## **Axial Lead & Cartridge Fuses**

3AB > Fast-Acting > 514 Series

### 514 Series Lead-Free 3AB, Fast-Acting Fuse





## **Features**

**Description** 

• Available in cartridge and axial lead form

energy applications.

- Lead-free, Halogen free, and RoHS compliant
- Compact form factor of 6.3mm x 32mm
- High Interrupting Rating

#### **Agency Approvals**

AGENCY	CERTIFICATE NUMBER	AMPERE RANGE
c <b>FU</b> °us	E10480	0.4 - 16A
<b>(</b> €	N/A	1.6 - 12.5A

#### **Applications**

High energy and power efficient applications

The 514 Series fuses are 500VAC rated ceramic fuses with remarkable interrupting rating in a compact 6.3 x 32mm package. They are well suited for circuit protection in high

#### **Electrical Characteristics for Series**

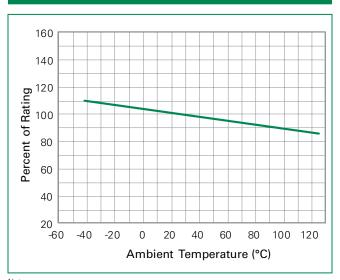
% of Ampere Rating	Ampere Rating	Opening Time
100%	1.6A - 12.5A	4hours, Min
200%	1.0A - 12.5A	120 sec, Max

#### **Electrical Characteristics**

A O L Amp Rating	Max. Voltage	Interrupting	Nominal Cold	Nominal	Agency Approvals		
Amp Code	p Code   '(A)   Rating   Rating   Resistance   Melting	Melting l <sup>2</sup> t (A <sup>2</sup> sec)	c <b>71</b> °us	Œ			
01.6	1.6			214	1.92	X	X
002.	2			150	4.12	X	X
3.15	3.15	500VAC 5000A @500Vac	76	5.54	X	X	
004.	4		49	12.43	X	X	
005.	5		63.6	6.14	X	X	
06.3	6.3		43	13.5	X	X	
008.	8		29	28.8	X	X	
010.	10		20.2	50.6	X	X	
12.5	12.5			14.9	114	X	X

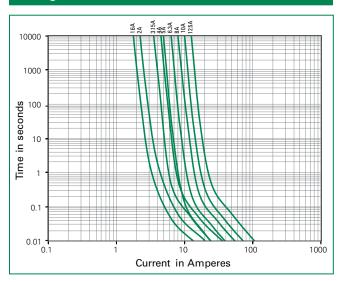


#### **Temperature Re-rating Curve**



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

#### **Average Time Current Curves**



#### **Soldering Parameters - Wave Soldering**



#### **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 DwellTime:	2 to 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.

#### **Product Characteristics**

Materials	Body : Ceramic Cap : Nickel Plated Brass Leads: Tin-plated copper		
Terminal Strength	MIL-STD-202G, Method 211A, Test condition A		
Solderability	Reference MIL-STD-202 Method 208		
Product Marking	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks		

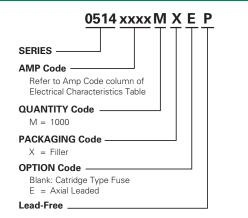
Operating Temperature	−55°C to +125°C
Thermal Shock	MIL-STD-202G, Method 107G, Test condition B: (5 cycles -65°C to 125°C)
Vibration	MIL-STD-202G, Method 201A
Moisture Resistance	MIL-STD-202G, Method 103B, Test condition A
Salt Spray	MIL-STD-202G, Method 101E, Test condition B

# **Axial Lead & Cartridge Fuses** 3AB > Fast-Acting > 514 Series

#### **Dimensions** 514 Series 514 Series (cartridge) (axial leaded) 6.35±0.3 6.985±0.3 (.25") (.275") 31.75±1.12 -32.72±1.12 (1.25")(1.288") Axial Lead Diameter: Axial Lead Length: 1.02±0.06 (.04") for 8-12.5A 38.1±3.15 (1.50") TYP.

0.81±0.05(.032") for 1.6-6.3A

#### **Part Numbering System**



#### **Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size	
514 Series					
Bulk	N/A	1000	MX	N/A	
Bulk	N/A	1000	MXE	N/A	

Axial Lead Material:

Tin-coated copper

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