

507 Series Lead-Free 3AB Fuse



Description

A 650VDC rated ceramic fuse in a compact 6.3 x 32mm package, which is well suited for circuit protection in high energy applications.

Features

- Rated voltage @ 650VDC
- Available in cartridge and axial lead version
- RoHS compliant and Lead-free

Applications

- High Voltage DC power application
- Inverter
- DC-DC Converter
- High voltage Power Supplies

Agency Approvals

| Agency | Agency File Number | Ampere Range |
|--------|--------------------|--------------|
| | E10480 | 1A~8A |
| | N/A | 1A~8A |

Additional Information



Datasheet



Resources



Samples

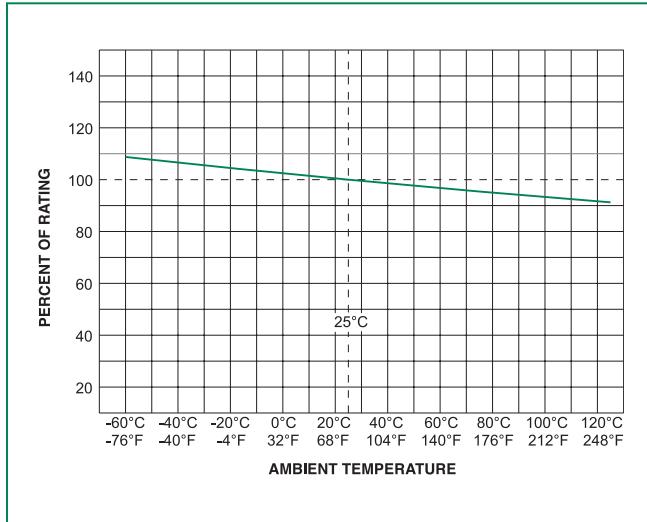
Electrical Characteristics for Series

| % of Ampere Rating | Ampere Rating | Opening Time |
|--------------------|---------------|----------------------|
| 100% | 1A~8A | 4 Hours, Minimum |
| 200% | | 120 Seconds, Maximum |

Electrical Characteristic Specifications by Item

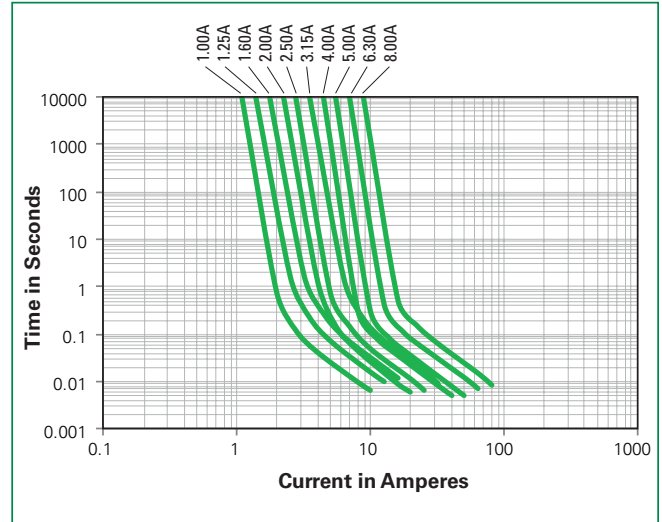
| Amp Code | Ampere Rating (A) | Max. Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I ² t (A ² sec) | Agency Approvals | |
|----------|-------------------|-------------------------|---------------------|--------------------------------|---|------------------|---|
| | | | | | | | |
| 001. | 1 | 650VDC | 150A@650VDC | 0.37 | 0.6 | x | x |
| 1.25 | 1.25 | | | 0.23 | 1.5 | x | x |
| 01.6 | 1.6 | | | 0.165 | 2.9 | x | x |
| 002. | 2 | | | 0.115 | 2.3 | x | x |
| 02.5 | 2.5 | | | 0.083 | 4.1 | x | x |
| 3.15 | 3.15 | | | 0.056 | 9.3 | x | x |
| 004. | 4 | | | 0.055 | 8 | x | x |
| 005. | 5 | | | 0.042 | 12.5 | x | x |
| 06.3 | 6.3 | | | 0.0285 | 29 | x | x |
| 008. | 8 | 0.0207 | 53 | x | x | | |

Temperature Re-rating Curve

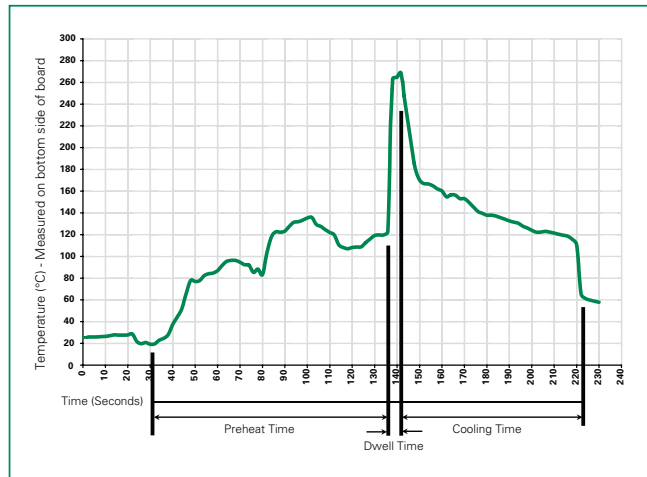


Note:
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



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 to 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.

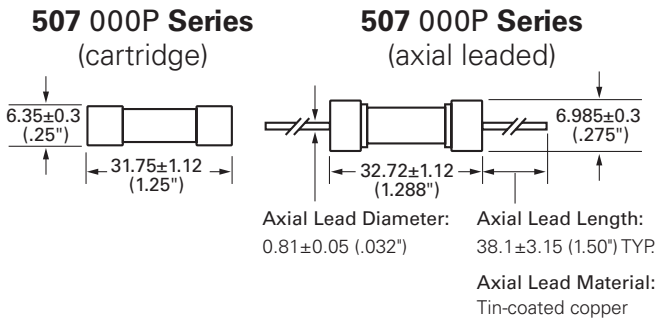
Product Characteristics

| | |
|--------------------------|---|
| Materials | Body : Ceramic Cap : Nickel-plated brass Leads : Tin-plated Copper |
| Terminal Strength | MIL-STD-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 |

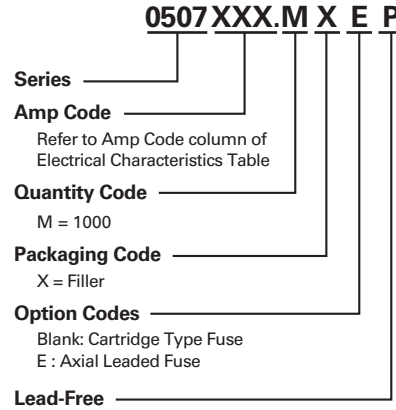
| | |
|-------------------------------|---|
| Operating Temperature: | -55°C to 125°C. |
| Thermal Shock: | MIL-STD-202, Method 107, Test Condition B: (5 cycles -65°C to +125°C) |
| Vibration | MIL-STD-202, Method 201 |
| Humidity | MIL-STD-202, Method 103, Test Condition A: High relative humidity (95%)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

Dimensions

Measurements displayed in millimeters (inches)



Part Numbering System



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Reel Size |
|-------------------|-------------------------|----------|---------------------------|-----------|
| 507 Series | | | | |
| Bulk | N/A | 1000 | MX | N/A |
| Bulk | N/A | 1000 | MXE | N/A |