

# 828 Series

## High Voltage Cartridge Fuses



### Description

The 828 Series fuses are specifically designed and tested to the circuit protection needs of compact auto-electronics applications. This series is rated 1,000Vdc with remarkable interrupting rating.

### Features and Benefits

- Available in Through-hole and Bolt Down version
- RoHS-compliant, lead-free and halogen-free.
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14 for the US and Canadian Markets
- Small size
- High voltage
- High breaking capacity
- AEC-Q200 Qualified

### Additional Information



Resources



Accessories



Samples

### Applications

- On-Board Charger
- Power Distribution Unit

### Agency Approvals

Agency	Agency File Number	Ampere Range
c UL US	E10480	15 A - 30 A

### Electrical Characteristics

% of Ampere Rating	Ampere Rating	Opening Time at 25°C
100%	15 A - 30 A	4hrs, Min.
135%	15 A - 30 A	3600 seconds, Max.

### Electrical Specifications

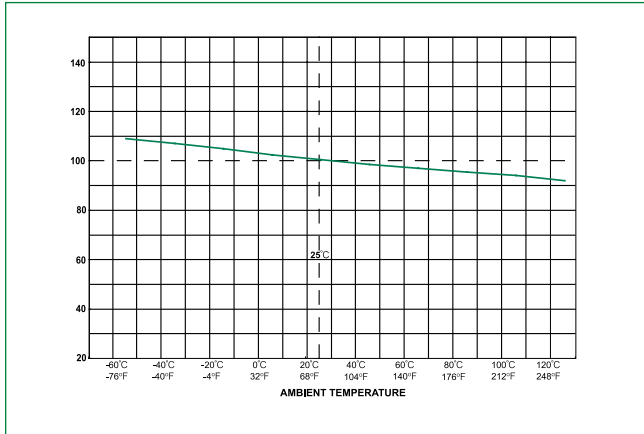
Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating (AC/DC)	Nominal Cold Resistance (mOhm)	Nominal Melting I²t (A²sec)	Agency Approvals
15	015.	1000Vdc	10KA@1000Vdc	7.65	190	c UL US x
20	020.			4.90	536	x
25	025.			3.20	1190	x
30	030.			2.90	1500	x

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

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### Temperature Re-rating Curve

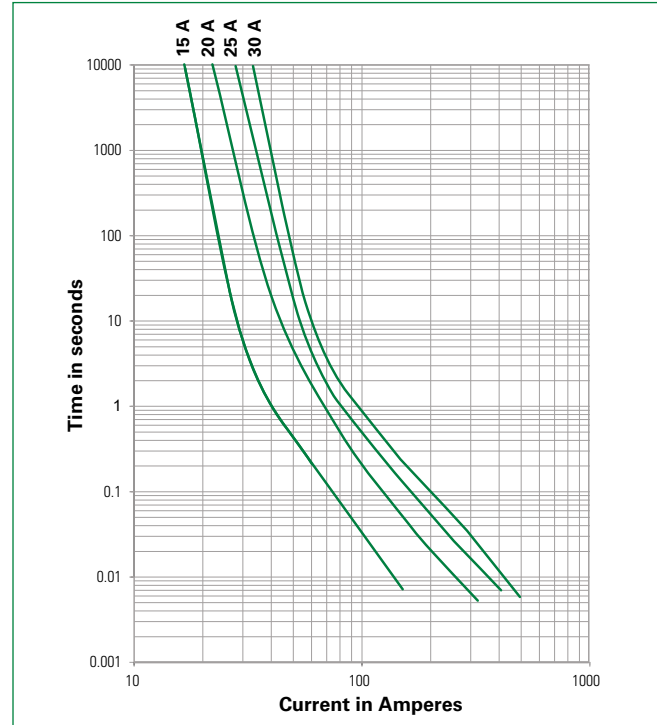


Note: Re-rating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

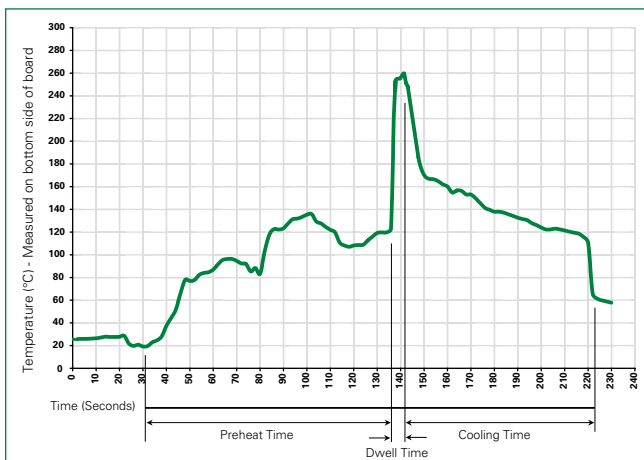
### Product Characteristics

<b>Materials</b>	Body: Glass fiber Cap: 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>	Brand logo, current and voltage ratings
<b>Resistance to Solder Heat</b>	MIL-Std 202 Method 210 Test Condition B (10sec at 260 °C)
<b>Operating Temperature</b>	-55 °C to +125 °C
<b>Vibration</b>	MIL-STD-202G, Method 201A
<b>Salt Spray</b>	MIL-STD-202G, Method 101E, Test condition B

### Average Time Current Curves



### 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.

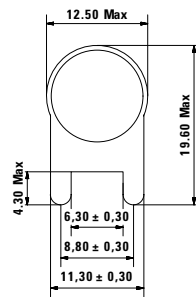
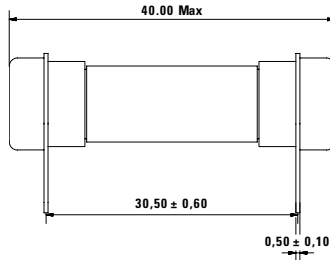
**Note:** These devices are not recommended for IR or Convection Reflow process.

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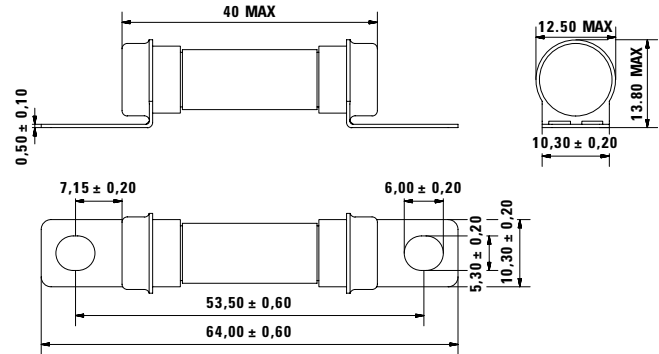
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### Dimensions (mm)

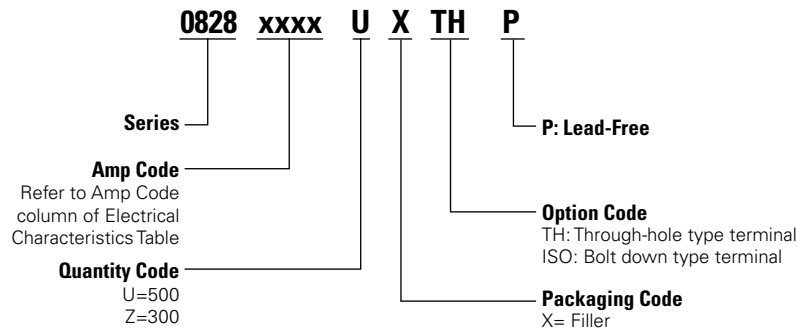
Through-hole



Bolt Down



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
<b>828 Though Hole Version</b>				
Tray	NA	500	UXTH	NA
<b>828 Bolt Down Version</b>				
Tray	NA	300	ZXISO	NA

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