

0603TD-Rxxx Series

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

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

- Compatible with reflow and wave solder
- Excellent environmental integrity
- One time positive disconnect
- Lead Free and Halogen free material

Electrical Characteristics

Rated Current	1.0In	2.5In	3.0In	4.0In
250mA	4 hour minimum			5 sec maximum
500mA	4 hour minimum		5 sec maximum	
750mA	4 hour minimum	0.1sec - 5.0 sec		

Specifications

Part No.	Rated Voltage DC	Rated Current (A)	Breaking Capacity (A)	Typical Cold. Resistance (mOhms)	Typical Voltage Drop (mV)	Typical Pre- Arcing I ² t (A ² Sec)	Alpha Mark
0603TD-R250	32V	0.25	50A	2300	850	0.0006	D
0603TD-R500	32V	0.5	50A	580	460	0.003	F
0603TD-R750	32V	0.75	50A	400	450	0.02	G

• 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 25 degrees

• Typical Pre-arcing I²t are measured at 10In Current.

Dimension









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Soldering Parameters



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

Temperature Derating Curve

IR Reflow Profile

Preheat Heat Temperature min (Tsmin) Temperature max(Tsmax) Time (Tsmin to Tsmax) (ts)	150°C 200°C 60 -120 seconds		
Average ramp-up rate (Tsmax to Tp)	3°C/second max.		
Liquidous temperature (TL) Time at liquidous (tL)	217°C 60 - 150 seconds		
Peak temperature(Tp)	260°C		
Time within 5°C of actual peak Temperature (tp)	30 seconds		
Average ramp-down rate (Tp to Tsmax)	6°C/second max.		
Time 25 °C to peak temperature	8 minutes max.		

Normal ambient temperature: 23+/-3 $^{\rm C}$ Operating temperature: -55 \sim 150 $^{\rm C}$, with proper correction factor applied



Ambient Temperature °C

Packaging

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



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Average Time Current Curves



Current in Amperes

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