#### Fuse Datasheet

# PICO<sup>®</sup> II 521 Series

# Very Fast-Acting Fuse





#### **Agency Approvals**

Agency	Agency File Number	Ampere Range
c <b>FL</b> <sup>®</sup> us	E10480	2 A

#### **Electrical Characteristics**

**Electrical Specifications** 

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

#### **Description**

The 0521 PICO<sup>®</sup> 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**

- Very fast-acting
- Small size
- AEC-Q200 qualified\*
- Applicable in wire harness application

#### **Benefits**

- Small Size
- Meets Littelfuse's automotive qualifications\*
- Halogen-free and **RoHS-compliant**
- Wide operating temperature range
- Wide range of temperature applications
- \* Littelfuse internal AEC-0200 gualified

#### **Applications**

Secondary protection for space constrained applications:

Battery Management System protection

#### Agency Ampere Ordering Max Voltage **Nominal Cold** Nominal Nominal Approvals Interrupting Rating Amp Code Number Rating Resistance Melting Voltage Drop Rating (A) (Std.) (V) (Ohms) I<sup>2</sup>t (A<sup>2</sup> sec) (V) 300 A @ 002. 521002. 75 0.405 2.00 0.0473 0.141 Х 75 VDC

Notes

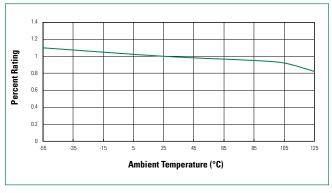
1. Cold resistance measured at less than 10% of rated current at 23° C.

2. I<sup>2</sup>tvalues measured at 8 ms opening time.

3. If you have special characteristic needs, please contact Littelfuse to discuss appllication specific options.

# **PICO<sup>®</sup> II 521 Series** Very Fast-Acting Fuse

#### **Temperature Re-rating Curve**



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

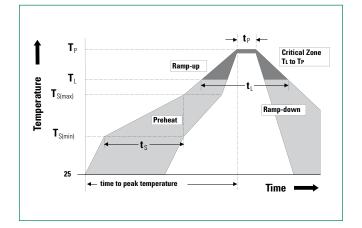
## **Soldering Perameters**

#### Recommended Process Parameters:

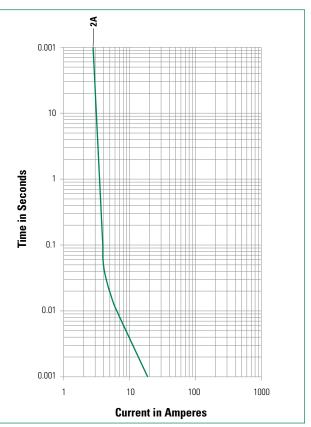
Wave Parameter	Lead-Free Recommendation	
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)	
Temperature Minimum:	100° C	
Temperature Maximum:	150° C	
Preheat Time:	60–180 seconds	
Solder Pot Temperature:	260° C Maximum	
Solder Dwell Time:	2-5 seconds	

# **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**



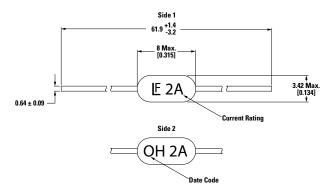


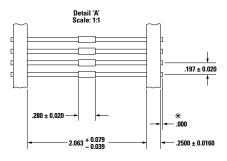
# **PICO<sup>®</sup> II 521 Series** Very Fast-Acting Fuse

#### **Product Characteristics**

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

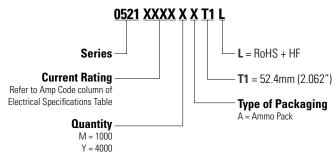
#### Dimensions





\* 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").

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