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

Applications

High energy and power efficient applications.

Agency Approvals

Agency	Certificate number	Ampere Range
c UL us	E10480	1.6A - 12.5A
CE	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 I²t (A²sec)	Agency Approvals	
						c UL us	CE
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

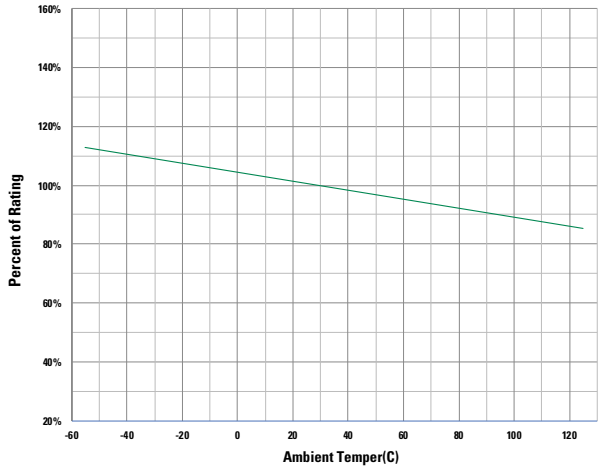
* 25KA@500VAC interrupting rating available for 1.6A

Revised: GD. 11/05/20

Axial Lead & Cartridge Fuses

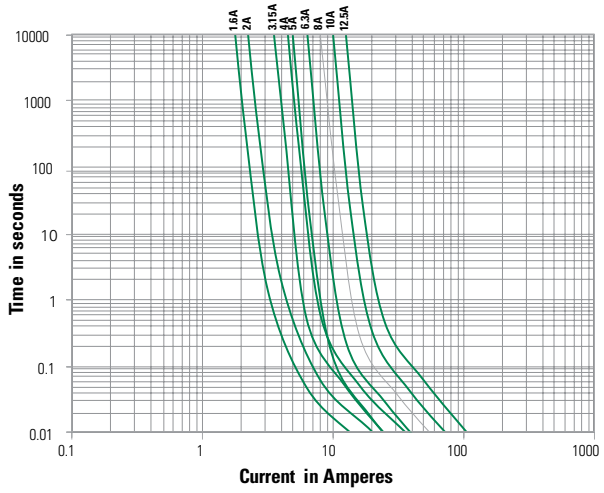
3AB > Fast-Acting > 514 Series

Temperature Re-rating Curve

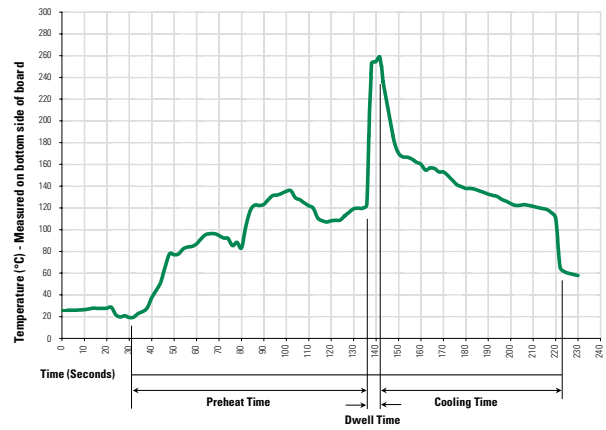


Note:
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

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 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

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

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Axial Lead & Cartridge Fuses

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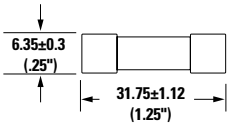
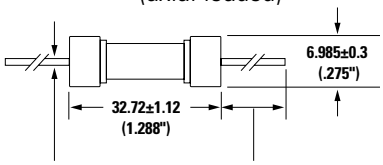
Dimensions

514 Series
(cartridge)



514 Series
(axial leaded)



Axial Lead Diameter:
1.02±0.06 (.04") for 8-12.5A
0.81±0.05(.032") for 1.6-6.3A

Axial Lead Length:
38.1±3.15 (1.50") TYP.

Axial Lead Material:
Tin-coated copper

Part Numbering System

0514 xxxx M X E P

SERIES

AMP Code
Refer to Amp Code column of
Electrical Characteristics Table

QUANTITY Code
M = 1000

PACKAGING Code
X = Filler

OPTION Code
Blank: Catridge Type Fuse
E = Axial Leaded

Lead-Free

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