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

Description

A 600Vdc rated ceramic fuse with remarkable interrupting rating in a compact 6.3×32mm package, which is well suited for circuit protection in high DC energy applications.

Features

- Recognized to UL/CSA/ NMX 248-1 and UL/CSA/ NMX 248-14
- Available in cartridge and axial lead form.
- Lead-free, Halogen free, and RoHS compliant.
- Superior interrupting rating of 10,000 Amperes.
- Compact form factor of 6.3×32mm.

Agency Approvals

Agency	Certificate Number	Ampere Range
c UL us	E10480	15A - 20A
CE	N/A	15A - 20A

Applications

High energy and power efficient applications.

Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	Opening Time
100%	15A - 20A	3600 sec, Min
135%		3600 sec, Max
200%		120 sec, Max

Additional Information

Datasheet | Resources | Samples | Accessories

For recommended fuse accessories for this product series, see 'Recommended Accessories' section.

Electrical Characteristic by Item

Amp Rating (A)	Amp Code	Voltage Rating (DC)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)	Agency Approvals c UL us
15	015.	600	10KA @ 600VDC	0.008	61	x
16	016.	600		0.008	61	x
20	020.	600		0.006	105	x

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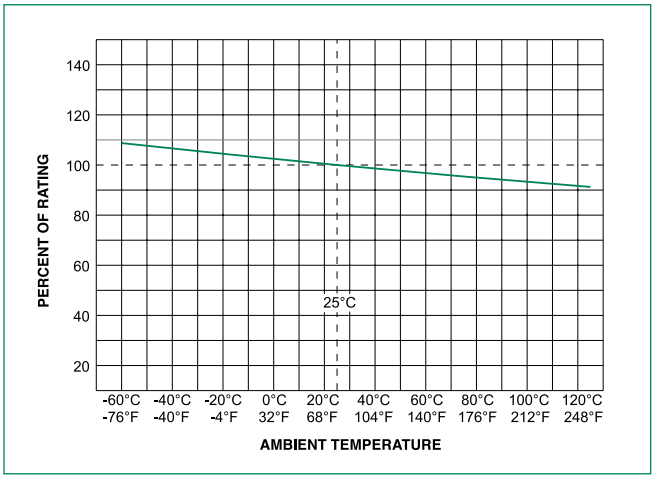
Axial Lead & Cartridge Fuses

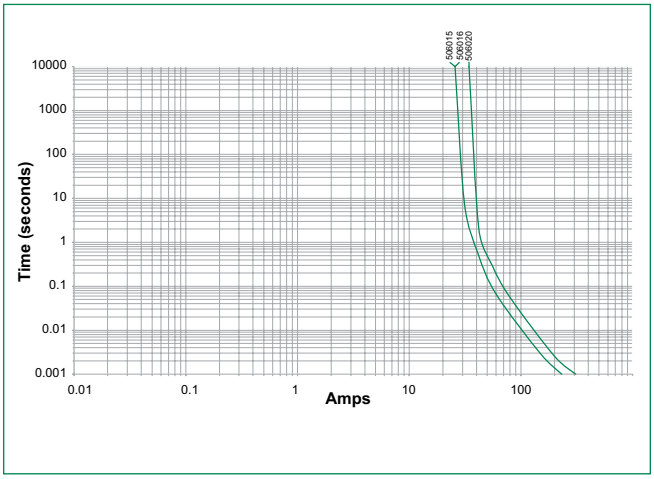
3AB > Fast-Acting > 506 Series

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

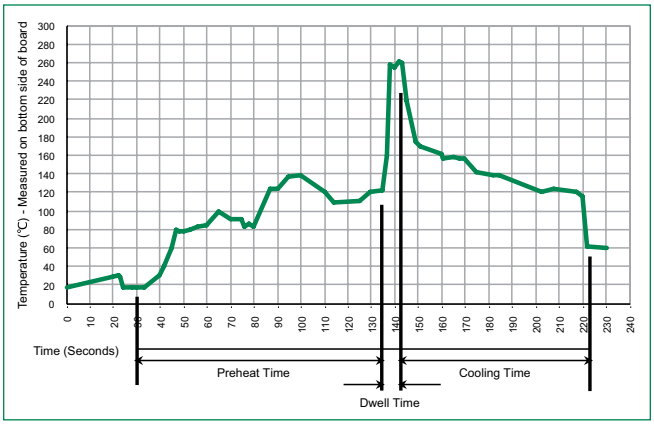


Product Characteristics

Materials	Body : Ceramic Cap : Nickel Plated Brass
Terminal Strength	MIL-STD-202, Method 211, Test condition A
Solderability	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-202, Method 107, Test condition B: (5 cycles -65°C to 125°C)
Vibration	MIL-STD-202, Method 201
Humidity	MIL-STD-202, Method 103, Test condition A: High relative humidity (95%) and Elevated temperature (40°C) for 240 hours
Salt Spray	MIL-STD-202, Method 101, Test condition B

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.

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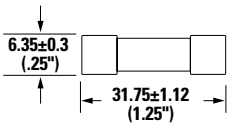
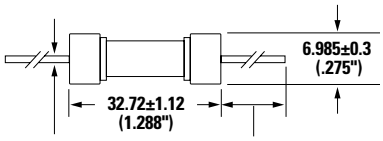
Dimensions

506 000P Series (cartridge)



506 000P Series (axial leaded)



Axial Lead Diameter:
1.2±0.05 (.047")

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

Axial Lead Material:
Tin-coated copper

Part Numbering System

0506 xxxx M X E P

Series — 0506

AMP Code — xxxx
Refer to Amp Code column of Electrical Characteristics Table

Quantity Code — M
M = 1000

Packing Code — X
X = Filler

Option Code — E
E = Axial Leaded

Lead-Free — P

Packaging

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

Recommended Accessories

Accessory Type	Series	Description	Max Application Voltage	Max Application Amperage
Holder	150322	In-Line Fuseholder	500	15
Block	354	Low Profile OMNI-BLOK® Fuse Block	600	30
	359	High Current Screw Terminal Fuse Block		30
Clip	122	High Current Traditional PC Board Fuse Clip	1000	30
	101	Rivet/Eyelet Type Fuse Clip	1000	15

Notes:
1. Do not use in applications above rating.
2. Please refer to fuseholder data sheet for specific re-rating information.
3. Please contact factory for applications greater than the max voltage and amperage shown.

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