

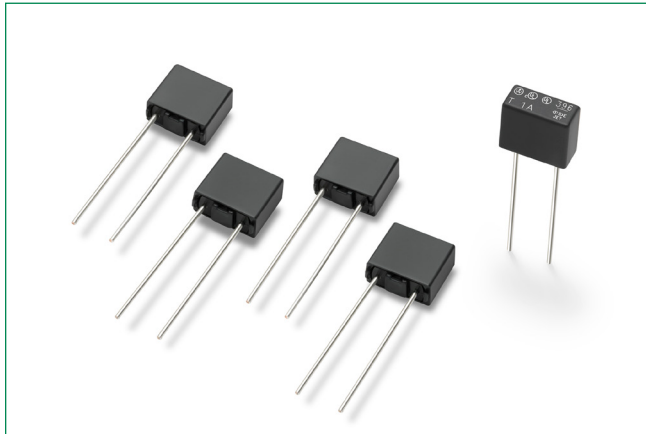


THE DATASHEET OF
39608000440



396 Series

TE5® Time-Lag Fuse



Description

The 396 Series TE5® fuses are time-lag type, 125V rated, and are designed in accordance to UL 248-14.

Features & Benefits

- RoHS-compliant, Lead-free and Halogen-free
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Available from 0.05 A to 6.3 A
- Listed to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to DENAN's Appendix 3 for the Japanese Market

Additional Information



Resources



Accessories



Samples

Electrical Characteristics

| % of Ampere Rating | Opening Time |
|--------------------|------------------|
| 200% | 60 Seconds, Max. |

Applications

- Battery chargers
- Consumer Electronics
- Power supplies
- Industrial controllers

Agency Approvals

| Agency | Agency File/Certificate Number | Ampere Range |
|--------|--------------------------------|----------------|
| UL | E67006 | 0.05 A - 6.3 A |
| UL | E67006 | 0.05 A - 6.3 A |
| PS E | NBK010721-JP1021 | 1 A - 5 A |

Electrical Characteristics

| Amp Code | Rated Current | Voltage Rating | Breaking Capacity | Nominal Cold Resistance (Ohms) ¹ | Voltage Drop 1.0xI _N max. (mV) | Power Dissipation 1.0xI _N max. (mW) | Melting Integral 10xI _N max. (A ² s) | Agency Approvals | | |
|----------|---------------|----------------|-------------------|---|---|--|--|------------------|----|------|
| | | | | | | | | UL | UL | PS E |
| 0050 | 50 mA | 125 V | 100 A @ 125 VAC | 12.5000 | 900 | 45 | 0.011 | x | x | - |
| 0063 | 63 mA | 125 V | | 8.7900 | 800 | 50 | 0.017 | x | x | - |
| 0080 | 80 mA | 125 V | | 6.0090 | 700 | 55 | 0.02 | x | x | - |
| 0100 | 100 mA | 125 V | | 3.8400 | 600 | 60 | 0.04 | x | x | - |
| 0125 | 125 mA | 125 V | | 2.9000 | 550 | 70 | 0.05 | x | x | - |
| 0160 | 160 mA | 125 V | | 1.7700 | 480 | 80 | 0.09 | x | x | - |
| 0200 | 200 mA | 125 V | | 1.2000 | 390 | 80 | 0.14 | x | x | - |
| 0250 | 250 mA | 125 V | | 0.7500 | 350 | 90 | 0.26 | x | x | - |
| 0315 | 315 mA | 125 V | | 0.5450 | 300 | 95 | 0.32 | x | x | - |
| 0400 | 400 mA | 125 V | | 0.3750 | 250 | 100 | 0.58 | x | x | - |
| 0500 | 500 mA | 125 V | | 0.2470 | 220 | 110 | 0.86 | x | x | - |
| 0630 | 630 mA | 125 V | | 0.1850 | 210 | 135 | 1.15 | x | x | - |
| 0800 | 800 mA | 125 V | | 0.1250 | 160 | 130 | 1.92 | x | x | - |
| 1100 | 1.00 A | 125 V | | 0.0868 | 155 | 155 | 3.25 | x | x | x |
| 1125 | 1.25 A | 125 V | | 0.0666 | 145 | 185 | 4.69 | x | x | x |
| 1160 | 1.60 A | 125 V | | 0.0502 | 130 | 210 | 6.76 | x | x | x |
| 1200 | 2.00 A | 125 V | | 0.0398 | 125 | 250 | 11.90 | x | x | x |
| 1250 | 2.50 A | 125 V | | 0.0297 | 120 | 300 | 17.81 | x | x | x |
| 1315 | 3.15 A | 125 V | 0.0216 | 110 | 350 | 26.29 | x | x | x | |
| 1400 | 4.00 A | 125 V | 0.0164 | 110 | 400 | 38.40 | x | x | x | |
| 1500 | 5.00 A | 125 V | 0.0112 | 95 | 475 | 71.25 | x | x | x | |
| 1630 | 6.30 A | 125 V | 0.0087 | 95 | 570 | 144.87 | x | x | - | |

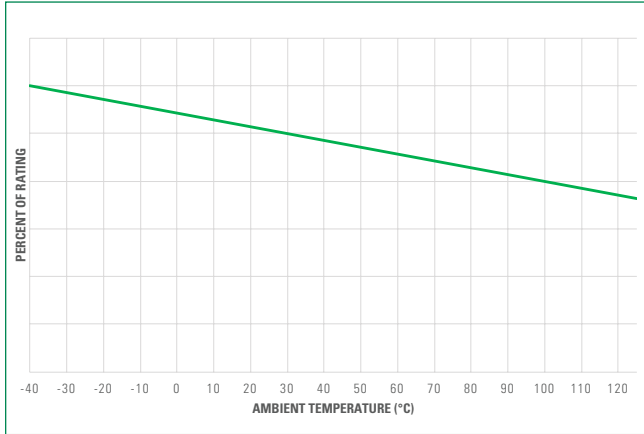
Notes:

1. Resistance is measured at 10% of rated current, 25°C.

396 Series

TE5® Time-Lag Fuse

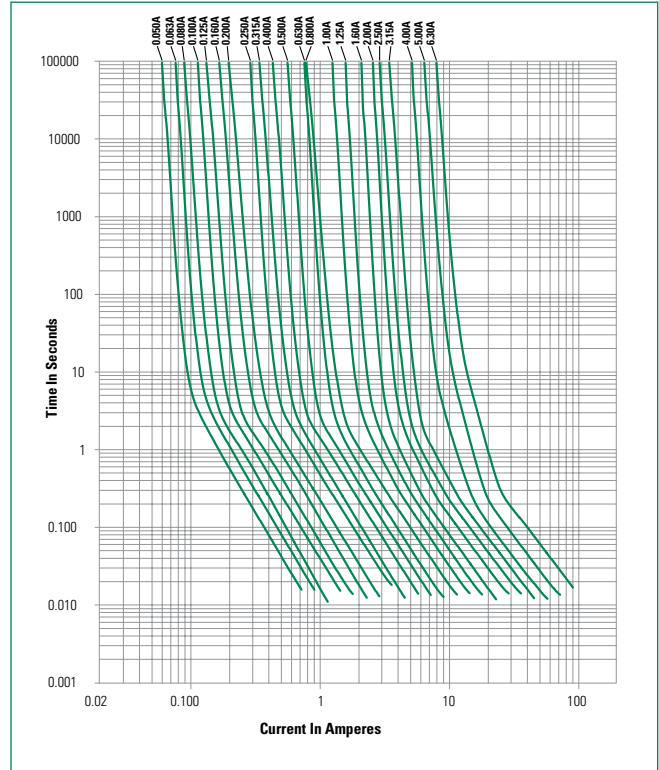
Temperature Re-rating Curve



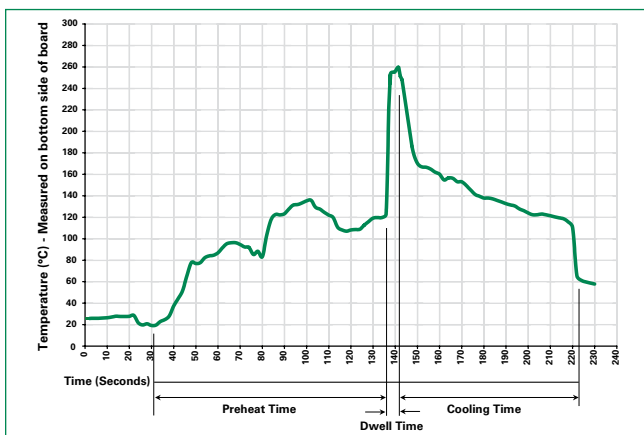
Note:

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.

396 Series

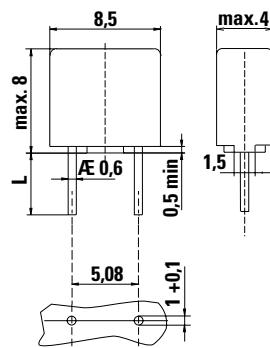
TE5® Time-Lag Fuse

Product Characteristics

| | |
|----------------------------------|---|
| Materials | Base/Cap: 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) |

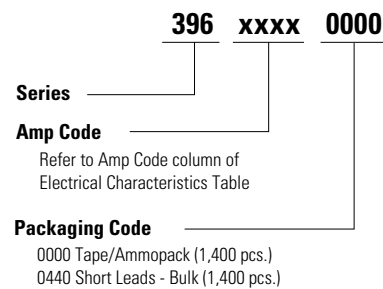
| | |
|------------------------------|--|
| Operating Temperature | -40°C to +125°C (Consider re-rating) |
| Climatic Category | -40°C to +85°C/21 days (IEC 60068-1,-2-1,-2-2,-2-78) |
| Stock Conditions | +10°C to +60°C RH ≤ 75% yearly average, without dew, maximum value for 30 days-95% |
| Vibration Resistance | 24 cycles at 15 min. each (IEC 60068-2-6) 10 - 60Hz at 0.75mm amplitude 60 - 2000Hz at 10g acceleration |

Dimensions



Holes in PCB
Long Leads (L=18.8mm)
Short Leads (L=4.3mm)

Part Numbering System



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-------------------|-------------------------|----------|---------------------------|--------------|
| 396 Series | | | | |
| Tape & Ammopack | N/A | 1,400 | 0000 | N/A |
| Short Leads | N/A | 1,400 | 0440 | N/A |

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