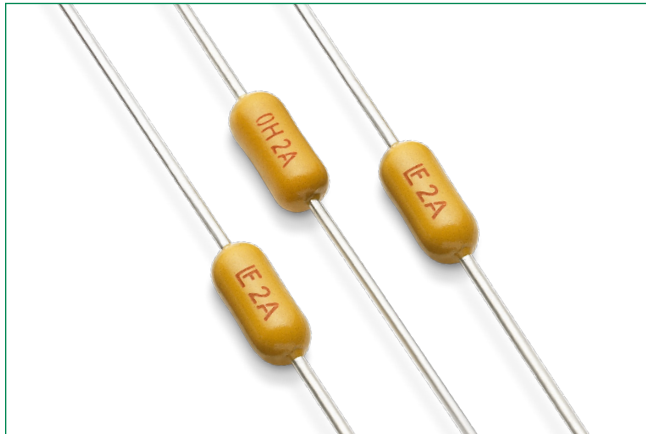


# PICO® II 521 Series

## AEC-Q200 Qualified > Very Fast-Acting Fuse



### Description

The 0521 PICO® II Very Fast-Acting Fuse Series is an AEC-Q200 Qualified fuse designed to meet an extensive array of performance characteristics in a space-saving sub-miniature package.

### Features & Benefits

- Very fast-acting
- Small size
- AEC-Q200 Qualified
- Applicable in wire harness application
- Halogen-free and RoHS-compliant
- Wide operating temperature range

### Applications

Secondary protection for space constrained applications:

- Battery Management System protection

### Additional Information



Resources



Accessories



Samples

### Electrical Characteristics

% of Ampere Rating	Ampere Rating	Opening Time
100%	2A - 7A	4 Hours, Min.
200%	2A - 7A	1 Second, Max.

### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	2A - 7A

### Electrical Specifications

Ampere Rating (A)	Amp Code	Ordering Number (Std.)	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Nominal Voltage Drop (V)	Agency Approvals
2.00	002.	521002.	75	300 A @ 75 VDC	0.0473	0.405	0.141	X
2.50	02.5	52102.5			0.036	0.70	0.132	X
3.00	003.	521003.			0.0295	01.05	0.131	X
3.15	3.15	5213.15			0.0275	1.26	0.129	X
3.50	03.5	52103.5			0.024	1.61	0.1205	X
4.00	004.	521004.			0.0204	2.02	0.114	X
5.00	005.	521005.			0.0158	03.61	0.11	X
7.00	007.	521007.			0.0109	9.23	0.102	X

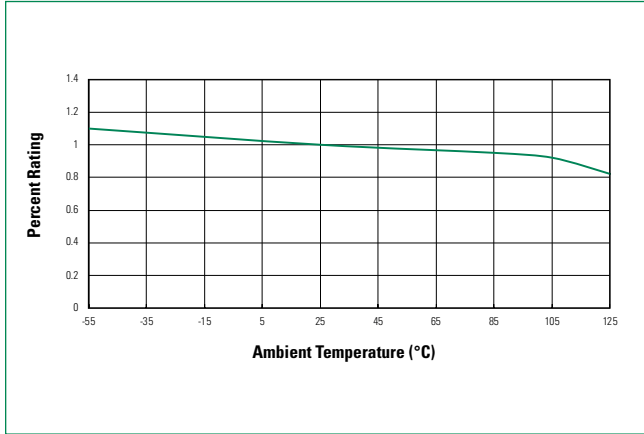
#### Notes

1. Cold resistance measured at less than 10% of rated current at 23° C.
2. I<sup>2</sup>t values measured at 8 ms opening time.

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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.

### Soldering Parameters

Recommended Process Parameters:

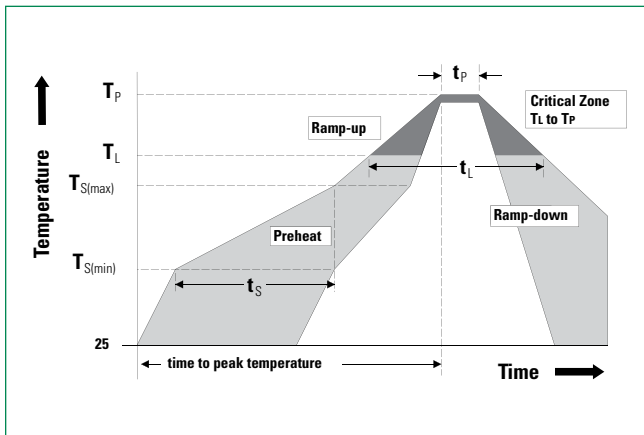
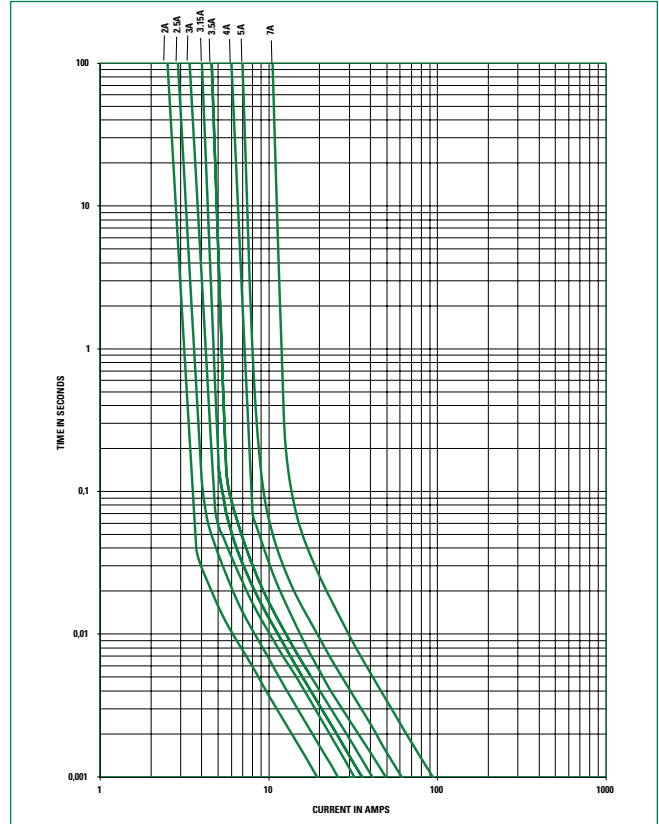
Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60–180 seconds
Solder Pot Temperature:	260° C Maximum
Solder Dwell Time:	2–5 seconds

Recommended Hand Soldering 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

### Average Time Current Curves



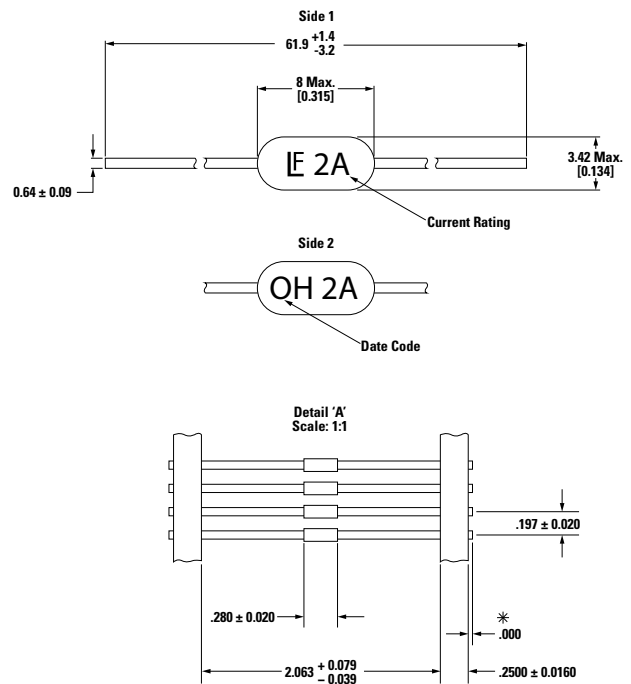
# PICO® II 521 Series

## AEC-Q200 Qualified > Very Fast-Acting Fuse

### Product Characteristics

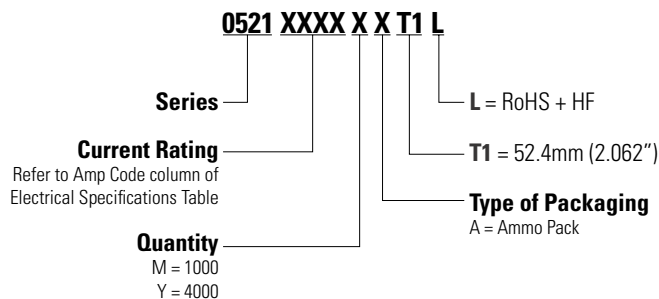
<b>Materials</b>	Body: Encapsulated, Epoxy-Coated Leads: Tin-Coated Copper
<b>Product Marking</b>	Body: Brand Logo, Current Rating, & Date Code
<b>Lead Pull Force</b>	MIL-STD-202, Method 211, Test Condition A (will withstand a 7 lbs. axial pull test)
<b>Operating Temperature</b>	-55° C to +125° C (Consider re-rating)
<b>Resistance to Soldering Heat</b>	Withstands 60 seconds above 200° C and up to 260° C, maximum
<b>Vibration</b>	MIL-STD-202, Method 204, 10-2000-10 Hz vibration traversed in 20 minutes, with 5g peak, for 12 cycles in 3 planes
<b>Thermal Shock</b>	JESD22-A104, 15 min. at -55° C lowest temp and 15 min. at 125° C highest temp, 5 minutes maximum transition
<b>Biased Humidity</b>	MIL-STD-202, Method 103, Test Condition D
<b>Flammability Rating</b>	UL 94, V-0 epoxy coating
<b>Electrical Characterization</b>	Conducted at minimum, ambient and maximum temperatures

### Dimensions mm (inches)



\* EIA Standard 296-E Allowed  
Maximum is .031, but Zero Lead Extension is preferred.

### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity & Packaging Code
*T1: 52.4mm (2.062") Ammo-Pack	EIA 296-E	Please refer to available quantities above in "Part Numbering System"

The default lead length for both ammo pack and loose pack is T1.

#### Notes

\* T1 dimension is defined as the length of the component between the two tapes.  
The full component length is 62.7 mm (2.468").

**Disclaimer Notice** - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <https://www.littelfuse.com/legal/disclaimers/product-disclaimer.aspx>.