

808 Series

TE5® Fast-Acting Fuse



Description

The 808 TE5® Fast-acting Fuse is designed to enable compliance with the RoHS Directive. This product is fully compatible with lead-free solder alloy and is UL Recognized for protecting components or internal circuits against overcurrent conditions at high DC voltages.

Features & Benefits

- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Low internal resistance
- Halogen-free, lead-free, and RoHS-compliant
- Shock safe casing
- Vibration resistant
- Antimony-free
- Ideal for high voltage DC applications
- Very high breaking capacity of 10kA at rated DC voltage
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to DENAN's Appendix 3

Additional Information



Resources



Accessories



Samples

Applications

- DC/DC Converter
- Transformer-less AC/DC Circuit
- Data Centers
- Telecom/Datacom Central Offices

Agency Approvals

| Agency | Agency File Number | Ampere Range |
|--------|--------------------|---------------|
| | NBK240118-E67006 | 2.00A - 5.00A |
| | E67006 | 2.00A - 5.00A |
| | NA | 2.00A - 5.00A |
| | NA | 2.00A - 5.00A |

Electrical Characteristics

| % of Ampere Rating | Opening Time |
|--------------------|---------------------|
| 100% | 4 Hours, Minimum |
| 200% | 10 Seconds, Maximum |

Electrical Characteristics

| Ampere Rating (A) | Amp Code | Max Voltage Rating (V) | | Interrupting Rating ¹ | Nominal Cold Resistance ² (Ohms) | Nominal Melting I ² t 10xI _N (A ² sec) | Max Voltage Drop 1.0xI _N (mV) | Agency Approval | | | |
|-------------------|----------|------------------------|-----|----------------------------------|---|---|--|-----------------|-------|-------|------|
| | | AC | DC | | | | | CE | UK CA | UL US | PS E |
| 2.00 | 1200 | 250 | 450 | 200A to 10kA @ 250VAC | 0.069 | 0.0610 | 342 | x | x | x | x |
| 2.50 | 1250 | 250 | 450 | 300A to 10kA@450VDC | 0.054 | 0.0898 | 300 | x | x | x | x |
| 3.00 | 1300 | 250 | 350 | 200A@250VAC | 0.042 | 0.2007 | 276 | x | x | x | x |
| 3.15 | 1315 | 250 | 350 | 300A to 10kA@350VDC | 0.038 | 0.2191 | 270 | x | x | x | x |
| 4.00 | 1400 | 250 | 250 | 200A@250VAC | 0.027 | 0.5445 | 240 | x | x | x | x |
| 5.00 | 1500 | 250 | 250 | 300A to 10kA@250VDC | 0.022 | 1.1584 | 215 | x | x | x | x |

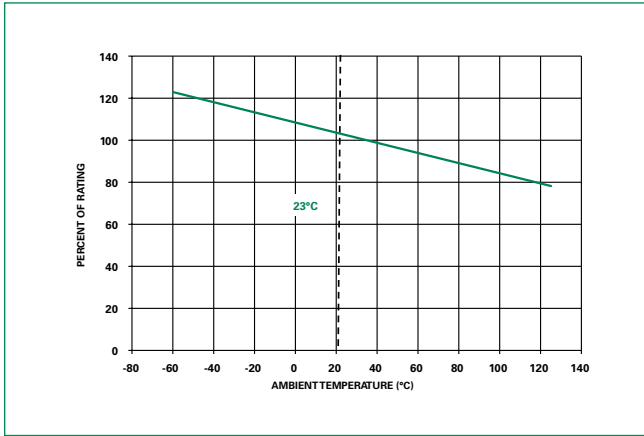
Notes:

1. This fuse is not recommended for use in DC circuits where the available prospective short-circuit current is less than 300A at rated voltage.
2. Cold resistance measured at less than 10% of rated current at 23°C.
3. An operating current of 80% or less of rated current is recommended, with further derating required at elevated ambient temperature.
4. Have special electrical characteristic needs? Contact Littelfuse to learn more about application specific options.

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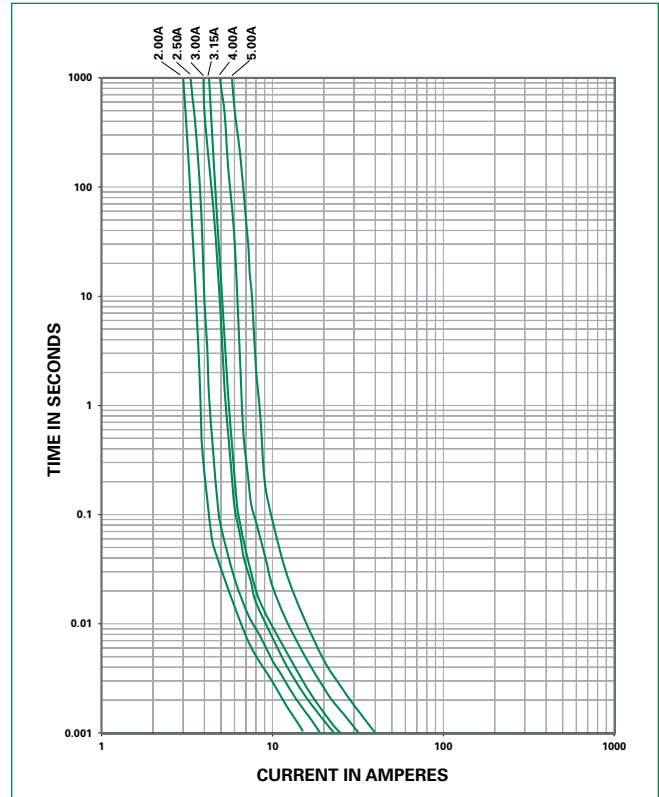
Temperature Re-rating Curve



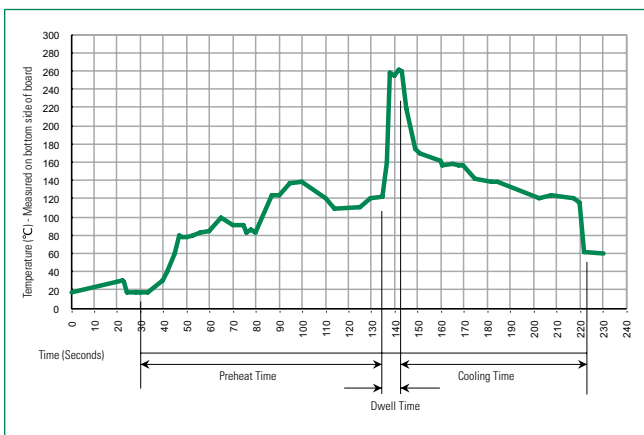
Note:

1. Derating depicted in this curve is in addition to the standard derating of 20% for continuous operation.

Average Time Current Curves



Soldering Parameters - Wave Soldering



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: | 260°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.

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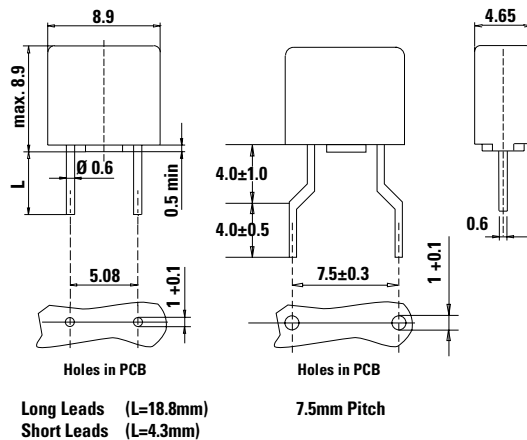
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Product Characteristics

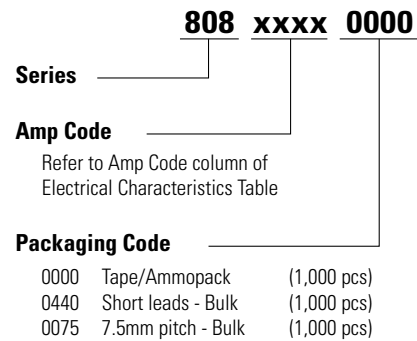
| | |
|------------------------|--|
| Materials | Base/Cap: Black Thermoplastic Polyphenylene Sulfide, UL 94 V-0 Round Pins: Copper, Sn-plated |
| Product Marking | Body: Brand Logo, Current Rating Rated Voltage, Characteristic "F" |
| Solderability | 260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron) |
| Thermal Shock | 50 cycles, 15 minutes at -65°C/15 minutes at 125°C (MIL-STD-202, Method 107) |

| | |
|------------------------------|---|
| Operating Temperature | -65°C to +125°C (Consider re-rating) |
| Moisture Resistance | 10 cycles, 65°C at 90-98% R.H. over 150 minutes, 180 minutes holding time, Reduce temperature to 23 – 35°C over 150 minutes, 8 hours holding time |
| Vibration Resistance | 24 cycles at 5 min. each (IEC60068-2-6) 10-60Hz at 0.75mm amplitude 60-2000Hz at 10G's acceleration |

Dimensions (mm)



Part Numbering System



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-------------------|-------------------------|----------|---------------------------|--------------|
| 808 Series | | | | |
| Tape & Ampopack | N/A | 1,000 | 0000 | N/A |
| Short Leads | N/A | 1,000 | 0440 | N/A |
| 7.5 mm Pitch | N/A | 1,000 | 0075 | N/A |

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