

INDIVIDUAL SPECIFICATION SHEET

Product Name: 0402 Fast Acting SMD Fuses

Part Number: F04F Series

Revision: A



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

Rev.	Effective Date	Changed Contents
A	2020-9-18	New Release

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.

PREPARED BY

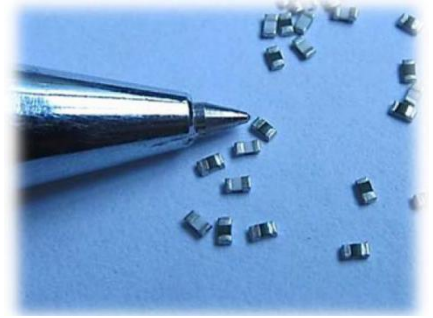


APPROVED BY



Description

F04F Series Chip fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics and also makes our chip fuses more heat and shock tolerant than typical subminiature fuses



Electrical Characteristics			
Rated Current	1.0In	2.5In	3.0In
1A~4A	4 hour minimum	5 sec	
200mA~750mA	4 hour minimum		5sec

Features

- Fast acting for excessive current
- Compatible with reflow and wave solder
- Ceramic and glass construction
- Excellent environmental integrity
- One time positive disconnect
- Lead Free and Halogen free material

SPECIFICATIONS					
Product Code	Current Rating	Voltage Rating DC	Interrupting Rating*	Resistance (ohms)** Typ.	Typical Melt I^2t *** DC (A ² s)
F04F0.2	200mA	32V	35A	2.25	0.0006
F04F0.25	250mA	32V	35A	1.50	0.0010
F04F0.315	315mA	32V	35A	1.00	0.0014
F04F0.375	375mA	32V	35A	0.78	0.0018
F04F0.5	500mA	32V	35A	0.50	0.0043
F04F0.75	750mA	32V	35A	0.22	0.011
F04F1	1A	32V	35A	0.13	0.04
F04F1.25	1.25A	32V	35A	0.10	0.048
F04F1.5	1.5A	32V	35A	0.078	0.06
F04F2	2A	32V	35A	0.040	0.13
F04F2.5	2.5A	32V	35A	0.024	0.20
F04F3	3A	32V	35A	0.018	0.33
F04F3.5	3.5A	32V	35A	0.014	0.45
F04F4	4A	32V	35A	0.011	0.60

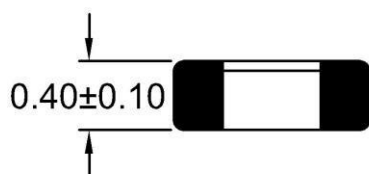
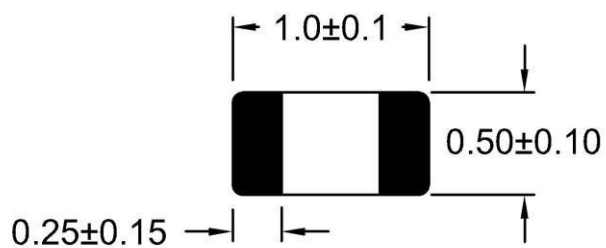
1) DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source);

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

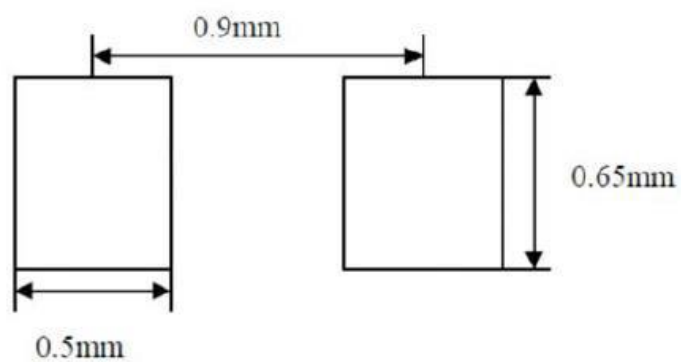
3) Typical Melting I^2t (Measured with a battery bank at rated DC voltage, Measured at 1ms open time, time constant of calibrated circuit less than 50 microseconds).

Dimension

Drawing not to scale (Unit: mm)



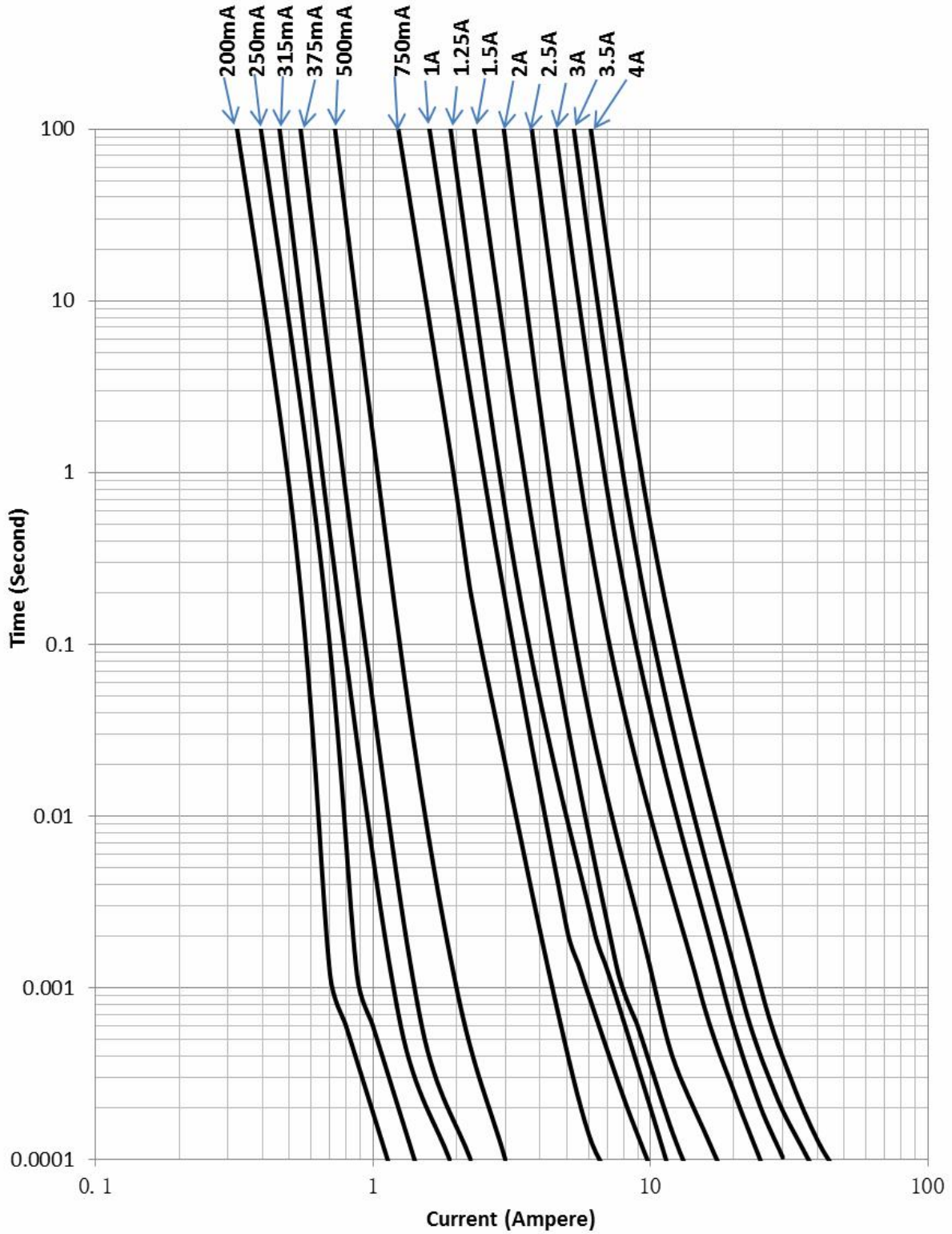
Recommended land pattern



Note: Print solder in thickness of 0.08mm to 0.10mm

注: 锡膏印刷厚度 0.08 毫米到 0.10 毫米

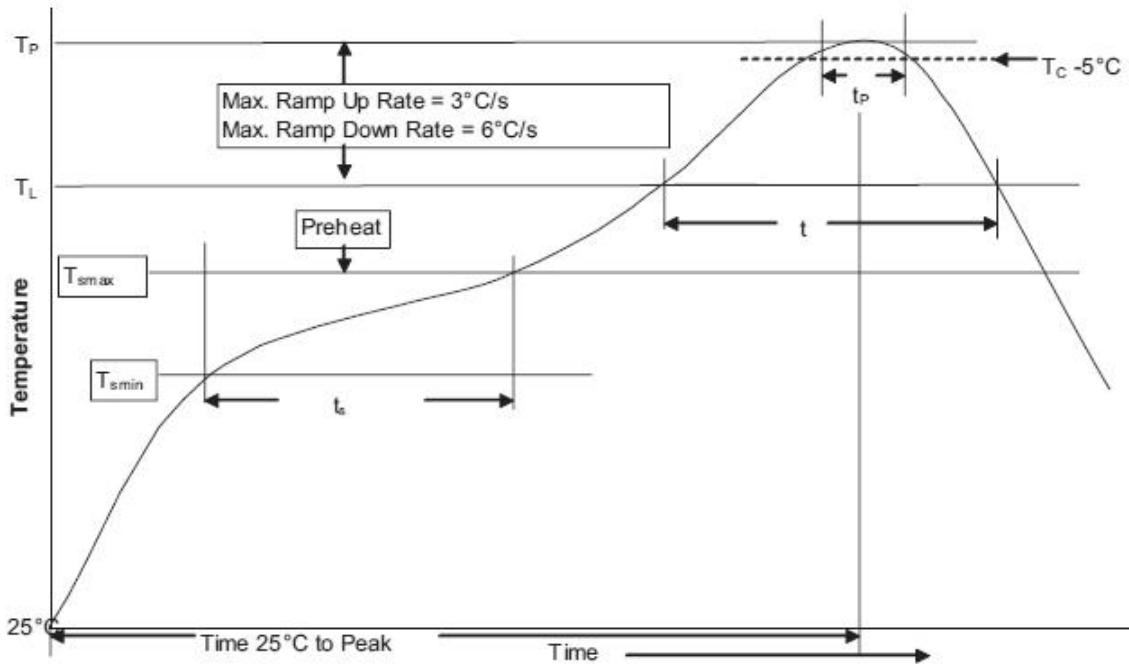
Time Current Curve



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

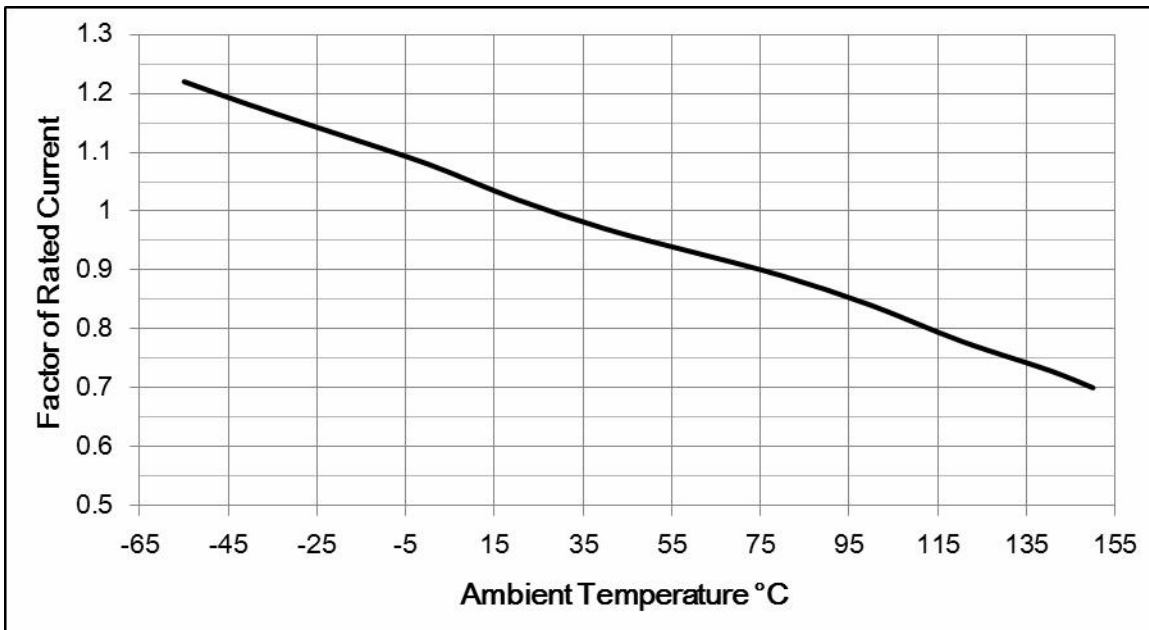


Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min. (T_{smin})	150°C
	• Temperature max. (T_{smax})	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60 - 120 Seconds
Average ramp up rate T_{smax} to T_P		3°C / Second Max.
Liquidous temperature (T_L)		217°C
Time at liquidous (t_L)		60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



Package

10000 fuses on 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481.

--- End of Document ---