

INDIVIDUAL SPECIFICATION SHEET

Product Name: 1206 Slow Blow SMD Fuses

Part Number: :F12T6

Revision:B



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| Rev. | Effective Date | Changed Contents |
|------|----------------|----------------------|
| A | 2020-11-26 | New Release |
| B | 2021-3-11 | Update Spedfications |
| | | |

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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 |
| 6A | 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

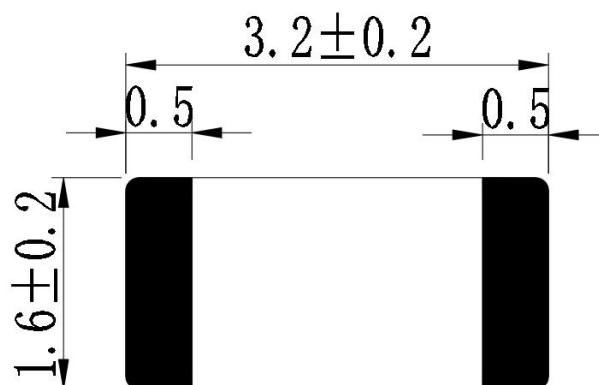
| Specification | | | | | | | |
|---------------|---------------|---------------|------------------------------------|--|---------------------------|---|------------|
| Part No. | Rated Voltage | Rated Current | Breaking Capacity (A) ¹ | Typical Cold Resistance (mOhms) ² | Typical Voltage Drop (mV) | Typical Pre-Arcing I ² t (A ² Sec) ³ | Alpha Mark |
| | DC | (A) | | | | | |
| F12T6 | 32V | 6 | 50A@32Vdc | 16 | 140 | 12 | F |

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

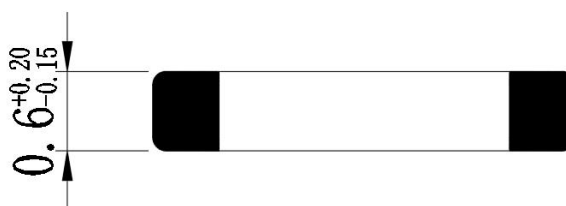
Dimension

Drawing not to scale (Unit: mm)

Top View

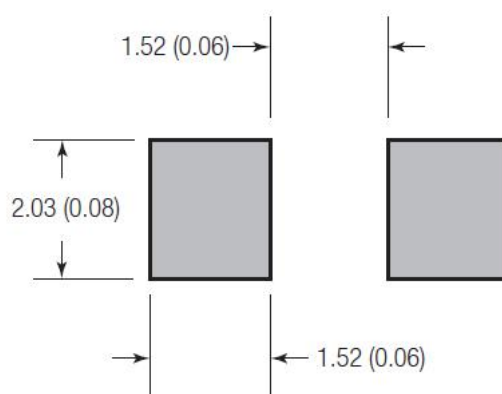


Side View

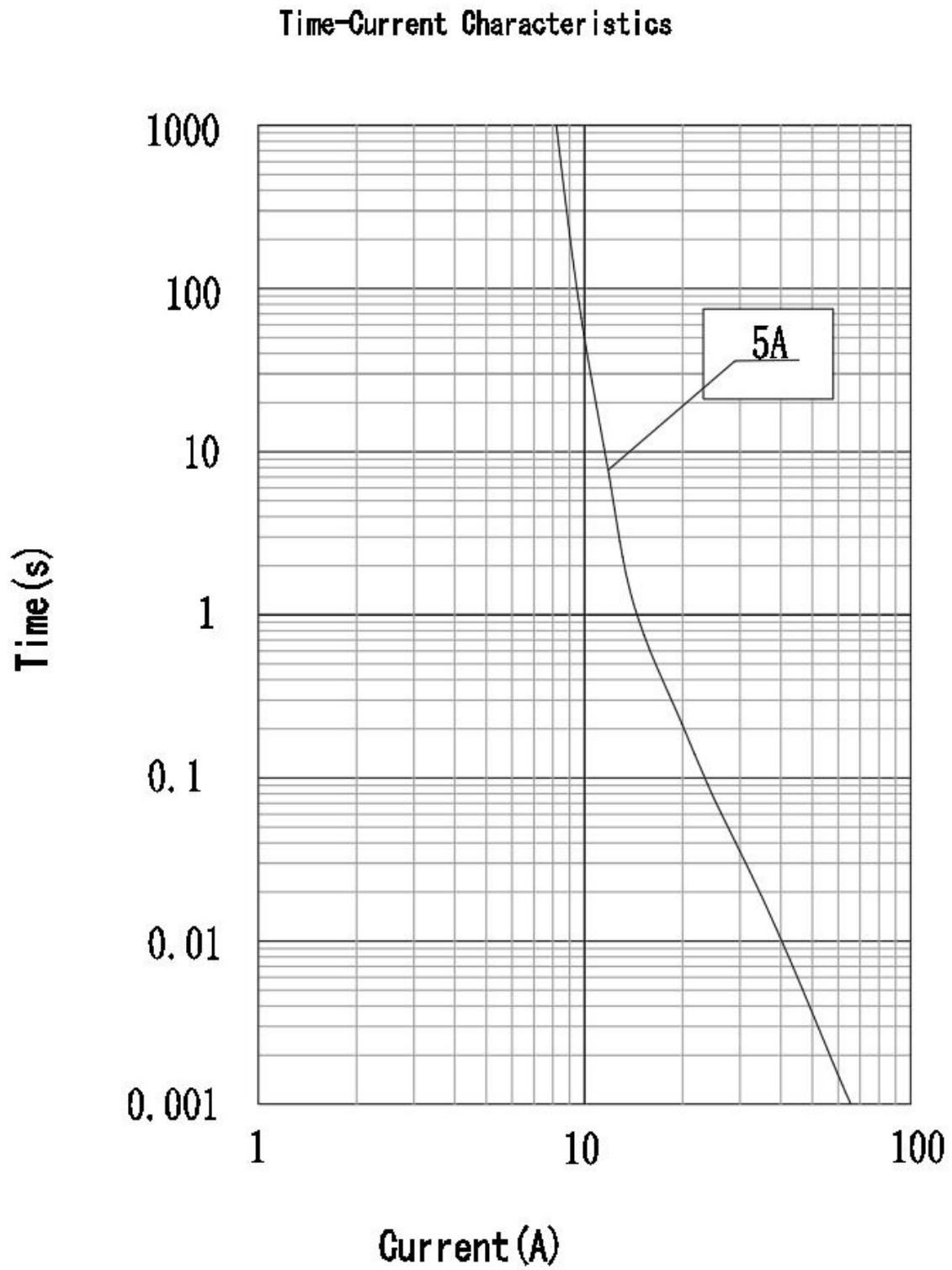


Recommended land pattern

Unit: mm(inch)



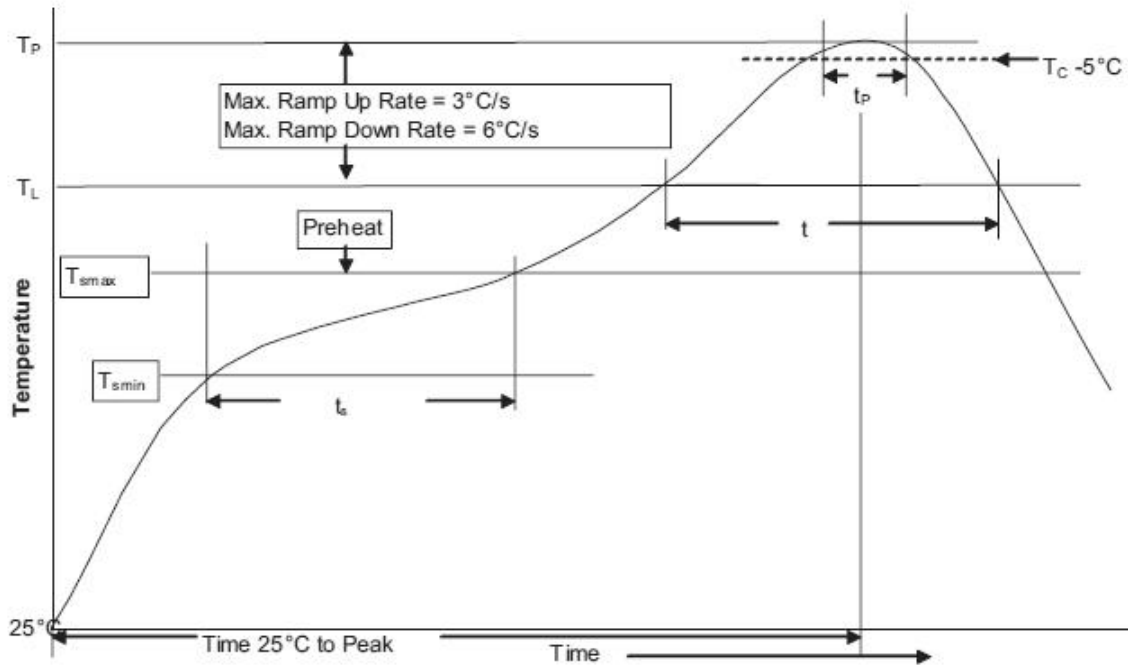
Time-Current Characteristics



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

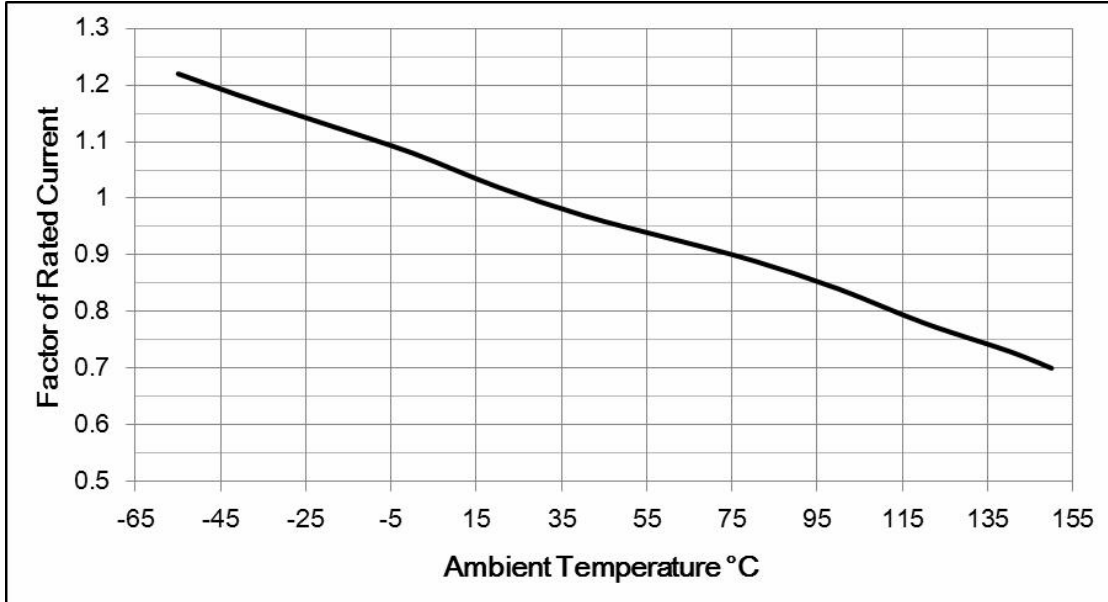


| | | Lead(Pb) free solder |
|---|---|---------------------------|
| Preheat and soak | • Temperature min. (T_{smin}) | 150°C |
| | • Temperature max. (T_{smax}) | 200°C |
| | • Time (T_{smin} to T_{smax}) (t_s) | 60 - 120 Seconds |
| Average ramp up rate T_{smax} to T_P | | 3°C / Second Max. |
| Liquidous 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

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

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