

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

Agency Approvals				
Agency	Certificate Number	Ampere Range		
c SL [°] us	E10480	15A - 20A		
Œ	N/A	15A - 20A		

Ampere Rating

15A - 20A

Opening Time

3600 sec, Min

3600 sec, Max

120 sec, Max

Electrical Characteristics for Series

% of Ampere Rating

100%

135%

200%

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.

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• Compact form factor of 6.3×32mm.

Applications

High energy and power efficient applications.

Additional Information







For recommended fuse accessories for this product series, see '<u>Recommended Accessories</u>' section.

Electrical Characteristic by Item Agency Approvals **Nominal Cold Nominal Melting** Amp Rating Interrupting Amp Code Voltage Rating (DC) (A) Rating **Resistance** (Ohms) I2t (A2 sec.) c AL us 600 15 015. 0.008 61 Х 10KA @ 600VDC 16 016. 600 0.008 61 х 020. 600 0.006 20 105 х

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Axial Lead & Cartridge Fuses

Average Time Current Curves

3AB > Fast-Acting > 506 Series

Temperature Re-rating Curve



506015 506016 10000 1000 100 Time (seconds) 10 1 0.1 0.01 0.001 0.01 0.1 10 100 1 Amps

Note:

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

Product Characteristics

Materials	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	MILSTD-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.



Axial Lead & Cartridge Fuses

3AB > Fast-Acting > 506 Series

Dimensions





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	<u>150322</u>	In-Line Fuseholder	500	15
Block	<u>354</u>	Low Profile OMNI-BLOK® Fuse Block	- 600	30
	<u>359</u>	High Current Screw Terminal Fuse Block		30
Clip	<u>122</u>	High Current Traditional PC Board Fuse Clip	1000	30
	<u>101</u>	Rivet/Eyelet Type Fuse Clip	1000	15

Notes:

1. Do not use in applications above rating.

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