

# INDIVIDUAL SPECIFICATION SHEET

**Product Name:** 1206 Slow Blow SMD Fuses

**Part Number:** :F12T2.5

**Revision:** B



**Dongguan TLC Electronic Technology Co., LTD**

No.18,5th GaoLi Road,TangXia Town,DongGuan,GuangDong,P.R China 523710

TEL: 86-0769-3892 0511

FAX: 86-0769-8793 2077

Http: [www.tlcet.com.cn](http://www.tlcet.com.cn)

| Rev. | Effective Date | Changed Contents     |
|------|----------------|----------------------|
| A    | 2020-9-25      | New Release          |
| B    | 2021-3-10      | Update Spedfications |
|      |                |                      |

The individual specification sheet are the property of Dongguan TLC electronic technology Co.,Ltd and shall not be copied or used as commercial purposes without permission.

PREPEARED BY

APPROVED BY




## Description

F12T 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.

| Electrical Characteristics |             |            |               |       |              |
|----------------------------|-------------|------------|---------------|-------|--------------|
| Rated Current              | 1.0In       | 2.5In      | 3.0In         | 3.5In | 10.0In       |
| 2.5A                       | 4 hour min. | 5 sec max. | 0.1sec – 3sec | -     | 0.2ms – 20ms |

## 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   | Rated       | Breaking Capacity (A) <sup>1</sup> | 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 |
|               | Voltage | Current (A) |                                    |   |                           |   |            |
|               | DC      |             |                                    |   |                           |   |            |
| F12T2.5       | 72V     | 2.5         | 50A                                | 75  | 240                       | 0.68  | O          |

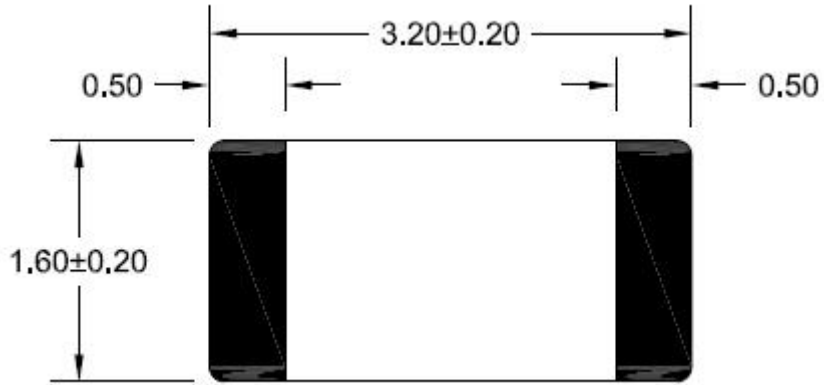
1. DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)
2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C
3. Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current

Choice fuse for surge application (USB charger etc.), make sure the I<sup>2</sup>t of fuse is 4 times than surge. Specifications are subject to change without notice. Application testing is strongly recommended.

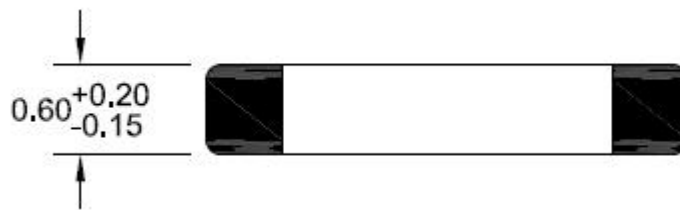
**Dimension**

Drawing not to scale (Unit: mm)

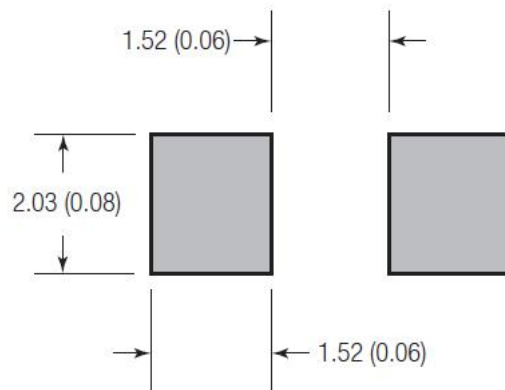
Top view



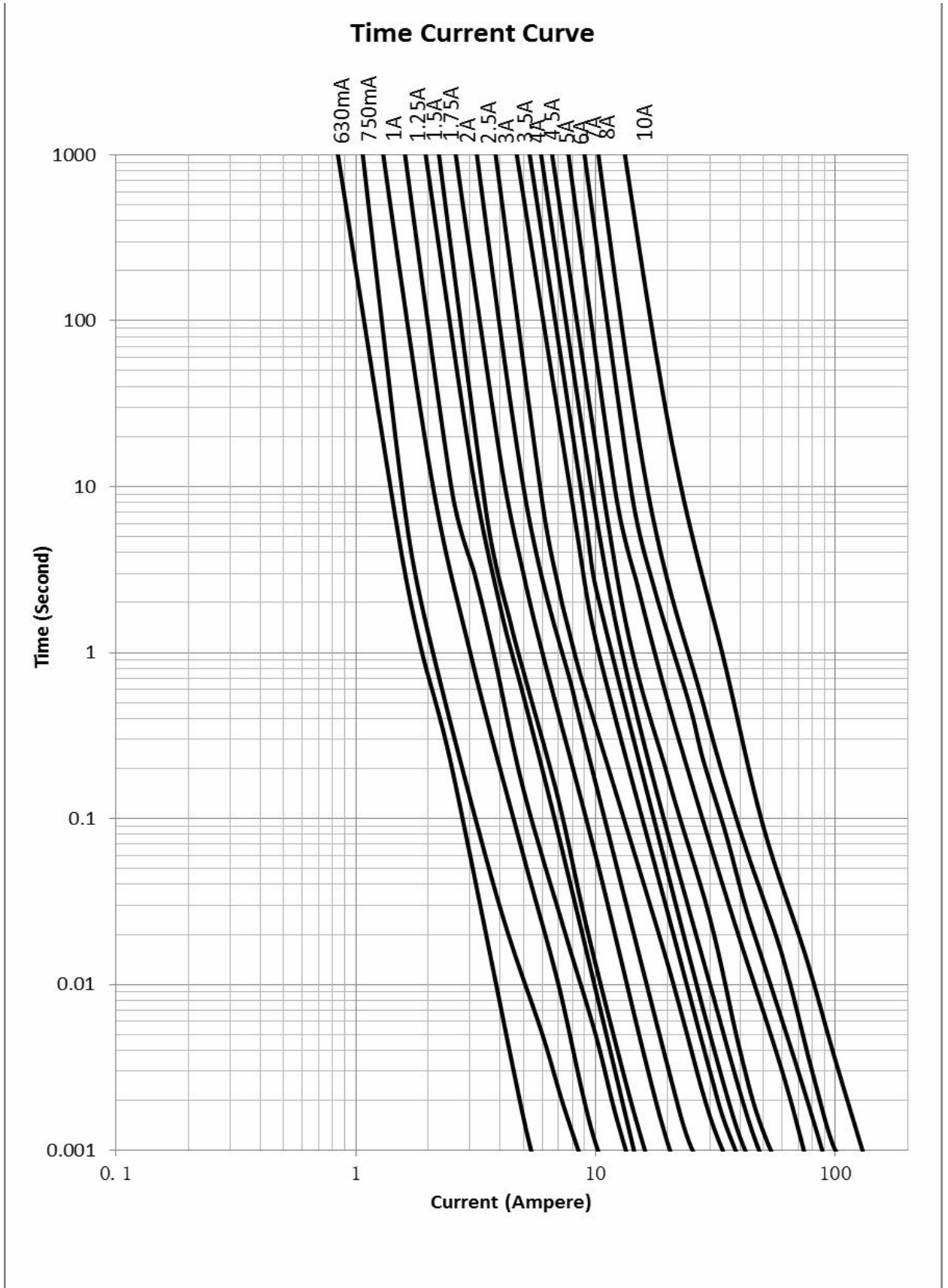
Side view



**Recommended land pattern**

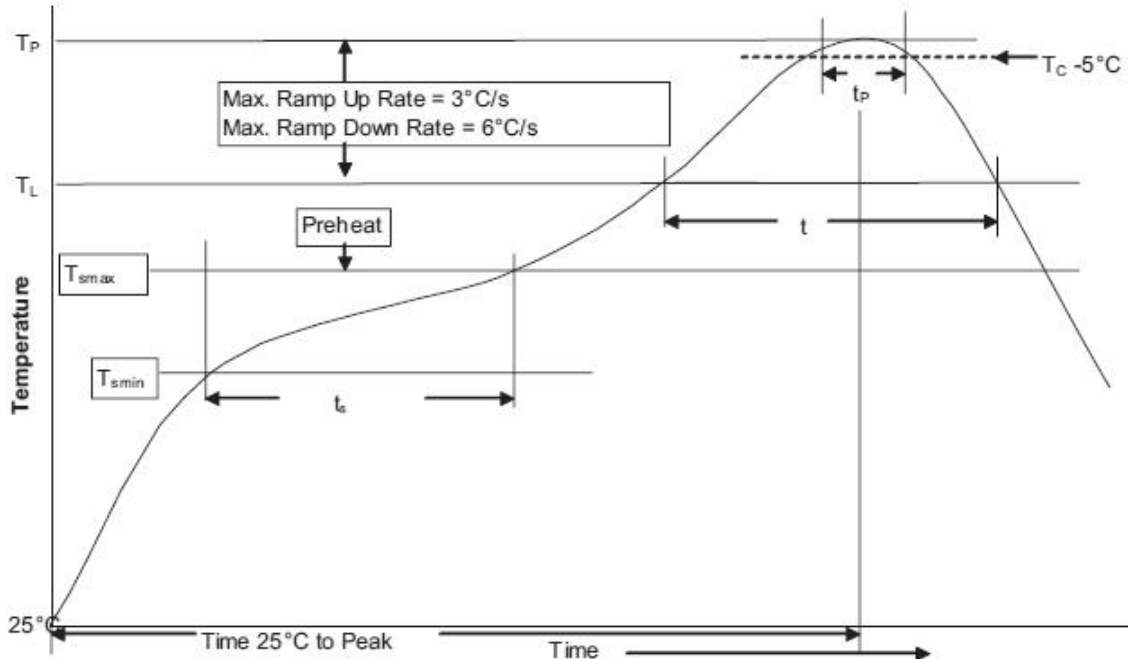


Unit: mm(inch)



**Soldering method**

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

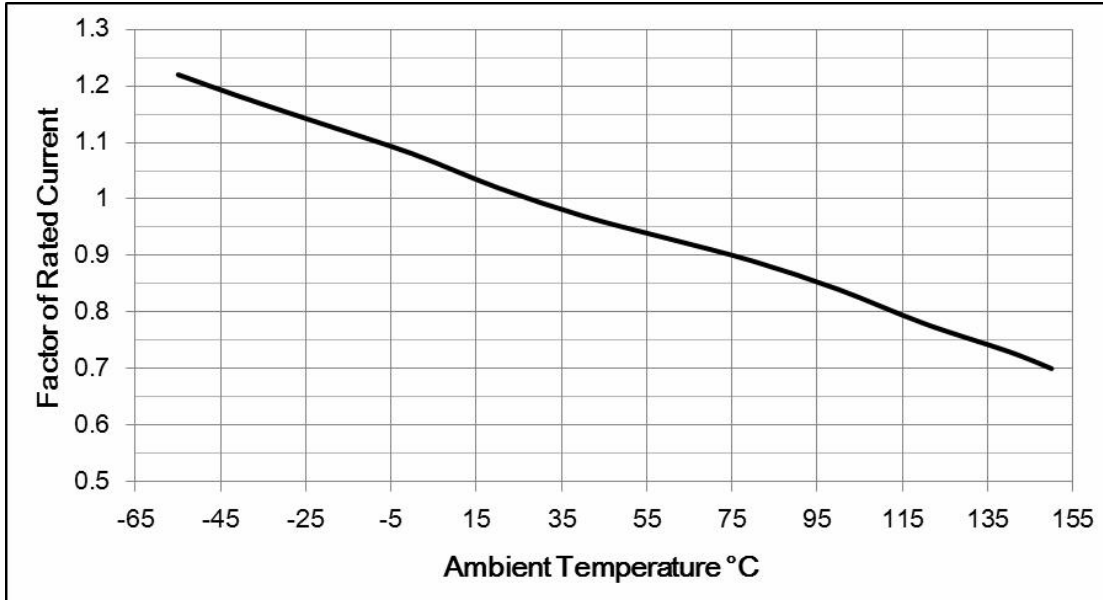
**Solder reflow profile**


| 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 ( $T_L$ )   |   | 217°C                |
| Time at liquidous ( $t_L$ )   |   | 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**

3000 fuses on 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481.

--- End of Document ---

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Surface Mount Fuses](#) category:*

*Click to view products by [TLC manufacturer](#):*

Other Similar products are found below :

[FHC20402ADTP](#) [NFVC6125S0R50TRF](#) [SFT-125MA](#) [TF16SN2.00TTD](#) [7010.9810.57](#) [FCC16501ABTP](#) [FCC16102ABTP](#) [FHC16322ADTP](#)  
[0308.250UR](#) [0308.375UR](#) [0308.500UR](#) [0308.750UR](#) [0308001.UR](#) [030801.5UR](#) [FCC16202ABTP](#) [F0603G0R03FNTR](#) [SKY87604-12](#)  
[SKY87604-11](#) [SKY87604-13](#) [3404.0110.22](#) [7010.9962.63](#) [R451003.L](#) [R451.500L](#) [R451001.L](#) [3-103-119](#) [3-103-123](#) [122 30A 36V](#) [SGB401](#)  
[SGB075](#) [S1206-FC-1.0A](#) [S1206-S-2.0A](#) [CFS06V3TR63](#) [F06F3](#) [F12F7](#) [F12T20](#) [F06F0.25](#) [F06T0.5](#) [F12F2.5](#) [F12F0.25](#) [F06F1](#) [F06F8](#)  
[F06T1](#) [F12F10](#) [F06F2](#) [F06F0.75](#) [F06F6](#) [F06F1.5](#) [F06T2](#) [F12F3.5](#) [F12T5](#)