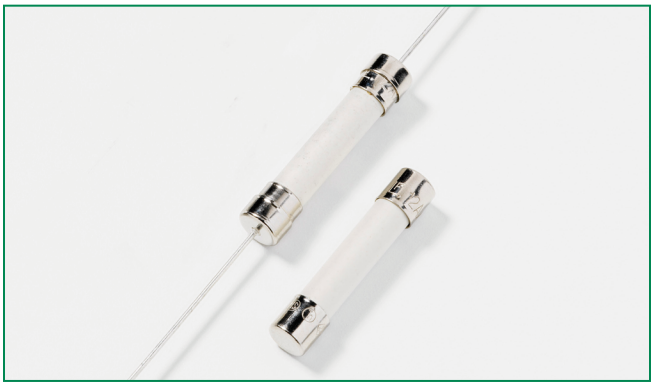
Axial Lead & Cartridge Fuses

3AB 1000VAC / DC High Voltage Fuse

Littelfuse
Expertise Applied | Answers Delivered

508 Series Lead-Free 3AB Fuse



Description

A 1000Vac/Vdc rated ceramic fuse with remarkable interrupting rating in a compact 6.3×32mm 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
- RoHS compliant and Lead-free
- Superior Interrupting rating of 10,000 Amperes
- Compact form factor of 6.3×32mm

Agency Approvals

Agency	Agency File Number	Ampere Range
cULus	Recognised File: E10480	315mA - 1A
CE		315mA - 1A

Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

Electrical Characteristics

% of Ampere Rating	Ampere Rating	Opening Time
100%	315mA - 1A	4 Hours, Minimum
135%		1 Hour, Maximum
200%		120 Seconds, Maximum

Additional Information

Datasheet | **Resources** | **Samples**

Electrical Characteristic

Amp Code	Amp Rating	Voltage Rating	Interrupting Rating	Nominal Cold Resistance (mohms)	Nominal Melting I^2t (A^2 sec.)	Agency Approvals	
						cULus	CE
.315	0.315	1000	10kA @ 1000Vac 10kA @ 1000Vdc	9200	0.071	x	x
.500	0.5	1000		3572	0.259	x	x
001	1	1000		1580	0.449	x	x

* 10KA@600Vac/dc also cURus approved. Add suffix "6." Example: 0508.315MX6P.

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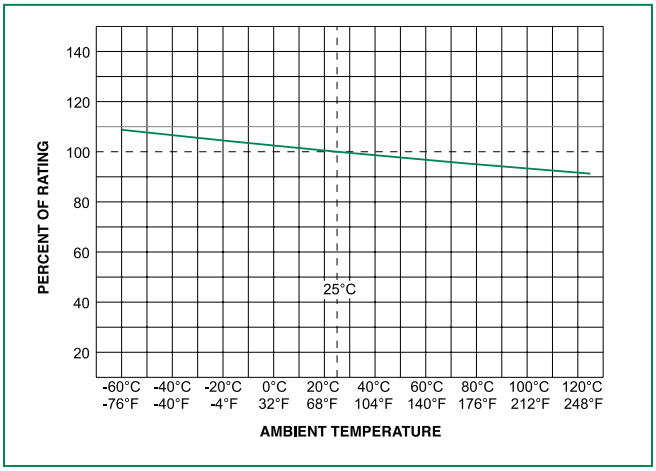
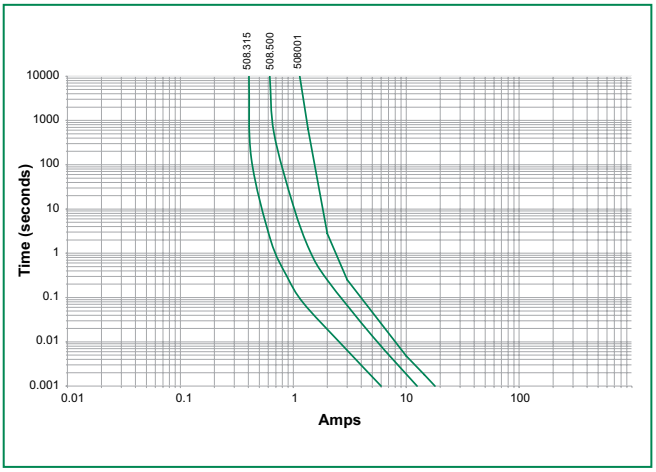
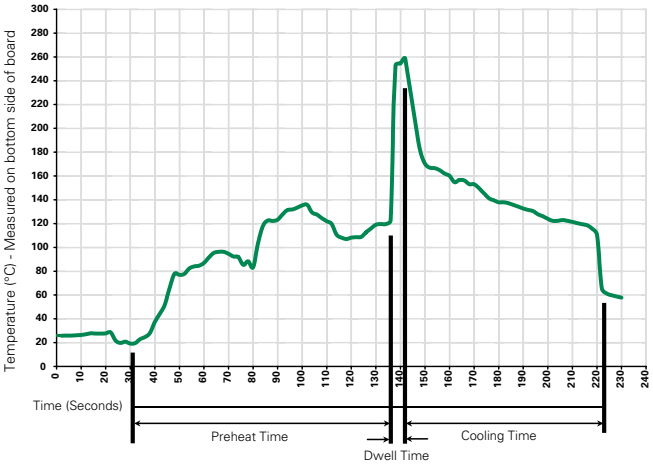
Temperature Rerating Curve



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:	2-5 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 IEC 60127 Second Edition 2003-01 Annex A
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
Humidity	MIL-STD-202G, Method 103B, Test Condition A: High relative humidity (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202G, Method 101E, Test Condition B

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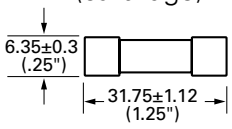
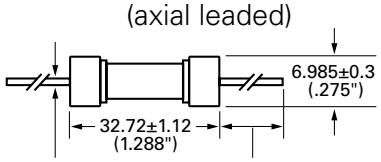
Dimensions

Measurements displayed in millimeters (inches)

508 000P **Series**
(cartridge)



508 000EP **Series**
(axial leaded)



Axial Lead Diameter:
0.81±0.05 (.032")

Axial Lead Material:
Tin-coated copper

Axial Lead Length:
Standard Length:
39.68 (1.56") TYP.
Short Lead Option:
12.70 (0.50") TYP

Part Numbering System

0508 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 Codes
Blank : Cartidage Type Fuse
E : Axial Lead Fuse

Lead-free

Packaging

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

Revised: 12/19/13