

### 507 Series Lead-Free High Voltage DC Fuse





#### Description

A 650VDC rated ceramic-body fuse in a compact 6.3 x 32mm package. Well suited for overcurrent protection in high-voltage DC circuits requiring compact form factors.

#### Features

- Rated voltage of 650VDC
- Available in cartridge and axial lead version
- RoHS compliant and Lead-free
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14

#### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	1A–8A
	N/A	1A–8A

#### Applications

- High voltage DC power application
- Power inverters
- Variable Frequency Drives (VFDs)
- Motor drives
- DC-DC Converter
- High voltage power supplies
- Power conversion equipment

#### Additional Information



[Datashheet](#)



[Resources](#)





[Samples](#)

#### Electrical Characteristics for Series

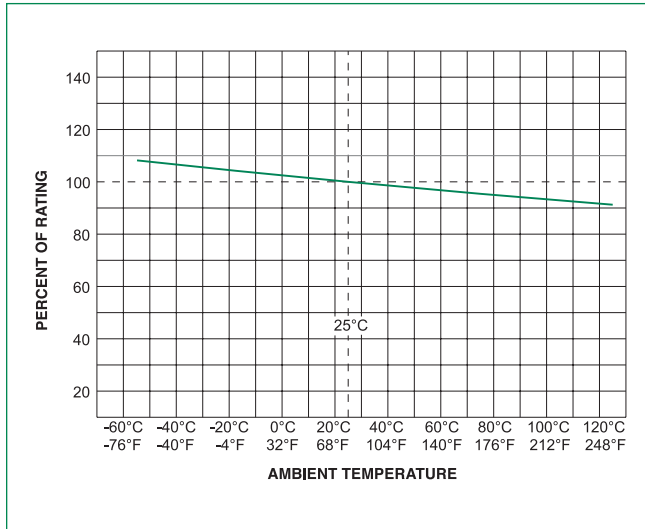
% of Ampere Rating	Ampere Rating	Opening Time
100%	1A–8A	4 Hours, Minimum
200%		120 Seconds, Maximum

#### Electrical Characteristic Specifications by Item

Amp Code	Ampere Rating (A)	Max. Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms) *	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) *	Agency Approvals	
							
001.	1	650VDC	150A@650VDC	0.37	0.6	x	x
1.25	1.25			0.23	1.5	x	x
01.6	1.6			0.165	2.9	x	x
002.	2			0.115	2.3	x	x
02.5	2.5			0.083	4.1	x	x
3.15	3.15			0.056	9.3	x	x
004.	4			0.055	8	x	x
005.	5			0.042	12.5	x	x
06.3	6.3			0.0285	29	x	x
008.	8			0.0207	53	x	x

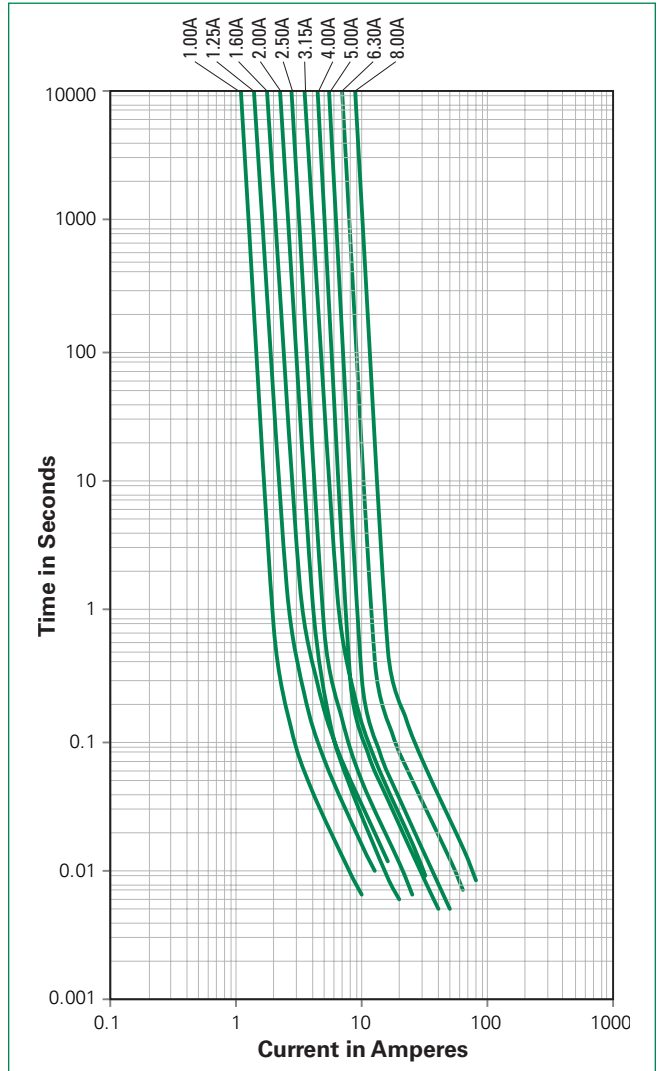
\* Unless otherwise stated, all specifications are referenced at room ambient temperature.

### Temperature Re-rating Curve

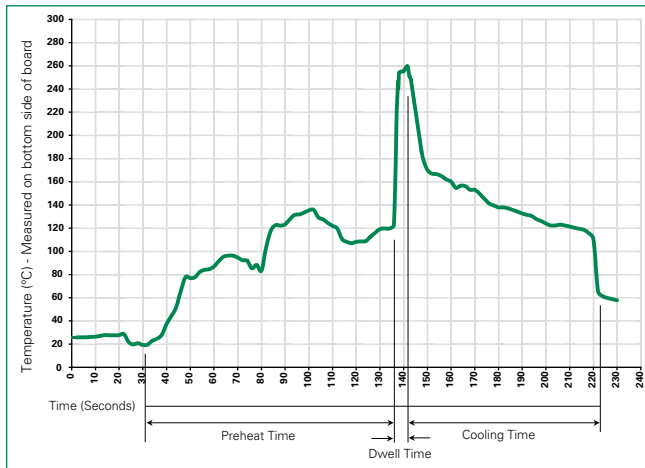


**Note:**  
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (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 to 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.

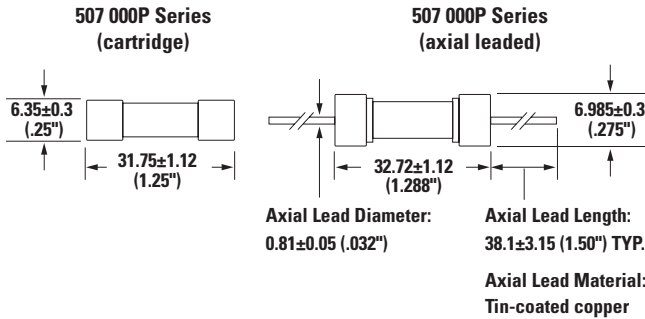
### Product Characteristics

<b>Materials</b>	Body : Ceramic Cap : Nickel-plated brass Leads : Tin-plated Copper
<b>Terminal Strength</b>	MIL-STD-202, Method 211, Test Condition A
<b>Solderability</b>	MIL-STD-202 Method 208
<b>Product Marking</b>	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks

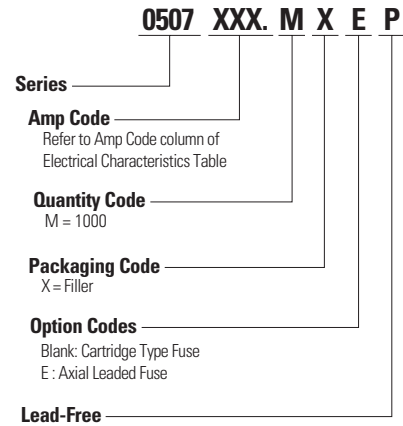
<b>Operating Temperature:</b>	-55°C to 125°C
<b>Thermal Shock:</b>	MIL-STD-202, Method 107, Test Condition B: (5 cycles -65°C to +125°C)
<b>Vibration</b>	MIL-STD-202, Method 201
<b>Humidity</b>	MIL-STD-202, Method 103, Test Condition A: High relative humidity (95%) and elevated temperature (40°C) for 240 hours
<b>Salt Spray</b>	MIL-STD-202, Method 101, Test Condition B

### Dimensions

Measurements displayed in millimeters (inches)



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
<b>507 Series</b>				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A