

383 Series

TR5® Time-Lag Fuse



Description

The 383 series are TR5® time-lag 300V rated fuses and designed in accordance to IEC 60127-3.

Features and Benefits

- Halogen free, Lead-free and RoHS compliant
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to EN/J60127-1 and EN/J60127-3
- CE Mark indicates compliance with Low-Voltage and RoHS Directives

Additional Information



Resources



Accessories



Samples

Applications

- Electronic Ballast

Electrical Characteristics for Series

| % of Ampere Rating | Opening Time | |
|--------------------|----------------------------|----------------------------|
| | 1A - 6.3A | 8A - 10A |
| 150% | 1 Hour, Min. | 1 Hour, Min. |
| 210% | 2 Minutes, Max. | 300 s, Max. |
| 275% | 400 ms, Min.; 10 s, Max. | 1 s, Min.; 20 s, Max. |
| 400% | 150 ms, Min.; 3 s, Max. | 150 ms, Min.; 3 s, Max. |
| 1000% | 20 ms, Min. ; 150 ms, Max. | 20 ms, Min. ; 150 ms, Max. |

Agency Approvals

| Agency | Agency File Number | Ampere Range |
|--------|--------------------------------------|-----------------------|
| VDE | 40022712 | 4A - 5A |
| PS | NBK040322-JP1021 NBK200122-JP1021 | 1A - 5A 6.3A - 10A |
| UL/US | E67006 | 1A - 10A |
| UK/CA | N/A | 1A - 10A |

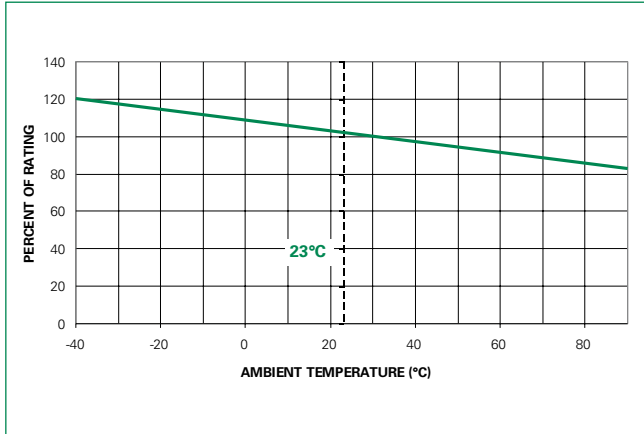
Electrical Characteristics Specifications by Item

| Amp Code | Rated Current | Max Voltage Rating | Breaking Capacity | Nominal Cold Resistance (Ohms) | Voltage Drop 1.0xI _N max. (mV) | Power Dissipation 1.5xI _N max. (mW) | Melting Integral 10xI _N max. (A ² s) | Agency Approvals | | | | |
|----------|---------------|--------------------|---------------------------|--------------------------------|---|--|--|------------------|-----|----|-------|----|
| | | | | | | | | UK/CA | VDE | PS | UL/US | CE |
| 1100 | 1.00 A | 300 V | 100A@300VAC 50A@320VAC | 0.0625 | 100 | 400 | 4.85 | X | - | X | X | X |
| 1125 | 1.25 A | 300 V | | 0.0500 | 95 | 465 | 6.88 | X | - | X | X | X |
| 1160 | 1.60 A | 300 V | | 0.0377 | 90 | 490 | 12.67 | X | - | X | X | X |
| 1200 | 2.00 A | 300 V | | 0.0280 | 85 | 670 | 17.80 | X | - | X | X | X |
| 1250 | 2.50 A | 300 V | | 0.0215 | 80 | 750 | 29.69 | X | - | X | X | X |
| 1315 | 3.15 A | 300 V | | 0.0176 | 75 | 900 | 45.35 | X | - | X | X | X |
| 1400 | 4.00 A | 300 V | | 0.0138 | 70 | 1200 | 72.00 | X | X | X | X | X |
| 1500 | 5.00 A | 300 V | 50A@320VAC 100A@250VAC | 0.0108 | 65 | 1250 | 121.25 | X | X | X | X | X |
| 1630 | 6.30 A | 300 V | | 0.0076 | 65 | 1400 | 148.84 | X | - | X | X | X |
| 1800 | 8.00 A | 300 V | | 0.0059 | 63 | 1600 | 233.60 | X | - | X | X | X |
| 2100 | 10.00 A | 300 V | | 0.0042 | 57 | 1600 | 365.00 | X | - | X | X | X |

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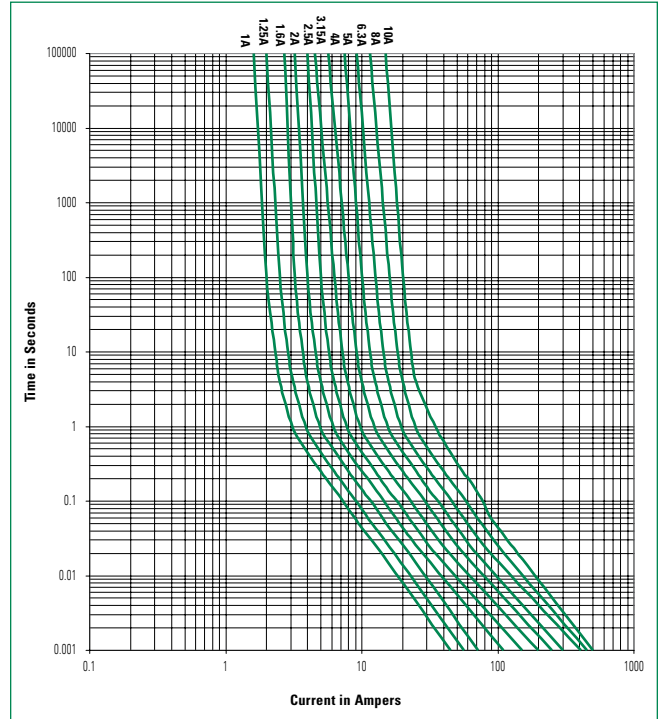
TR5® Time-Lag Fuse

Temperature Re-rating Curve

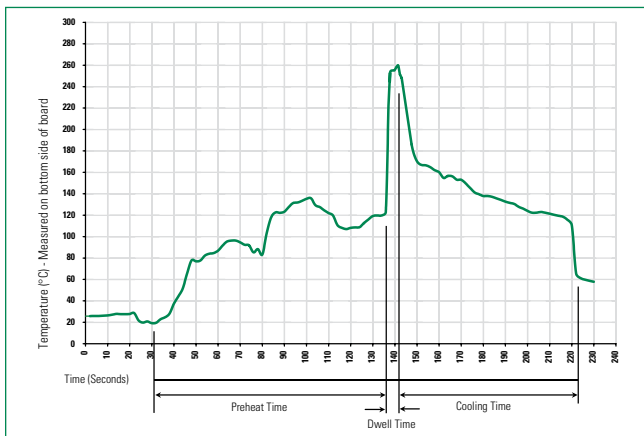


Note:
 1. Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

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.

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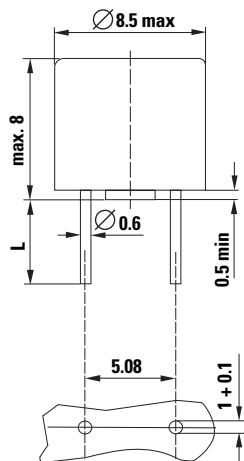
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Product Characteristics

| | |
|----------------------------------|--|
| Materials | Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0 Round Pins: Copper, Tin-plated |
| Lead Pull Strength | 10 N (IEC 60068-2-21) |
| Solderability | 260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron) |
| Soldering Heat Resistance | 260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron) |

| | |
|------------------------------|--|
| Operating Temperature | -40°C to +85°C (consider re-rating) |
| Climatic Category | -40°C to +85°C /21 days (IEC 60068-1,-2-1,-2-2,-2-78) |
| Stock Conditions | +10°C to +60°C RH ≤ 75% yearly average, without dew, maximum value for 30 days~95% |
| Vibration Resistance | 24 cycles at 15 min. each (IEC 60068-2-6) 10 - 60 Hz at 0.75 mm amplitude 60 - 2000 Hz at 10 g acceleration |

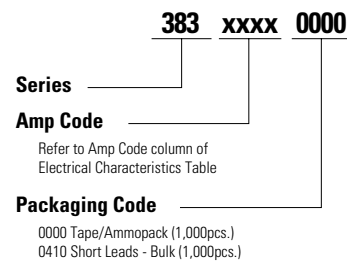
Dimensions



Long Leads (L=18.8mm ±0.3)

Short Leads (L=4.3mm ±0.3)

Part Numbering System



Packing

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|------------------|-------------------------|----------|---------------------------|--------------|
| 383 Series | | | | |
| Tape & Ampopack | N/A | 1,000 | 0000 | N/A |
| Short Leads | N/A | 1,000 | 0410 | N/A |

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