

# INDIVIDUAL SPECIFICATION SHEET

**Product Name:** 0603 Time Delay SMD Fuse**Part Number:** F06T3.5**Revision:** B**Dongguan TLC Electronic Technology Co., LTD**

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Rev.	Effective Date	Changed Contents
A	2020-9-27	New Release
B	2021-4-7	Update Specifications

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## Description

F06T 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.

Rated Current	1.0In	2.5In
1A~8A	4 hour minimum	5 sec maximum

## Features

- High inrush current withstanding capability
- AEC-Q200 Automotive Grade Certified
- Compatible with reflow and wave solder
- Ceramic and glass construction
- Excellent environmental integrity
- One time positive disconnect
- Lead Free and Halogen free material

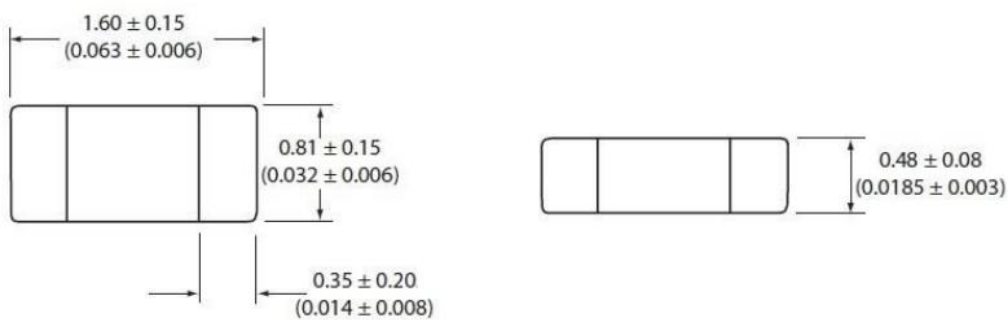
## Specifications

Specification							
Part No.	Rated Voltage	Rated Current (A)	Breaking Capacity (A) 1	Typical Cold. Resistance (mOhms) <sup>2</sup>	Typical Voltage Drop (mV)	Typical Pre-Arcing I <sup>2</sup> t (A <sup>2</sup> Sec) <sup>3</sup>	Alpha Mark
	DC						
F06T3.5	32V	3.5	50A	23.8	130	0.5	R

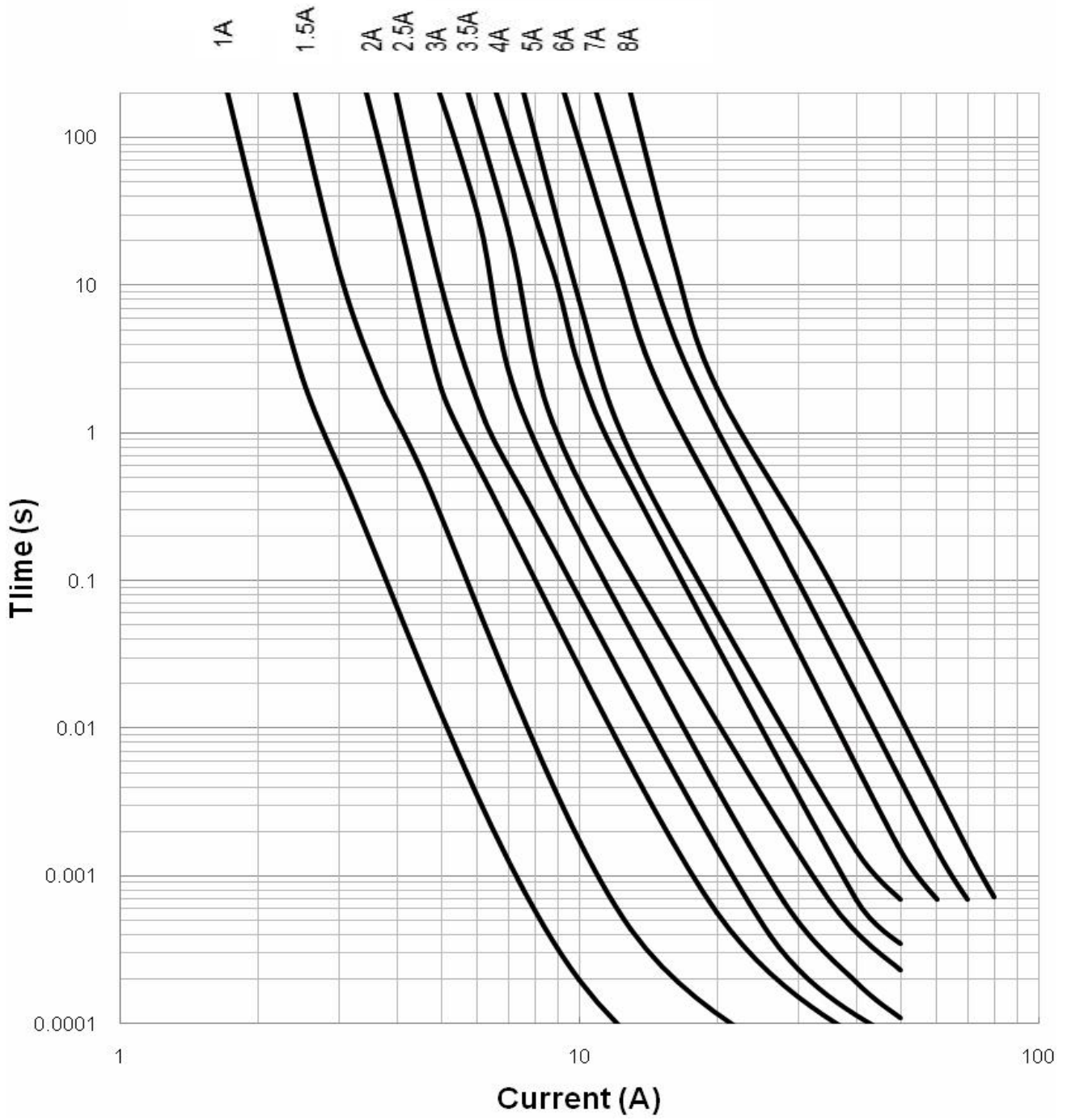
1. DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)
2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees
3. Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current.

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

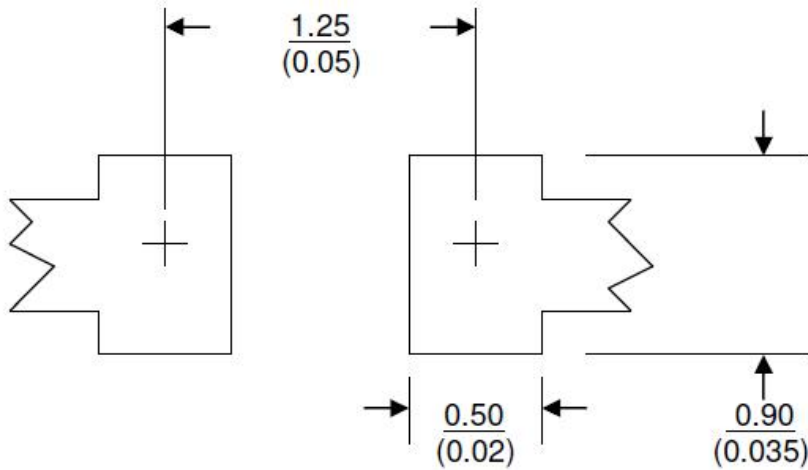
**Dimension** Drawing not to scale (Unit: mm/inch)



### Time Current Curve



### Recommended land pattern

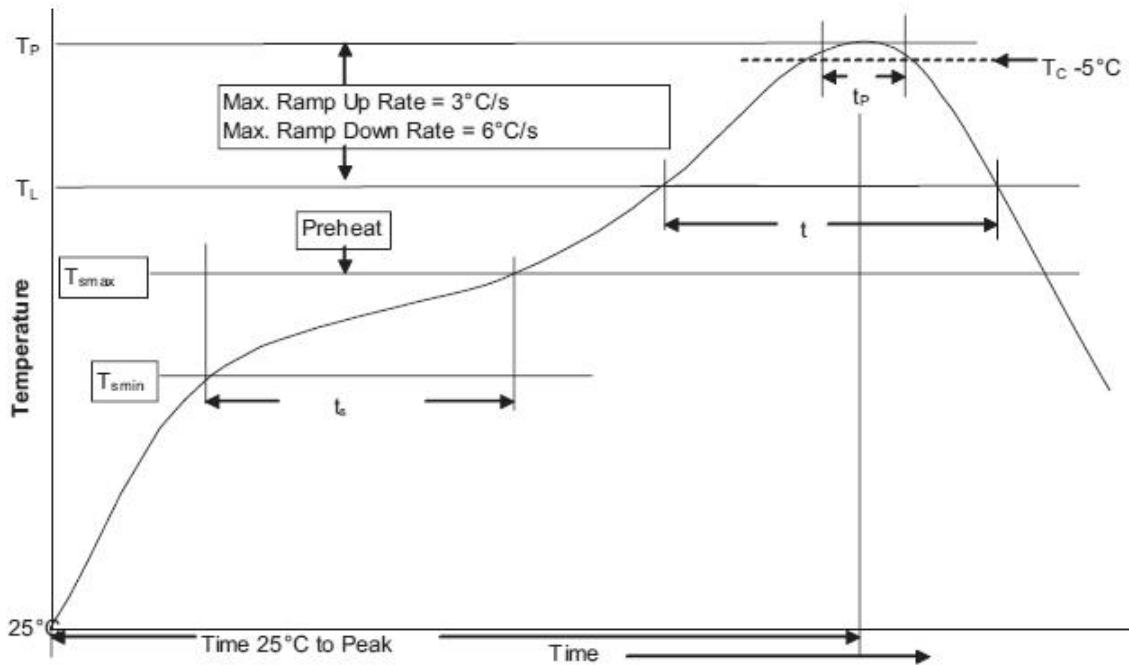


Unit: mm/inches

### Soldering method

- Wave solder
  - Reservoir temperature: 260°C
  - Time in reservoir: 10 seconds maximum
- Infrared reflow
  - Temperature: 260°C
  - Time: 30 seconds maximum

### Solder reflow profile



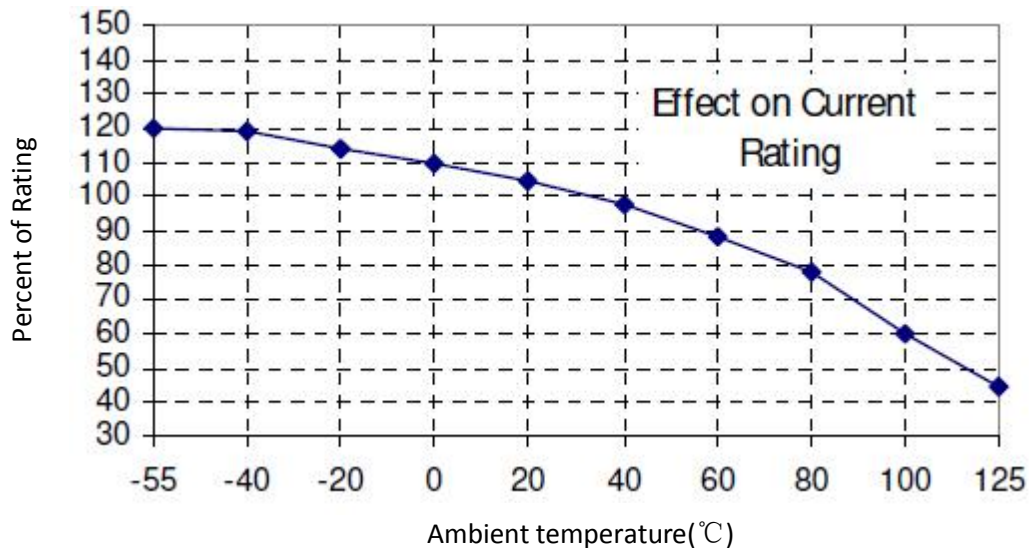
Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min. ( $T_{smin}$ )	150°C
	• Temperature max. ( $T_{smax}$ )	200°C

• 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 ( $t_L$ )	217°C 60 - 150 Seconds
Peak package body temperature ( $T_P$ )	260°C
Time ( $t_P$ ) within 5°C of the specified classification temperature ( $T_C$ )	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 ~ 125°C, with proper correction factor applied



### Package

5000 fuses on 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481.

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