


606 Series High-Current SMD Fuse




Agency Approvals

| AGENCY | AGENCY FILE NUMBER | AMPERE RANGE |
|---|--------------------|--------------|
|  | E71611 | 40A~63A |

Electrical Characteristics for Series

| % of Ampere Rating | Ampere Rating | Opening Time |
|--------------------|---------------|-------------------|
| 100% | 40A~63A | 1 Hour, Min. |
| 200% | 40A~63A | 120 Seconds, Max. |

Electrical Specifications by Item

| Ampere Rating (A) | Amp Code | Max Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (mOhms) | Nominal Melting I ² t (A ² sec) | Agency Approvals |
|-------------------|----------|------------------------|---------------------------------|---------------------------------|---|---|
| | | | | | |  |
| 40 | 040. | 500Vac | 2000A @ 500Vac 10KA @ 250Vac | 1.70 | 2500 | X |
| 50 | 050. | | | 1.31 | 4800 | X |
| 63 | 063. | | | 1.06 | 7000 | X |

Description

The 606 series is the smallest cartridge fuse rated at 500VAC with 40A to 63A current ratings and a 2,000A@500Vac interrupting rating. It is designed for supplemental branch circuit (AC input) over-current protection or other stages of power conversion where high voltage is present. This series fuse is RoHS compliant and 100% Pb free.

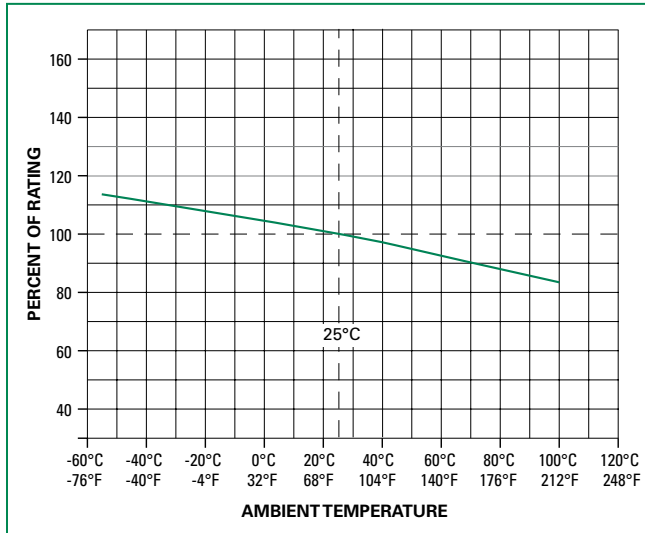
Features

- Rated voltage @ 500VAC
- 40A~63A rating available
- Available in through hole version
- RoHS compliant and Lead-free

Applications

- Uninterruptible Power Supply (UPS)
- Three-phase AC input for charging pile/ Electric Vehicle Supply Equipment (EVSE)
- Power conversion equipment such as inverters, rectifiers, etc.
- Motor protection in elevator systems

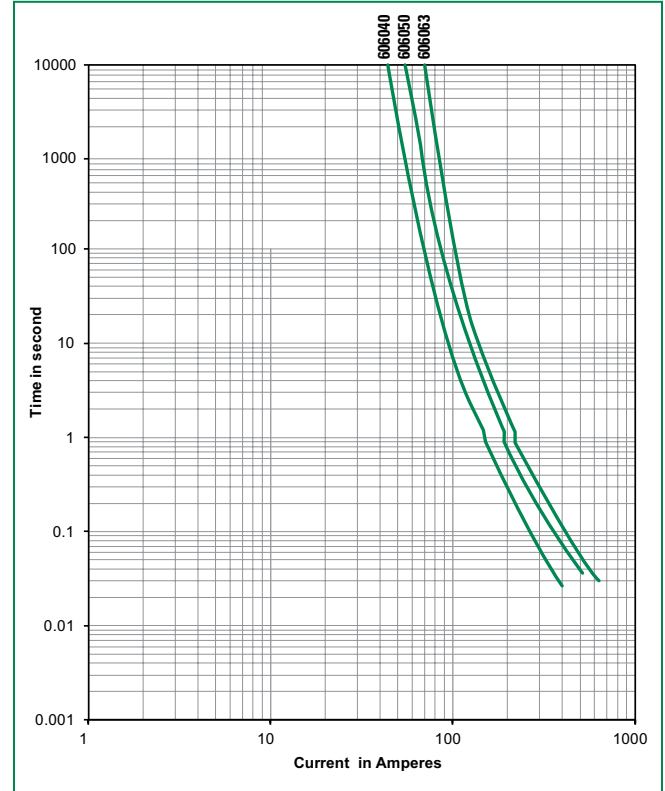
Temperature Re-rating Curve



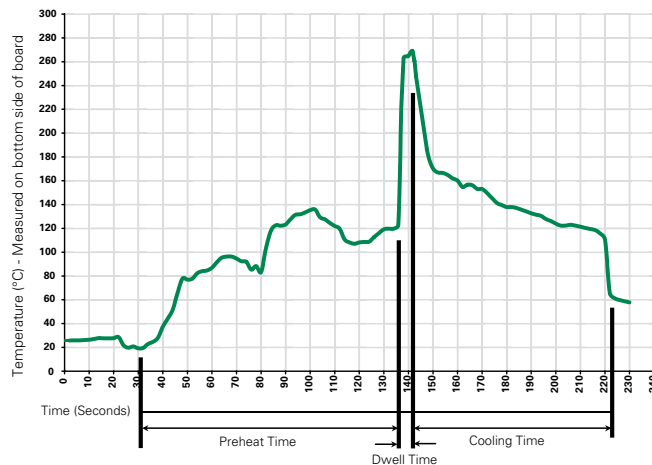
Note:

1. 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: | 2-5 seconds |

Recommended Hand-Solder Parameters:

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

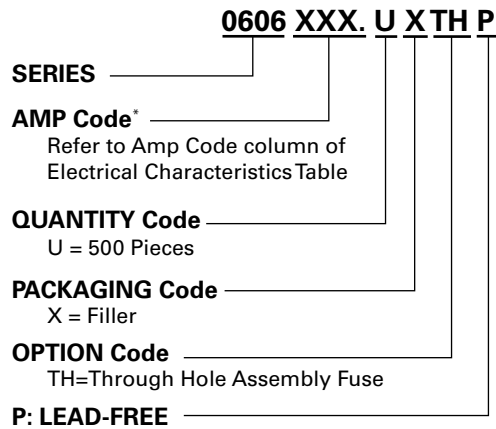
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

| | |
|--------------------------|---|
| Materials | Body: Melamine Caps: Copper alloy Leads: Tin-plated copper alloy |
| Terminal Strength | MIL-STD-202, Method 211 Test condition A |
| Solderability | Reference MIL-STD-202 method 208 |
| Product Marking | Cap1: Brand logo, Current and Voltage ratings Cap2: Series and agency approval Marks |

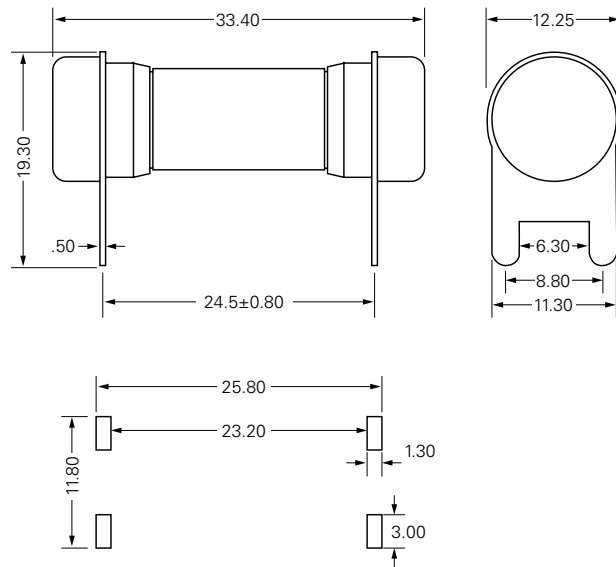
| | |
|------------------------------|---|
| Operating Temperature | -55°C to +125°C |
| Thermal Shock | MIL-STD-202, Method 107 Test condition B (5 cycles -65°C to 125°C) |
| Vibration | MIL-STD-202, Method 201 |
| Moisture Resistance | MIL-STD-202, Method 103 Test condition A |
| Salt Spray | MIL-STD-202, Method 101 Test condition B |

Part Numbering System



Part Numbering System

Unit in mm



Recommended Drilling Pattern

4oz (140µm) minimum Cu layer for 40A and 50A
6oz (210µm) minimum Cu layer for 63A

Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Reel Size |
|------------------|-------------------------|----------|---------------------------|-----------|
| Tray | N/A | 500 | UXTH | N/A |

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