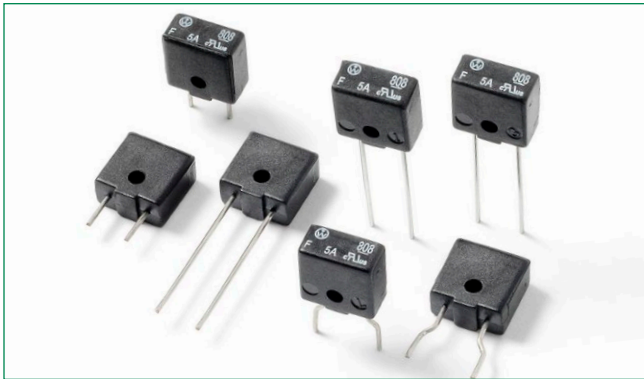


808 Series TE5® Fast-Acting 450V Fuse



Description

The 450V 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

- 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

Agency Approvals

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

Additional Information



Datasheet



Resources



Samples

Applications

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

Electrical Characteristics

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

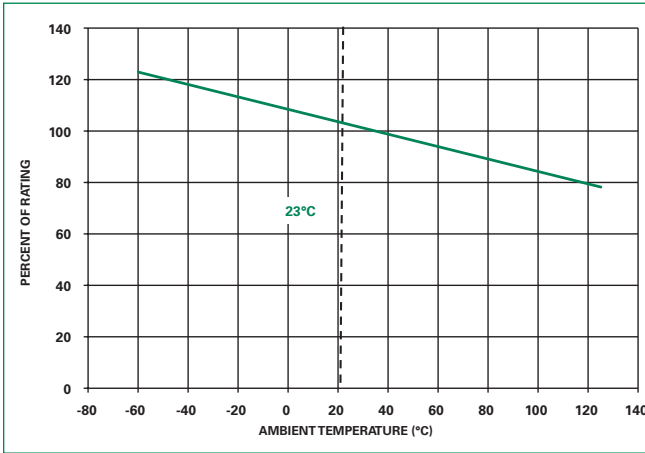
Electrical Characteristics

| 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 | | | | | | |
| 2.00 | 1200 | 250 | 450 | 200A@250VAC 300A to 10kA@450VDC | 0.069 | 0.0610 | 342 | x | x |
| 2.50 | 1250 | 250 | 450 | | 0.054 | 0.0898 | 300 | x | x |
| 3.00 | 1300 | 250 | 350 | 200A@250VAC 300A to 10kA@350VDC | 0.042 | 0.2007 | 276 | x | x |
| 3.15 | 1315 | 250 | 350 | | 0.038 | 0.2191 | 270 | x | x |
| 4.00 | 1400 | 250 | 250 | 200A@250VAC 300A to 10kA@250VDC | 0.027 | 0.5445 | 240 | x | x |
| 5.00 | 1500 | 250 | 250 | | 0.022 | 1.1584 | 215 | 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.

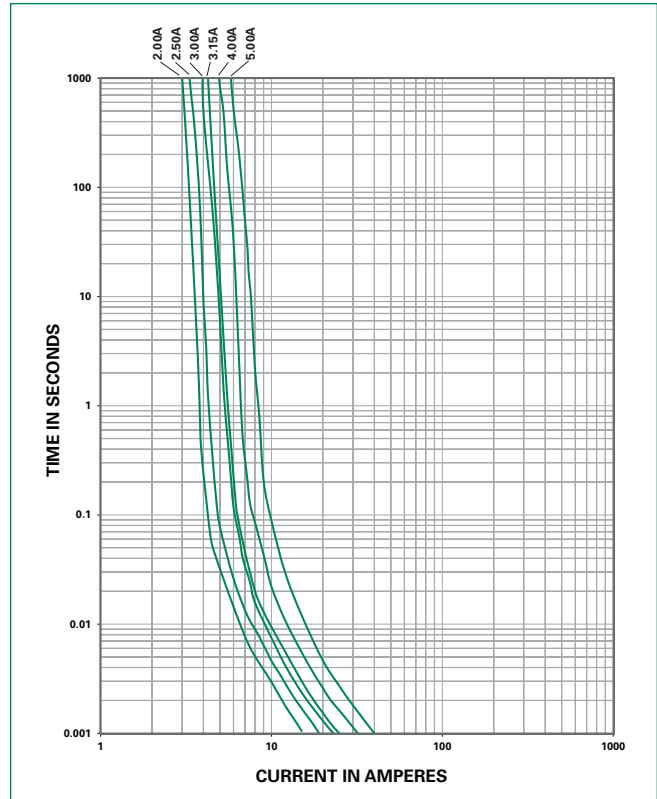
Temperature Re-rating Curve



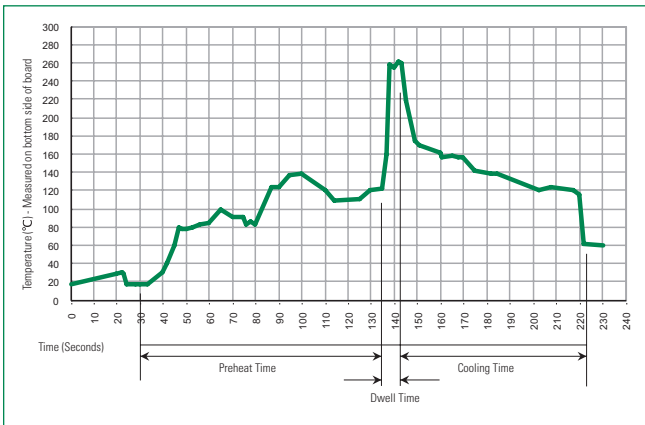
Note:

1. Rerating 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.

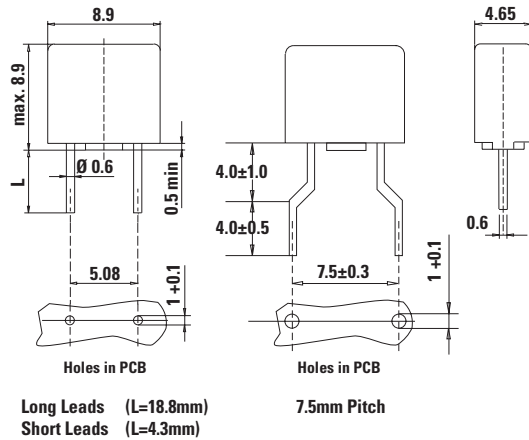
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

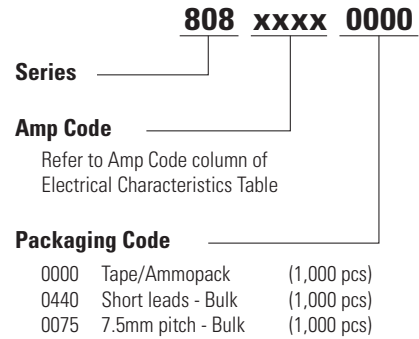
| | |
|------------------------|---|
| Materials | Base/Cap: Black Thermoplastic Polyphenylene Sulfide, UL 94 V-0 Round Pins: Copper, Sn-plated |
| Product Marking | Body: Brand Logo, Current Rating Rated Voltage, Characteristic "F" |
| Solderability | 260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron) |
| 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



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 |

Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at: www.littelfuse.com/disclaimer-electronics.