

Time Delay | 0.063x0.032 inch Thick Film Chip Fuses

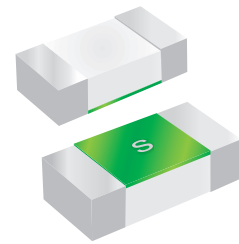
0603TD Series



0603TD Series are the fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

Features

- High inrush current withstanding capability
- Ceramic and glass construction
- Halogen free, lead free and RoHS compliant
- Ultra high I²t values
- Excellent environmental integrity
- One time positive disconnect
- AEC-Q200 Automotive Grade Certified



Applications

- Flat panel displays and televisions
- Automotive infotainment and ECU
- Computer servers
- Portable electronics
- Mobile device chargers

Electrical Characteristics

| Amp Rating | % of Amp Rating | Opening Time |
|------------|-----------------|-------------------|
| 1~8A | 100% | 4 Hours Min. |
| 1~8A | 200% | 1~60 Seconds Max. |
| 1~8A | 250% | 5 Seconds Max. |

Specifications

| Part Number | Ampere Rating (A) | Voltage Rating (V) | Interrupting Rating | Typical Cold Resistance (Ohms) | Typical Melting I ² t (A ² Sec) | Typical Voltage Drop (V) | Marking Code |
|-------------|-------------------|--------------------|---------------------|--------------------------------|---|--------------------------|--------------|
| 0603TD-1A | 1.00 | 32 | 32V@50A | 0.250 | 0.011 | 0.335 | B |
| 0603TD-1.5A | 1.50 | 32 | 32V@50A | 0.150 | 0.045 | 0.270 | H |
| 0603TD-2A | 2.00 | 32 | 32V@50A | 0.078 | 0.115 | 0.160 | K |
| 0603TD-2.5A | 2.50 | 32 | 32V@50A | 0.049 | 0.140 | 0.145 | L |
| 0603TD-3A | 3.00 | 32 | 32V@50A | 0.035 | 0.280 | 0.130 | O |
| 0603TD-3.5A | 3.50 | 32 | 32V@50A | 0.028 | 0.500 | 0.130 | R |
| 0603TD-4A | 4.00 | 32 | 32V@50A | 0.018 | 0.600 | 0.120 | S |
| 0603TD-5A | 5.00 | 32 | 32V@50A | 0.014 | 1.900 | 0.110 | T |
| 0603TD-6A | 6.00 | 32 | 32V@50A | 0.011 | 2.300 | 0.110 | V** |
| 0603TD-7A | 7.00 | 32 | 32V@50A | 0.0095 | 3.000 | 0.090 | X** |
| 0603TD-8A | 8.00 | 32 | 32V@50A | 0.0070 | 4.500 | 0.080 | Z** |

- DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)
- DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees
- Typical Pre-arcing I²t are measured at 10In Current.

Choice fuse for surge application (USB charger etc.), make sure the I²t of fuse is 4 times than surge.

**Different with other ratings, the color of glass cover of 6A, 7A and 8A is BLUE color

Specifications are subject to change without notice. Application testing is strongly recommended.

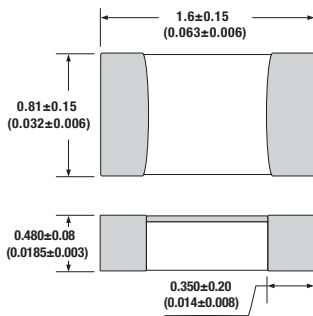
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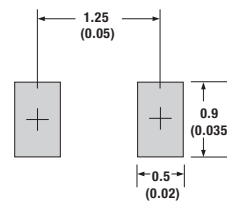
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Dimension

Unit: mm/inch



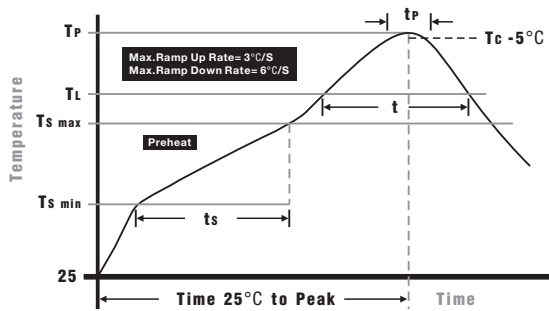
Pad layout



Packaging

- Quantity: 5,000pcs
- 8mm wide tape on 178mm(7 inch) diameter reel - specification EIA Standard 481.

Soldering Parameters

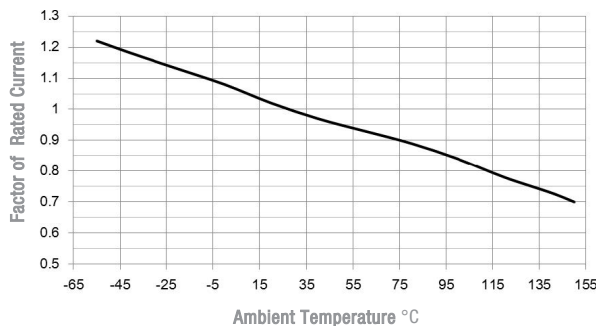


Wave Soldering: 260°C, 10 seconds max.
Infrared Reflow: 260°C, 30 seconds max.

IR Reflow Profile

| | |
|---|------------------|
| Preheat Heat | |
| Temperature min (T _{Smin}) | 150°C |
| Temperature max (T _{Smax}) | 200°C |
| Time (T _{Smin} to T _{Smax}) (t _s) | 60 - 120 seconds |
| Average ramp-up rate (T_{Smax} to T_P) | |
| | 3°C/second max. |
| Liquidous temperature (T_L) | |
| Time at liquidous (t _L) | 60 - 150 seconds |
| Peak temperature (T_P) | |
| | 260+0/-5°C |
| Time within 5°C of actual peak Temperature (t_p) | |
| | 10 - 30 seconds |
| Average ramp-down rate (T_P to T_{Smax}) | |
| | 6°C/second max. |
| Time 25 °C to peak temperature | |
| | 8 minutes max. |

Temperature Derating Curve

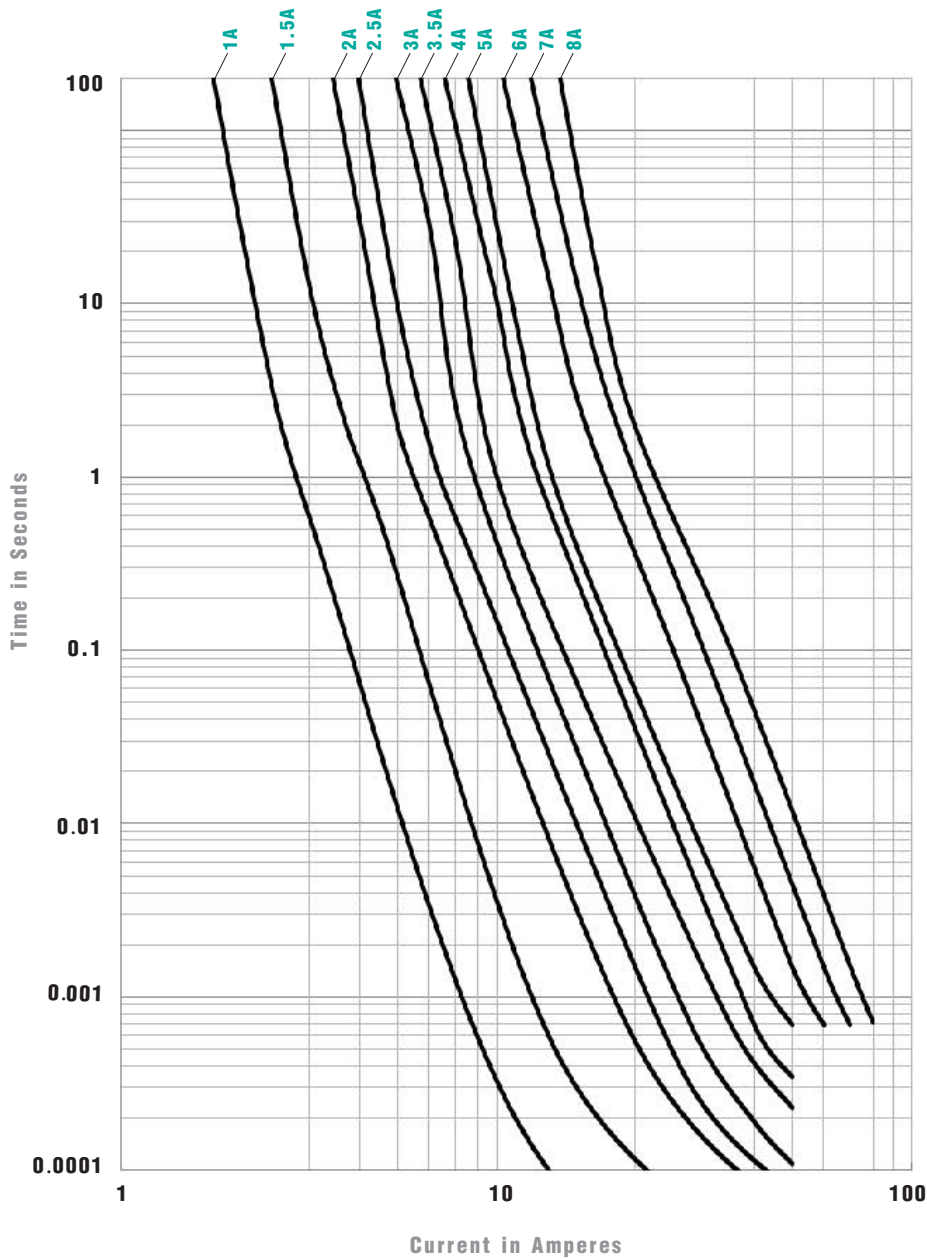


- Normal ambient temperature: 23+/-3°C
- Operating temperature: -55 ~ 150°C, with proper correction factor applied

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Thick Film Chip Fuses 0603TD Series

Average Time Current Curves



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