

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



#### Agency Approvals

| Agency | Certificate Number | Ampere Range |
|--------|--------------------|--------------|
|        | E10480             | 15A - 20A    |
|        | N/A                | 15A - 20A    |

#### 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  |

#### 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
- Superior interrupting rating of 10,000 Amperes.
- Available in cartridge and axial lead form.
- Compact form factor of 6.3×32mm.
- Lead-free, Halogen free, and RoHS compliant.

#### Applications

High energy and power efficient applications.

#### Additional Information



**Datasheet**



**Resources**



**Samples**



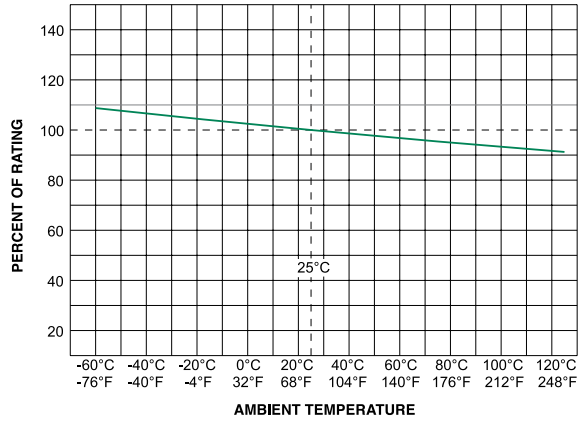
**Accessories**

For recommended fuse accessories for this product series, see '[Recommended Accessories](#)' section.

#### Electrical Characteristic by Item

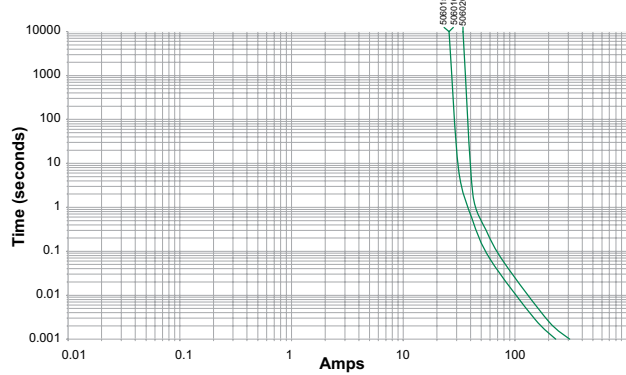
| Amp Rating (A) | Amp Code | Voltage Rating (DC) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec.) | Agency Approvals |
|----------------|----------|---------------------|---------------------|--------------------------------|--------------------------------------------------------|------------------|
| 15             | 015.     | 600                 | 10KA @ 600VDC       | 0.008                          | 61                                                     | x                |
| 16             | 016.     | 600                 |                     | 0.008                          | 61                                                     | x                |
| 20             | 020.     | 600                 |                     | 0.006                          | 105                                                    | x                |

### 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

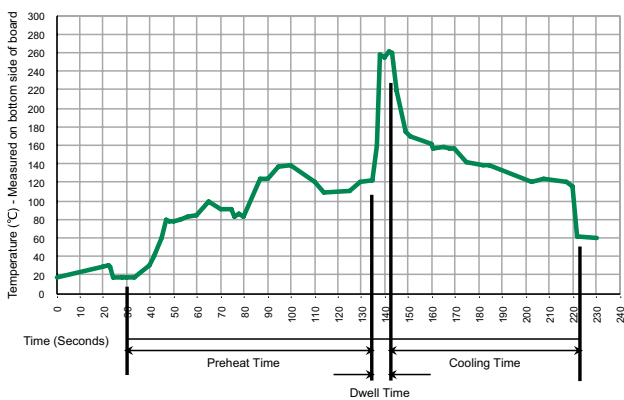


### Product Characteristics

|                          |                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------|
| <b>Materials</b>         | Body : Ceramic<br>Cap : Nickel Plated Brass                                               |
| <b>Terminal Strength</b> | MIL-STD-202, Method 211,<br>Test condition A                                              |
| <b>Solderability</b>     | MIL-STD-202 Method 208                                                                    |
| <b>Product Marking</b>   | Cap1 : Brand logo, current and voltage ratings<br>Cap2 : Series and agency approval marks |

|                              |                                                                                                                             |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b> | -55°C to +125°C                                                                                                             |
| <b>Thermal Shock</b>         | MIL-STD-202, Method 107,<br>Test condition B: (5 cycles -65°C to 125°C)                                                     |
| <b>Vibration</b>             | MIL-STD-202, Method 201                                                                                                     |
| <b>Humidity</b>              | MIL-STD-202, Method 103,<br>Test condition A: High relative humidity (95%)<br>and Elevated temperature (40°C) for 240 hours |
| <b>Salt Spray</b>            | MIL-STD-202, Method 101, Test condition B                                                                                   |

### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

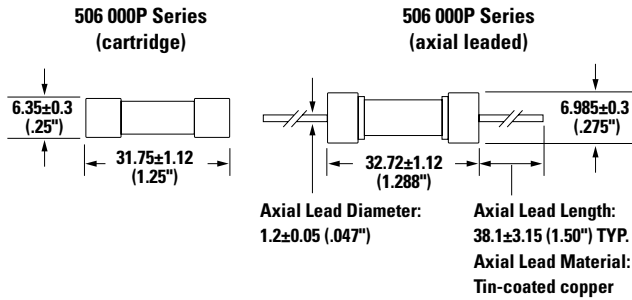
| Wave Parameter                                       | Lead-Free Recommendation          |
|------------------------------------------------------|-----------------------------------|
| Preheat:<br>(Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum:                                 | 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:

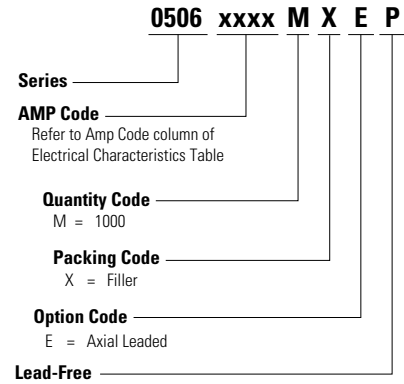
Solder Iron Temperature: 350°C +/- 5°C  
Heating Time: 5 seconds max.

**Note:** These devices are not recommended for IR or Convection Reflow process.

### Dimensions



### Part Numbering System



### Packaging

| Packaging Option  | Packaging Specification | Quantity | Quantity & Packaging Code | Reel Size |
|-------------------|-------------------------|----------|---------------------------|-----------|
| <b>506 Series</b> |                         |          |                           |           |
| 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         | <a href="#">150322</a> | In-Line Fuseholder                          | 500                     | 15                       |
| Block          | <a href="#">354</a>    | Low Profile OMNI-BLOK® Fuse Block           | 600                     | 30                       |
|                | <a href="#">359</a>    | High Current Screw Terminal Fuse Block      |                         | 30                       |
| Clip           | <a href="#">122</a>    | High Current Traditional PC Board Fuse Clip | 1000                    | 30                       |
|                | <a href="#">101</a>    | Rivet/Eyelet Type Fuse Clip                 | 1000                    | 15                       |

#### Notes:

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