

INDIVIDUAL SPECIFICATION SHEET

Product Name: 0603 Fast Acting SMD Fuses**Part Number:** F06F2**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 Spedfications

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Description

F06F 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
2A	4 hour minimum	5 sec maximum

Features

- AEC-Q200 Automotive Grade Certified
- Compatible with reflow and wave solder
- 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) ²	Typical Voltage Drop (mV)	Typical Pre-Arcing I ² t (A ² Sec) ³	Alpha Mark
	DC						
F06F0.25	32V	0.250	50A	3250	893	0.00042	D
F06F0.375		0.375	50A	1800	587	0.00093	E
F06F0.5		0.500	50A	1070	582	0.001	F
F06F0.75		0.750	50A	470	427	0.009	G
F06F1		1	50A	250	335	0.011	B
F06F1.5		1.5	50A	150	270	0.045	H
F06F2		2	50A	78	160	0.115	K
F06F2.5		2.5	50A	49	145	0.14	L
F06F3		3	50A	35	130	0.21	O
F06F3.5		3.5	50A	28	130	0.5	R
F06F4		4	50A	18	120	0.56	S
F06F5		5	50A	14	110	1.2	T
F06F6		6	50A	11	110	1.7	V**
F06F7		7	50A	9.5	80	2.3	X**
F06F8		8	50A	7	75	3.0	Z**

1. DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)

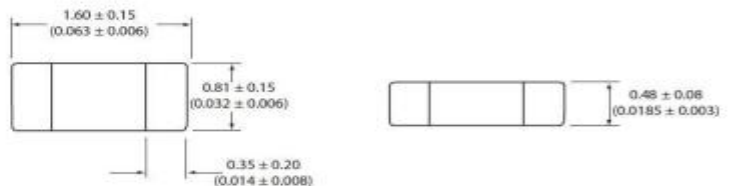
2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees

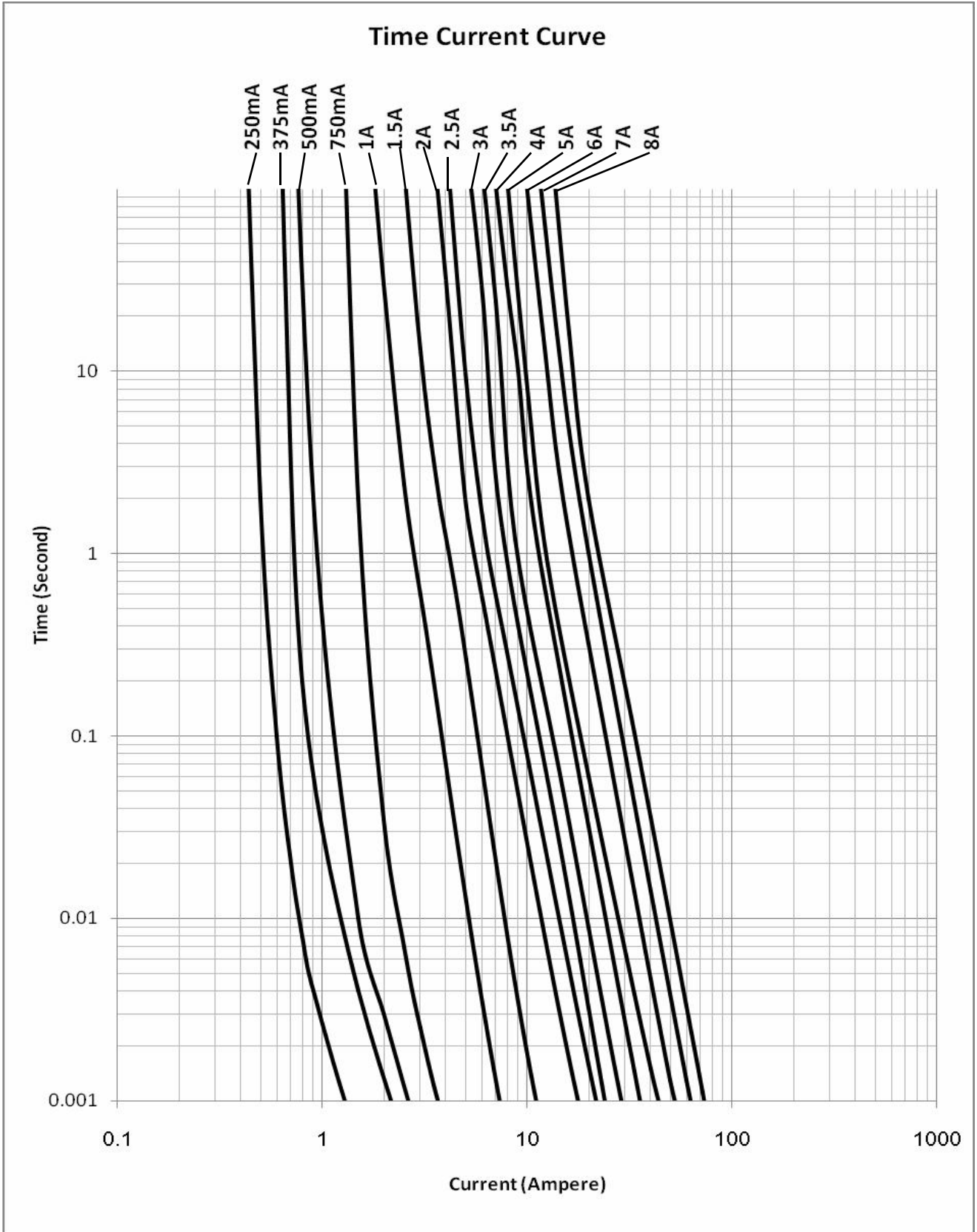
3. Typical Pre-arcing I²t are measured at 10In Current

** For 1A-5A, the color of glass coating is Green; for others, it's Blue.

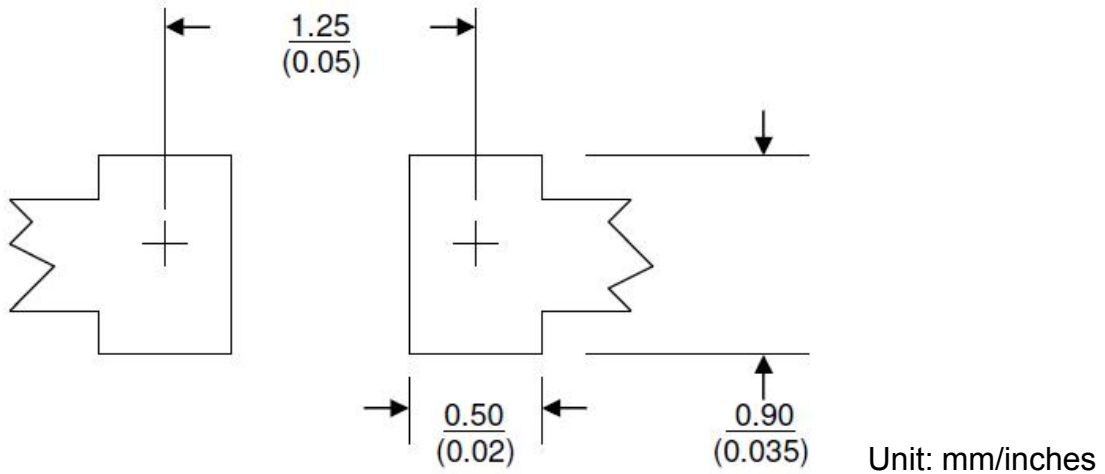
Specifications are subject to change without notice. Application testing is strongly recommended.

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





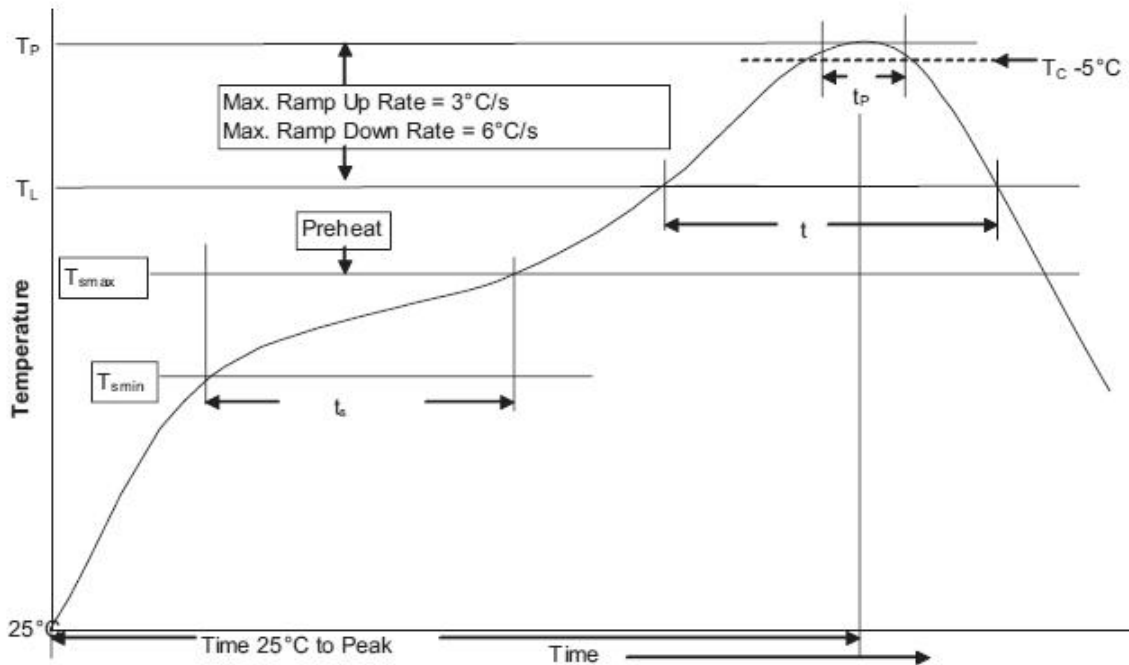
Recommended land pattern



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

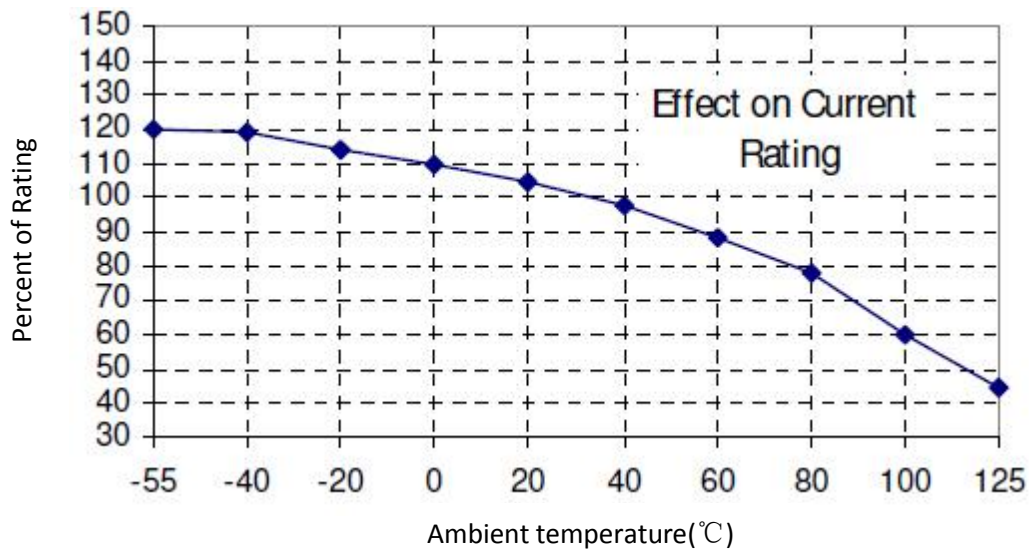


Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min.(T_{smin})	150°C
	• Temperature max. (T_{smax})	200°C
• Time (T_{smin} to T_{smax}) (ts)		60 - 120 Seconds
Average ramp up rate T_{smax} to T_p		3°C / Second Max.
Liquidous temperature (T_L)		217°C
Time at liquidous (t_L)		60 - 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

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

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