#### Fuse Datasheet





## **Additional Information**





Samples

Resources

# **Agency Approvals**

Agency	Agency File Number	Ampere Range
c <b>AL</b> us	E10480	30 A - 50 A

## **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 & Benefits**

- RoHS compliant and Leadfree
- High Interrupt Rating
- Small size

- High current
- High voltage
- High breaking capacity

### **Applications**

On-Board Charger (OBC)

#### **Electrical Characteristics**

% of Ampere Rating	Ampere Rating	Opening Time at 25°C
100%	30 A - 50 A	4 hours, Min.
135%	30 A - 40 A	60 minutes, Max.
200%	30 A - 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 I²t (A²sec)	Agency Approvals
30	030.	500VAC	10kA@500VAC*	0.0028	700	×
40	040.	500VAC	IUKA@500VAC"	0.0020	1090	х
50	050.	305VAC	10kA@305VAC	0.0014	2460	x

#### Note

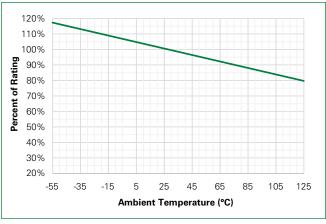
\* 10kA@500VDC also available for 30 A rating with minimum 200% fusing current @500VDC.

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



#### Fuse Datasheet

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

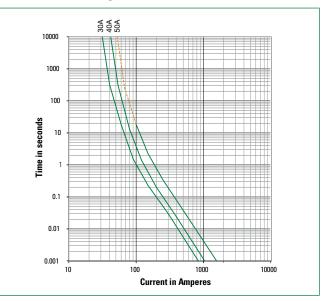


Temperature Re-rating Curve

#### Note:

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

#### Average Time Current Curves



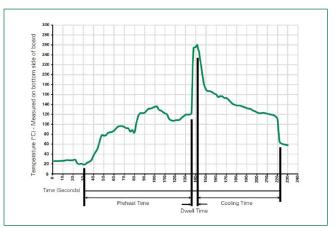
#### Note:

For 50 A rating, it may not break current consistently when overload current is less than 200% I<sub>h</sub> (represented by dotted portion of this Time Current Curve), as may be arc current continuously pass through fuse under this condition. Not recommended for conditions requiring overloads of below 200% I<sub>n</sub>.

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

**Product Characteristics** 

#### **Soldering Parameters–Wave Soldering**

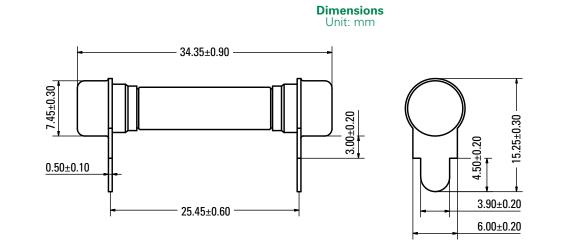


Wave Parameter	Lead-Free Recommendation
Preheat:	
(Depends on Flex Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum	100 °C
Temperature Maximum	150 °C
PreheatTime	60–180 seconds
Solder Pot Temperature	260 °C Maximum
Solder Dwell Time	2–5 seconds
Recommended Hand-Solder Parameters:	

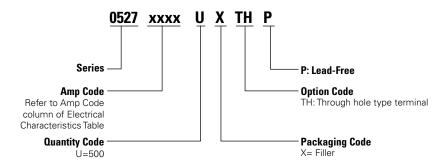
Solder Iron Temperature: 350 °C +/- 5 °C

Heating Time: 5 seconds max.

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



Part Numbering System



#### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
527 Through hole terminal				
Tray	NA	500	NA	NA

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