

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



**Description**

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 energy applications.

**Features**

- Available in cartridge and axial lead form
- Compact form factor of 6.3mm x 32mm
- Lead-free, Halogen free, and RoHS compliant
- High Interrupting Rating

**Applications**

High energy and power efficient applications.

**Agency Approvals**

Agency	Certificate number	Ampere Range
	E10480	1.6A - 12.5A
	N/A	1.6A - 12.5A

**Electrical Characteristics for Series**

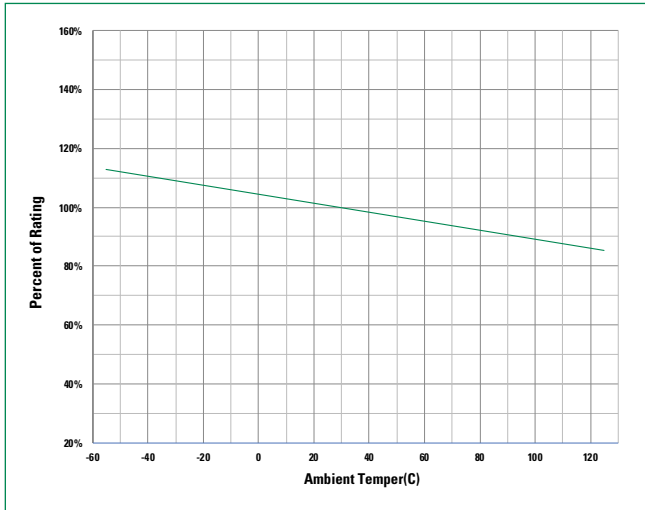
% of Ampere Rating	Ampere Rating	Opening Time
100%	1.6A - 12.5A	4hours, Min
200%		120 sec, Max

**Electrical Characteristics**

Amp Code	Amp Rating (A)	Max. Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (mOhm)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Agency Approvals	
01.6*	1.6	500VAC	5000A @500Vac	214	1.92	X*	X
002.	2			150	4.12	X	X
3.15	3.15			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

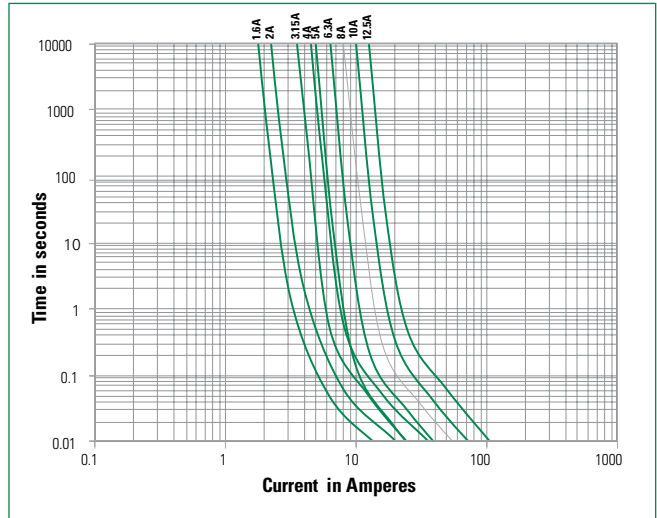
\* 25KA@500VAC interrupting rating available for 1.6A

**Temperature Re-rating Curve**

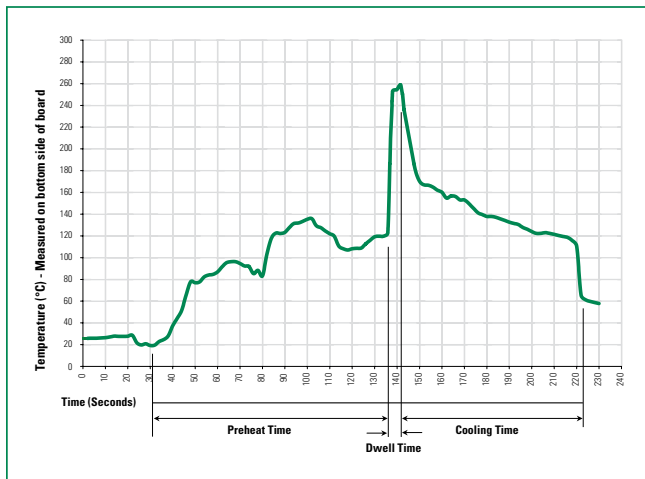


**Note:**  
Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

**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 Dwell Time:	2 to 5 seconds

**Recommended Hand-Solder Parameters:**

Solder Iron Temperature: 350°C +/- 5°C  
Heating Time: 5 seconds max.

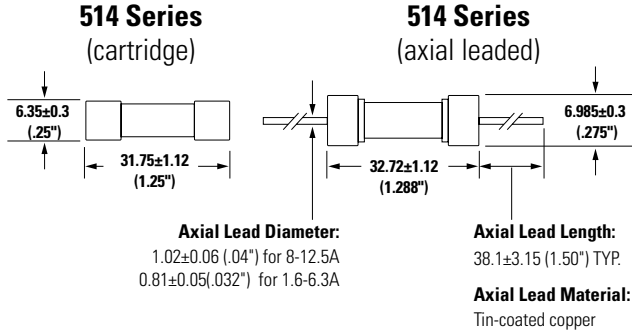
**Note:** These devices are not recommended for IR or Convection Reflow process.

**Product Characteristics**

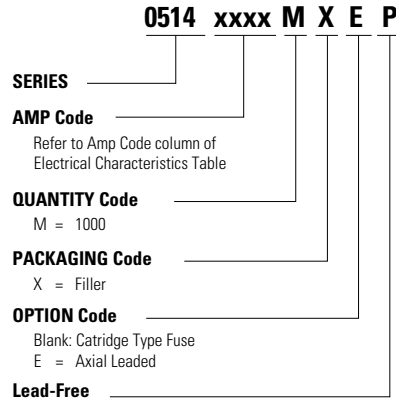
<b>Materials</b>	Body : Ceramic Cap : Nickel Plated Brass Leads: Tin-plated copper
<b>Terminal Strength</b>	MIL-STD-202G, Method 211A, Test condition A
<b>Solderability</b>	Reference MIL-STD-202 Method 208
<b>Product Marking</b>	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency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

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

**Dimensions**



**Part Numbering System**



**Packaging**

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