250V rated fuses. They are specifically designed for short circuit protection of sensitive electronic components and assemblies

### Features

- Reduced PCB space requirements
- Highly defined cut-off times
- Low internal resistance
- Flame resistant encapsulated casing
- RoHS compliant and Lead-free

### Additional Information



Resources



Accessories



Samples

### Agency Approvals

| Agency | Agency File Number | Ampere Range |
|--------|--------------------|--------------|
| US     | E67006             | 0.060A       |

### Applications

- Telecom equipment
- Data processing equipment
- Input/output modules
- Household appliances
- Medical equipment

### Electrical Characteristics

| % of Ampere Rating | Opening Time         |
|--------------------|----------------------|
| 166                | 600 sec, <b>Min.</b> |
| 250                | 45 sec, <b>Max.</b>  |

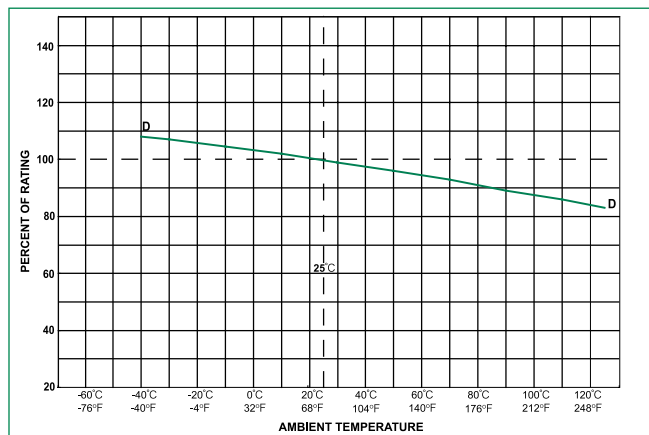
### Electrical Characteristics

| Amp Code | Rated Current | Voltage Rating | Breaking Capacity | Cold Resistance<br>0.1In (mΩ) | Power Dissipation<br>(mW) | Melting Integral<br>10In (A²s) | US     |
|----------|---------------|----------------|-------------------|-------------------------------|---------------------------|--------------------------------|--------|
| 0060     | 60mA          | 250 VAC        | 10A@250VAC        | 6080                          | 100                       | 0.033                          | E67006 |

# 389 Series

## TE5® Fuse, Time-Lag

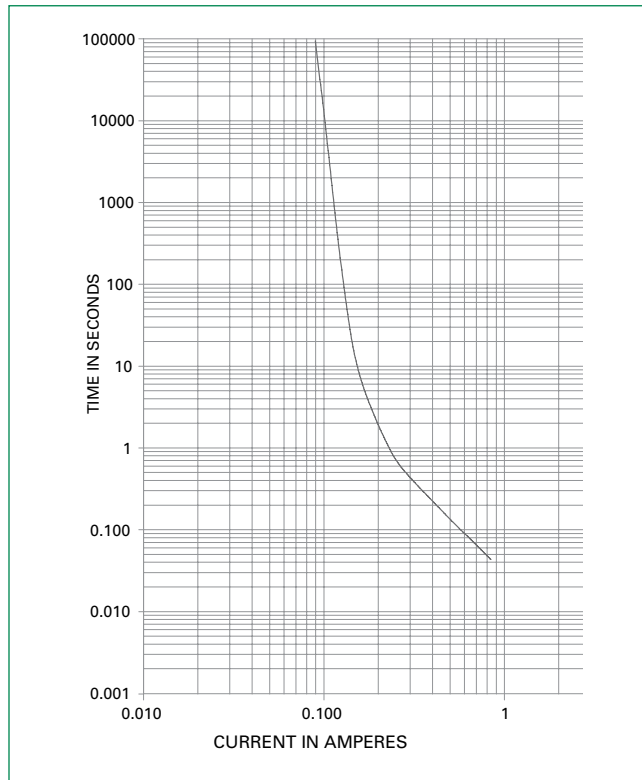
### Temperature Re-rating Curve



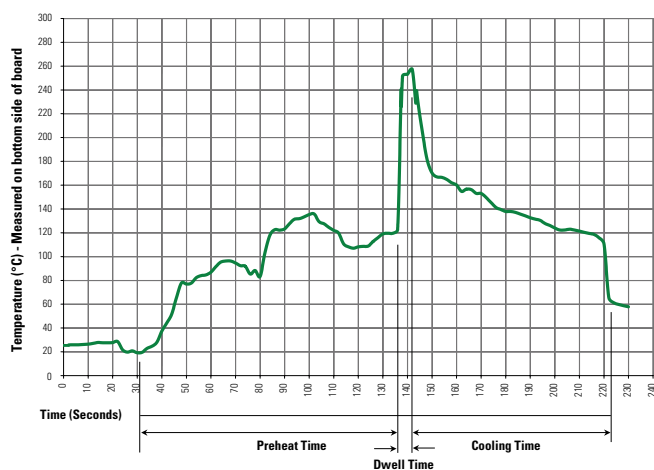
#### Note:

1. 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          |
|--|-----------------------------------|
| Preheat:<br>(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.

# 389 Series

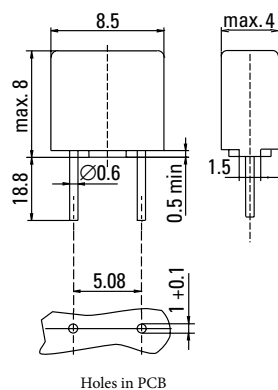
## TE5® Fuse, Time-Lag

### Product Characteristics

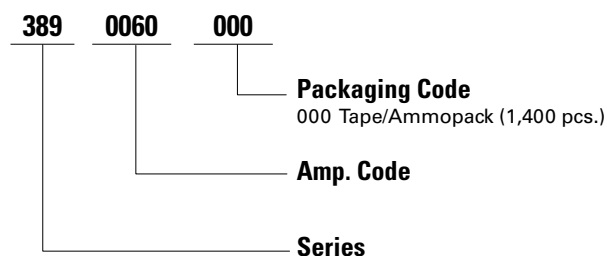
|                                  |  |
|----------------------------------|--|
| <b>Materials</b>                 | Base/Cap: Black Thermoplastic<br>Polyamide PA 66, UL 94V-0<br>Round Pins: Copper, Tin-plated |
| <b>Lead Pull Strength</b>        | 10N (IEC 60068-2-21)   |
| <b>Solderability</b>             | 260°C, ≤ 3 sec. (Wave)<br>350°C, ≤ 1 sec. (Hand)   |
| <b>Soldering Heat Resistance</b> | 260°C, 10 sec. (IEC 60068-2-20)  |

|                              |  |
|------------------------------|--|
| <b>Operating Temperature</b> | –40°C to +125°C (consider re-rating)   |
| <b>Climatic Category</b>     | –25°C/+70°C/21 days<br>(IEC 60068-1.3)   |
| <b>Stock Conditions</b>      | +10°C to +60°C RH,<br>≤ 75% yearly average, without dew,<br>maximum value for 30 days-95%                      |
| <b>Vibration Resistance</b>  | 24 cycles at 15 min. each<br>(IEC 60068-6)<br>10 - 60Hz at 0.75mm amplitude<br>60 - 2000Hz at 10g acceleration |

Dimensions (mm)



Part Numbering System



### Packaging

| Packaging Code | Packing Option | Quantity |
|----------------|----------------|----------|
| 000            | Tape/Ammopack  | 1400     |

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