

# 1206 Fast Acting SMD Fuses

DOC.NO.: ISS:F12F4.5

# INDIVIDUAL SPECIFICATION SHEET

Product Name: 1206 Fast Acting SMD Fuses

Part Number: F12F4.5

**Revision: A** 









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Rev.	Effective Date	Changed Contents	
Α	2020-9-27	New Release	

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PREPEARED BY	APPROVED BY
杨崎	AM



#### Description

F12F 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	1.0ln	2.5In	3.5ln	
250mA~5A	4 hour min	5 sec max.	-	
6A~40A	4 hour min.	-	5 sec max.	

#### **Features**

- > AEC-Q200 Automotive Grade Certified
- Rapid interruption of excessive current
- Compatible with reflow and wave solder
- Ceramic and glass construction
- One time positive disconnect
- Lead Free and Halogen free material

#### **Specifications**

Specification							
Part No.	Rated Voltage DC	Rated Curren t (A)	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 Marking
F12F4.5	32V	4.5A	150A@32Vdc	30	164	2.62	Х

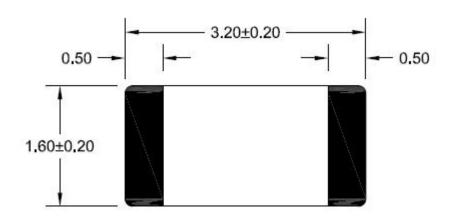
- 1. DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)
- 2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of  $25^{\circ}$ C
- 3. Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current

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

#### **Dimension**

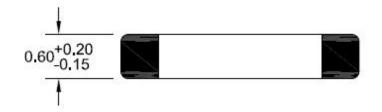
Drawing not to scale (Unit: mm) Top

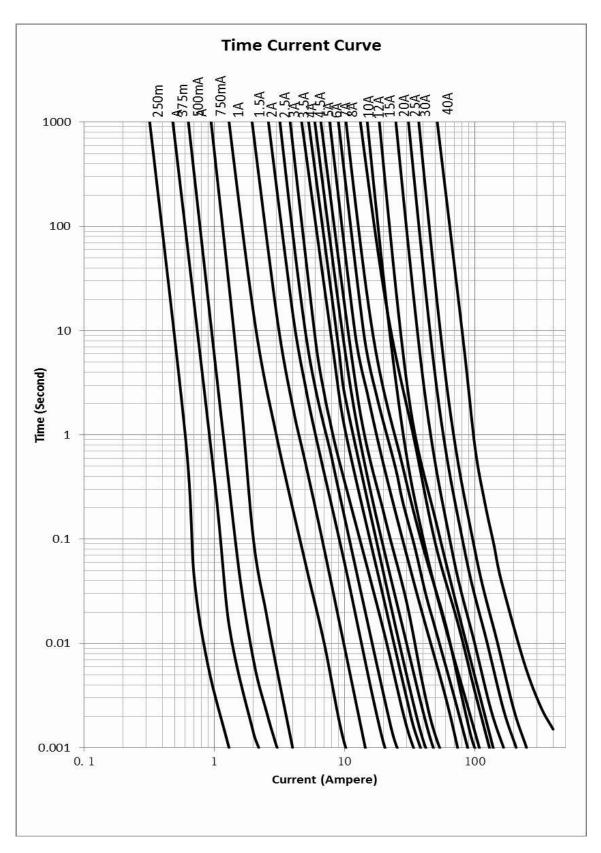
view



Side view: 1A~15A

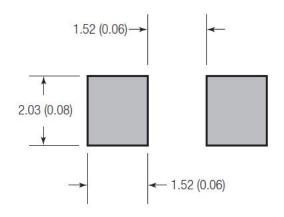








#### **Recommended land pattern**



Unit: mm(inch)

#### **Soldering method**

Wave solder

■ Reservoir temperature: 260°C

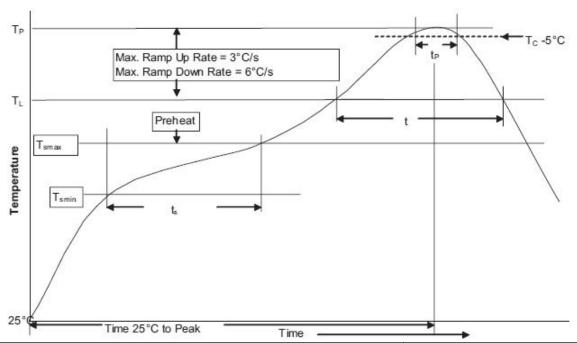
■ Time in reservoir: 10 seconds maximum

> Infrared reflow

■ Temperature: 260°C

■ Time: 30 seconds maximum

#### Solder reflow profile



Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min.(T <sub>smin</sub> )	150°C
	Temperature max. (T <sub>smax</sub> )	200°C
	• Time (T <sub>smin</sub> to T <sub>smax</sub> ) (t <sub>S</sub> )	60 - 120 Seconds

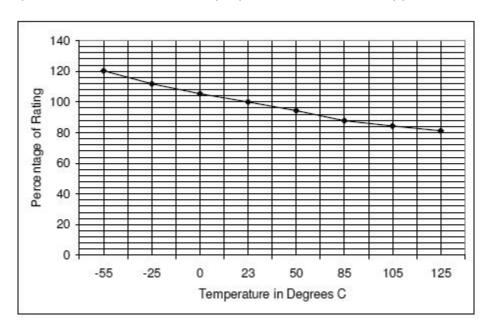


Average ramp up rate T <sub>smax</sub> to T <sub>p</sub>	3°C / Second Max.	
Liquidous temperature (T <sub>L</sub> )	217°C	
Time at liquidous (t∟)	60 - 150 Seconds	
Peak package body temperature (T <sub>P</sub> )	260°C	
Time (t <sub>P</sub> ) within 5°C of the specified classification temperature (T <sub>C</sub> )	30 Seconds	
Average ramp-down rate (T <sub>P</sub> to T <sub>smax</sub> )	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 ---

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