# **Radial Lead Fuses**

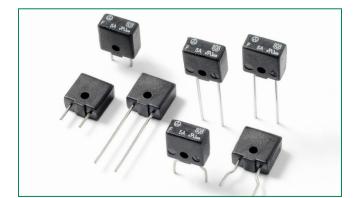
TE5 > Fast Acting 450V > 808 Series

# 808 Series TE5® Fast Acting 450V Fuse









### **Agency Approvals**

Agency	Agency File Number	Ampere Range		
c <b>FN</b> °us	E67006	2.00A - 5.00A		
PS	NBK060111-JP1021A	2.00A - 5.00A		

### **Description**

The 450VTE5 Fast-acting Fuse is designed to enable compliance with the RoHS Directive. This product is fully compatible with lead-free solder alloy. This device is UL Recognized for protecting components or internal circuits against overcurrent condition at high DC application.

#### **Features**

- Lead-free
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- RoHS compliant
- Shock safe casing
- Vibration resistant
- Halogen-free
- Antimony-free
- Ideal for high voltage DC applications

# **Applications**

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

## **Additional Information**







# **Electrical Characteristics**

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

#### **Electrical Characteristics**

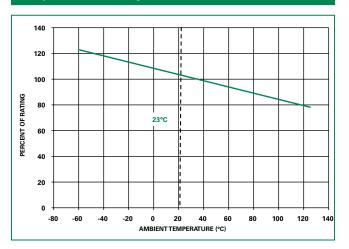
Ampere Rating	Amp	Max Voltage Rating (V)		Interrupting Rating		Nominal Cold Resistance	Nominal Melting l2t	Max Voltage Drop	Agency Approval									
(A)	Code	AC	DC	AC	DC Min	DC Max	(Ohms)	(10ln - A <sup>2</sup> sec)	(Mv)	PS	c <b>'71</b> °us							
2.00	1200	250	450	200A	200A 300A	200A 300A 10kA	0.069	0.0610	342	Х	Х							
2.50	1250	250	450				2004 1014	A 200A	A 200A	2004	2004	2004 10k4		0.054	0.0898	300	Х	Х
3.00	1300	250	350										101/4	0.042	0.2007	276	Х	Х
3.15	1315	250	350				300A TOKA	0.038	0.2191	270	Х	Х						
4.00	1400	250	250									0.027	0.5445	240	Х	Х		
5.00	1500	250	250					0.022	1.1584	215	Х	x						

#### Notes:

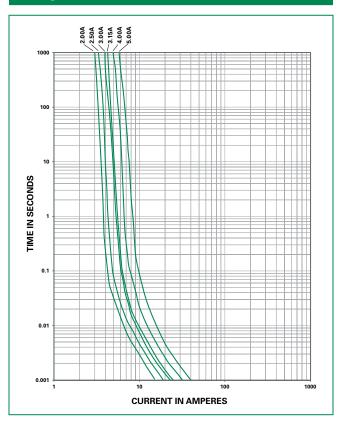
- 1. Cold resistance measured at less than 10% of rated current at 23°C.
- 2. An operating current of 80% or less of rated current is recommended, with further derating required at elevated ambient temperature.
- 3. Have special electrical characteristic needs? Contact Littelfuse to learn more about application specific options.



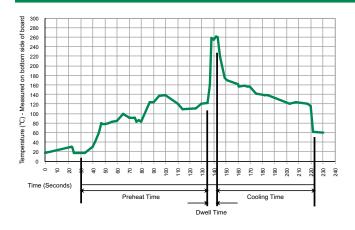
# **Temperature Rerating Curve**



### **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 DwellTime:	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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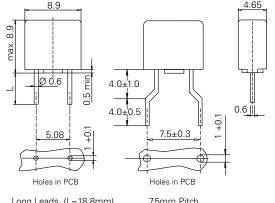
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## **Product Characteristics**

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 with proper derating		
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 (EN60068-2-6) 10-60Hz at 0.75mm amplitude 60-2000Hz at 10G's acceleration		

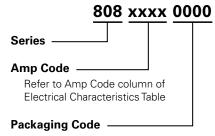
### **Dimensions**



#### Long Leads (L=18.8mm) Short Leads (L=4.3mm)

7.5mm Pitch

# **Part Numbering System**



0000 Tape/Ammopack (1,000 pcs) 0440 Short leads - Bulk (1,000 pcs) 0075 7.5mm pitch - Bulk (1,000 pcs)

# **Packaging**

Packaging Option Packaging Specification		Quantity	Quantity & Packaging Code	Taping Width				
808 Series								
Tape & Ammopack	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				