510 series, Lead-free 3AB Fuse

Description

A 500VAC rated ceramic fuse with remarkable interrupting rating in a compact 6.3x32mm package, which is well suited for circuit protection in high energy applications

Features

- In accordance with underwriter's Laboratories Standard UL 248-14
- Available in cartridge and axial lead form
- RoHS compliant and Lead-free
- Compact form factor of 6.3x32mm

Agency	Agency File Number	Ampere Range
c UL us	E10480	15A-30A

Applications

- Charging Pile Stations

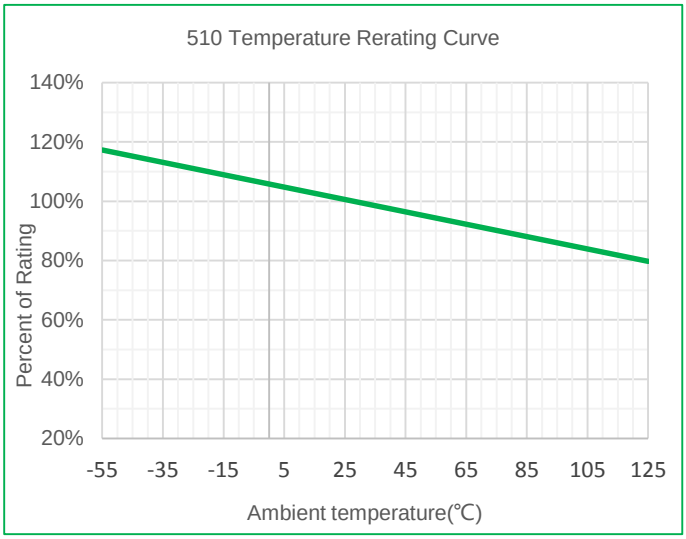
Electrical Characteristics

% of Ampere Rating	Opening Time
100%	60mins, Min
200%	30mins, Max
300%	10sec, Max

Electrical Characteristic Specifications

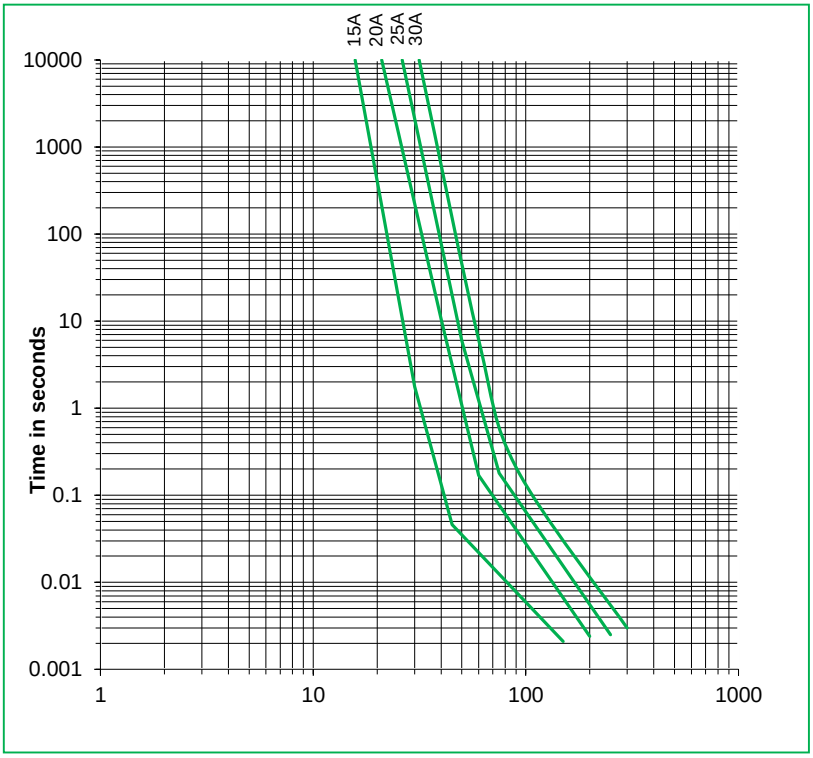
Amp Code	Amp Rating(A)	Max. Voltage Rating(V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2sec)	Agency Approvals c UL us
015.	15	500VAC	2,000A@500VAC	0.0097	45	X
020.	20			0.0056	100	X
025.	25			0.0045	160	X
030.	30			0.0034	280	X

Temperature Rerating Curve

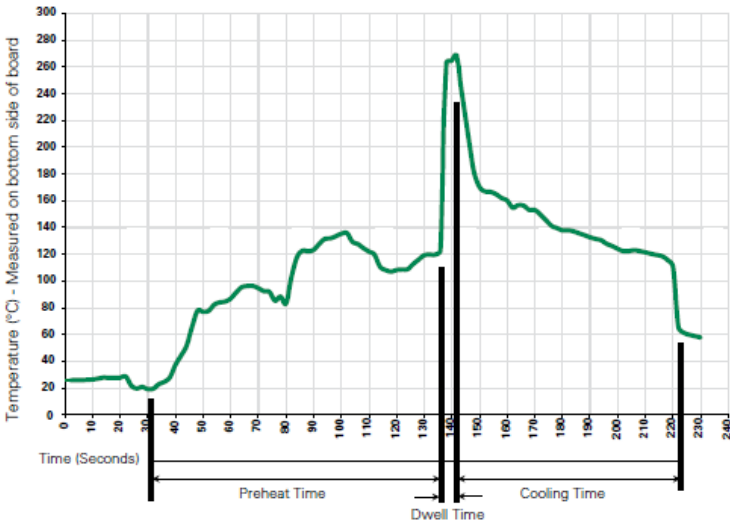


Note:
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation

Average Time Current Curve



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:	2-5 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.

Axial lead & Cartridge Fuse
3AB > 510 Series

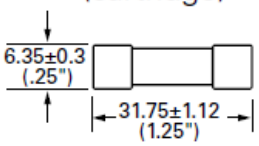
Product Characteristics

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	Cap 1: Brand logo, current and voltage ratings Cap 2: Agency approval marks

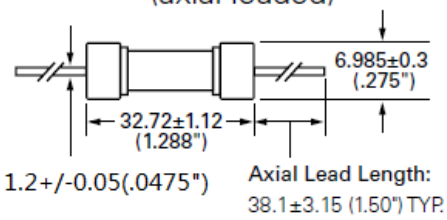
Operating Temperature	-55℃ to +125℃
Thermal Shock	MIL-STD-202G, Method 107G, Test condition B
Vibration	MIL-STD-202G, Method 201A
Moisture Resistance	MIL-STD-202G, Method 103B, Test condition A
Salt Spray	MIL-STD-202G, Method 101E, Test condition B

Dimensions

510 000 P Series
(cartridge)



510 000 EP Series
(axial leaded)



15A: Φ1.0mm lead wire
20A-30A: Φ1.2mm lead wire

Part Numbering System

0510 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: Cartridge Type Fuse
E=Axial Leaded Fuse

P: Lead-Free

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
510Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A