

# High Current & Voltage Cartridge Fuses

## Lead-free > 6x32mm Fuse > 527 Series



### Description

Littelfuse 527 series fuse is specifically designed and tested to the circuit protection needs of compact auto electronics applications, which is 500 Vac rated with remarkable interrupting rating.

### Features

- RoHS compliant and Lead-free
- High Interrupt Rating

### Benefits

- Small size
- High current
- High voltage
- High breaking capacity

### Applications

- On-Board Charger (OBC)

### Additional Information



Resources



Accessories



Samples

### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	30 A to 50 A

### Electrical Characteristics

% of Ampere Rating	Ampere Rating	Opening Time at 25°C
100%	30 A to 50 A	4 hours, Min.
135%	30 A to 40 A	60 minutes, Max.
200%	30 A to 50 A	120 seconds, Max.

### Electrical Specifications

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating (AC/DC)	Nominal Code Resistance (Ohm)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Agency Approvals
30	030.	500VAC	10kA@500VAC*	0.0028	700	x
40	040.			0.0020	1090	x
50	050.	305VAC	10kA@305VAC	0.0014	2460	x

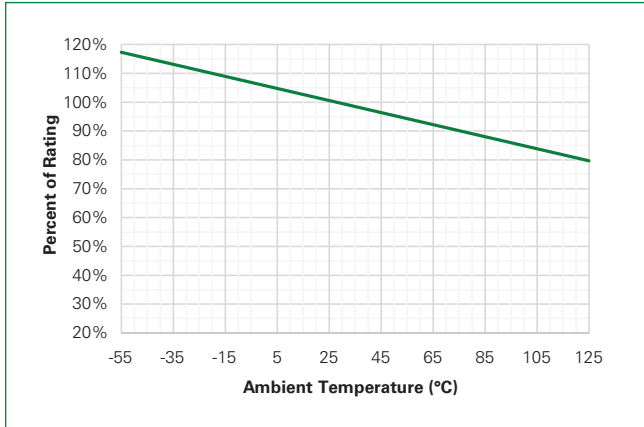
#### Note

\* 10kA@500VDC also available for 30 A rating with minimum 200% fusing current @500VDC. Unless otherwise stated, all specifications are referenced at room ambient temperature.

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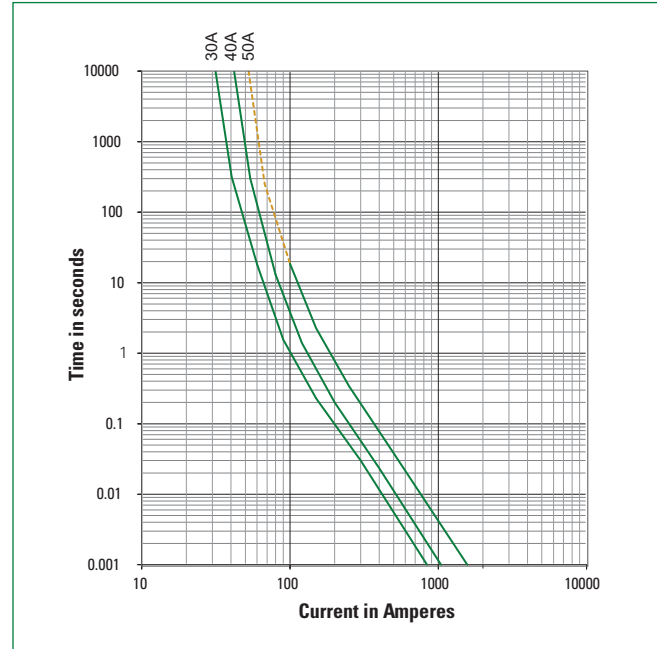
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## Temperature Re-rating Curve



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

## Average Time Current Curves

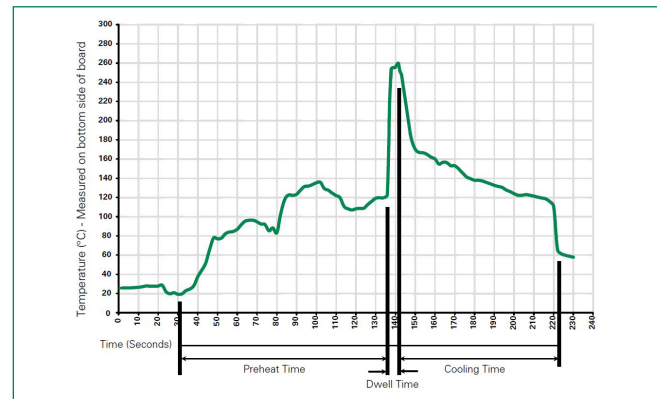


**Note:**  
For 50 A rating, it may not break current consistently when overload current is less than 200% I<sub>n</sub> (represented by dotted portion of this Time Current Curve), as may be arc current continuously pass through fuse under this condition. Do not recommend to use conditions of below 200% I<sub>n</sub> overload.

## Product Characteristics

<b>Materials</b>	<b>Body:</b> Glass fiber <b>Cap:</b> Ni plated copper alloy <b>Terminal:</b> Tin plated copper alloy
<b>Mechanical Shock</b>	MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds)
<b>Solderability</b>	Reference MIL-STD-202 method 208
<b>Product Marking</b>	Cap 1: Brand logo, current and voltage ratings Cap 2: Agency approval marks
<b>Resistance to Solder Heat</b>	MIL-Std 202 Method 210 Test Condition B (10 sec at 260 °C)
<b>Operating Temperature</b>	-55 °C to +125 °C
<b>Thermal Shock</b>	MIL-STD-202G, Method 107G, Test condition B
<b>Vibration</b>	MIL-STD-202G, Method 201A
<b>Moisture Resistance</b>	MIL-STD-202G, Method 103B, Test condition A
<b>Salt Spray</b>	MIL-STD-202G, Method 101E, Test condition B

## Soldering Parameters–Wave Soldering



Wave Parameter	Lead-Free Recommendation
<b>Preheat:</b> (Depends on Flex Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum	100 °C
Temperature Maximum	150 °C
Preheat Time	60–180 seconds
<b>Solder Pot Temperature</b>	260 °C Maximum
<b>Solder Dwell Time</b>	2–5 seconds

**Recommended Hand-Solder Parameters:**

Solder Iron Temperature: 350 °C +/- 5 °C  
Heating Time: 5 seconds max.

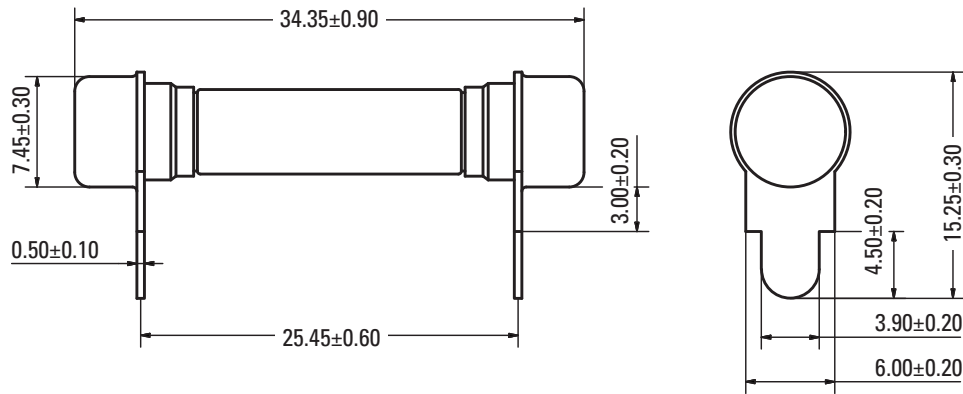
**Note:** These devices are not recommended for IR or Convection Reflow process.

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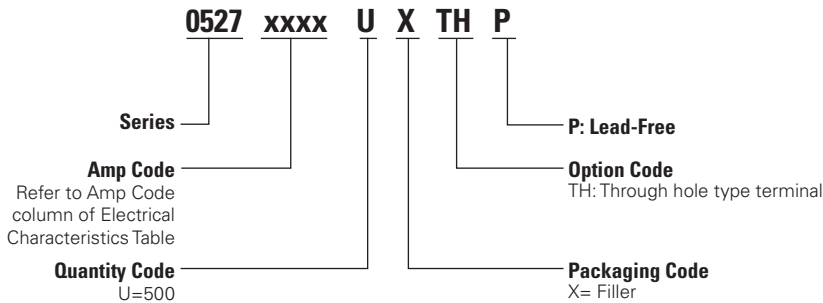
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### Dimensions

Unit: mm



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
<b>527 Through hole terminal</b>				
Tray	NA	500	NA	NA

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