

INDIVIDUAL SPECIFICATION SHEET

Product Name: 0603 Slow Blow SMD Fuses

Part Number: F06Tx

Revision: A/2



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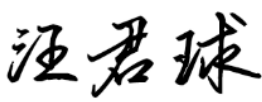
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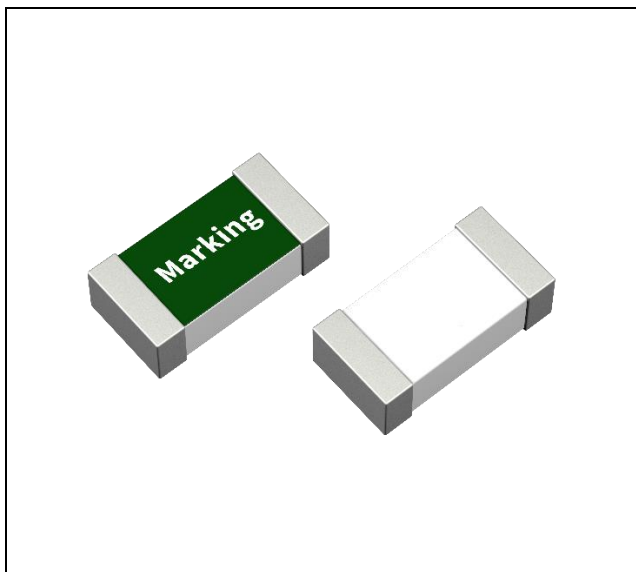
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Rev.	Effective Date	Changed Contents
A/0	2020-9-25	New Release
A/1	2021-3-11	Update Specifications
A/2	2022-9-22	Update Template

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Description

- Thick film manufacturing method, ceramic substrate.
- Slow Blow SMD Fuses for over current protection.
- Ultra small physical size, 1.60mm×0.81mm.
- Excellent heat and shock tolerant.
- -55℃~125℃ operating temperature.

Application

- Power supply and battery pack
- Lamps and LED
- Power tools
- PC related equipment and peripherals (Hard driver, Printer, etc.)
- Digital camera (Digital still camera)
- Game equipment
- LCD monitor and LCD modules
- Wireless base station
- Medical device

Electrical Characteristics

Operating Characteristics			
Model	250%I _n	350%I _n	100 %I _n
F06T 1-8	5s Max	—	4 hrs Min

I_n : Rating Current

Specifications

Part No.	Rated Voltage	Rated Current	Breaking Capacity ¹	Typical Cold Resistance ² (mΩ)	Typical Voltage Drop (mV)	Typical Pre-Arcing I ² t (A ² Sec) ³	Marking
F06T1	32V DC	1	50A@32Vdc	320	335	0.011	B
F06T1.5	32V DC	1.5	50A@32Vdc	150	270	0.045	H
F06T2	32V DC	2	50A@32Vdc	72	160	0.115	K
F06T2.5	32V DC	2.5	50A@32Vdc	52	145	0.14	L
F06T3	32V DC	3	50A@32Vdc	35	130	0.28	O
F06T3.5	32V DC	3.5	50A@32Vdc	23.8	130	0.5	R
F06T4	32V DC	4	50A@32Vdc	21	120	0.6	S
F06T5	32V DC	5	50A@32Vdc	14	110	1.9	T

Part No.	Rated Voltage	Rated Current	Breaking Capacity ¹	Typical Cold Resistance ² (mΩ)	Typical Voltage Drop (mV)	Typical Pre-Arcing I ² t (A ² Sec) ³	Marking
F06T6	32V DC	6	50A@32Vdc	8.5	110	2.3	V
F06T7	32V DC	7	50A@32Vdc	7.3	90	3	X
F06T8	32V DC	8	50A@32Vdc	5.1	80	4.5	Z

Note

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

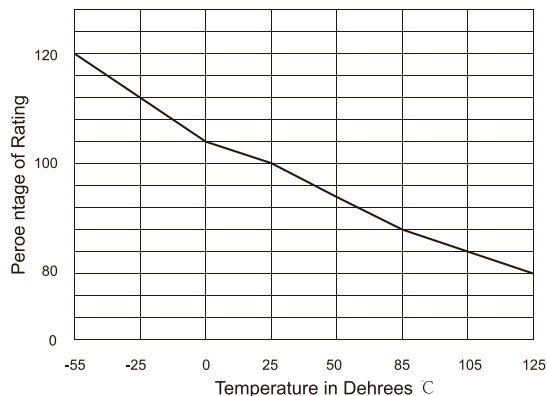
2.DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25℃

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

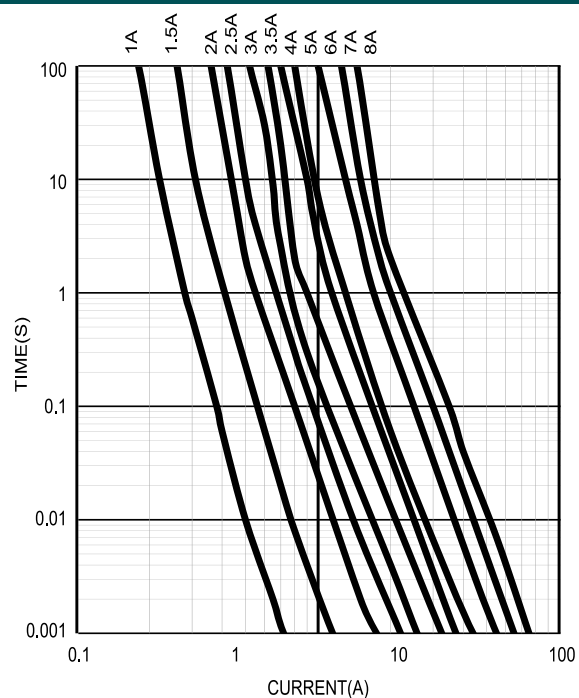
Temperature-Current Curve

When choosing the fuse's specification, if the operating environmental temperature beyond the scope from 20~26℃, you should consider the environmental temperature's affection to fuses.

please refer Temperature-Current curve:



Pre-Arcing Time-Current Characteristics

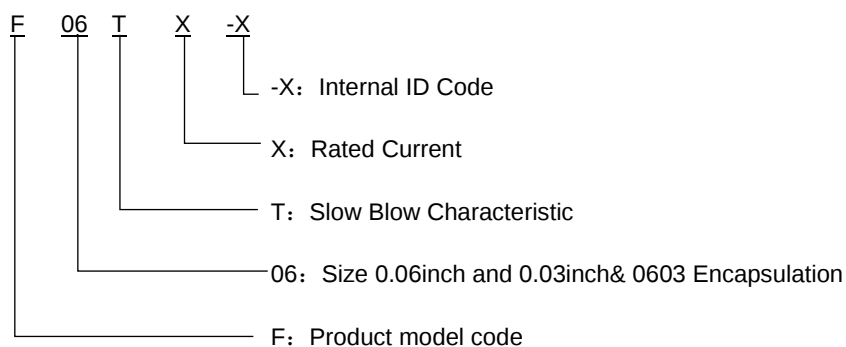


Product structure and materials

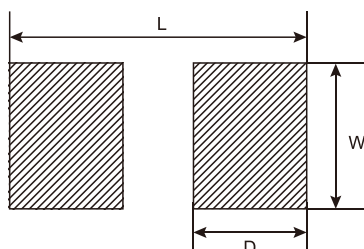
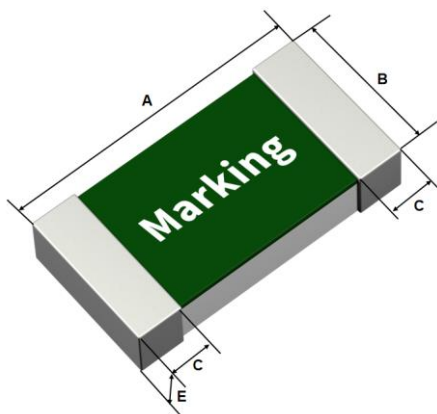


No.	Component	Materials
①	Terminal & pad	Ag / Ni / Sn
②	Substrate	Alumina Ceramic
③	Protective Overglaze	Glass
④	Marking	Glass
⑤	Fuse element	Silver

Product Model and Code



Shape & Dimensions



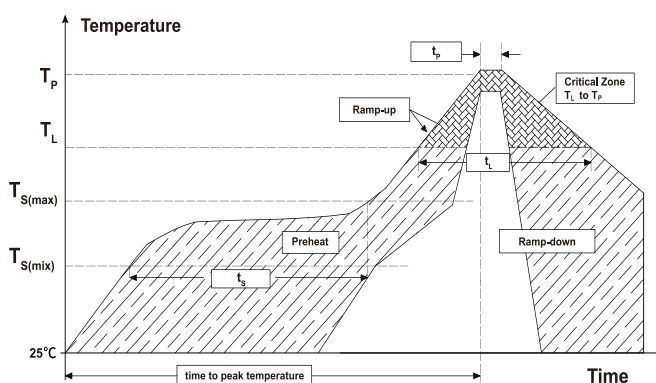
Model	F06T series
A	1.60 ± 0.15 mm
B	0.81 ± 0.15 mm
C	0.35 ± 0.20 mm
E	0.48 ± 0.08 mm

Recommended Size of the Pad			
L	W	D	t
2.2mm	1.0 mm	0.7 mm	$\geq 35\mu\text{m}$

t : Thickness of pad metal

Soldering Parameters

Reflow Methods		
Reflow Condition		Lead (Pb) free solder
Preheat and soak	Temperature min. T_s (min)	150°C
	Temperature max. T_s (max)	200°C
	Time (T_s min to T_s max) (t_s)	60 - 180 Seconds
Average ramp up rate T_s (max) to T_L		5 °C / Second Max.
Reflow	Liquidous temperature (T_L)	217°C
	Time at liquidous (t_L)	60 - 150 Seconds
Peak package body temperature (T_p)		260^{+0}_{-5} °C
Time within 5°C of actual peak temperature (t_p)		10-30 Seconds
Average ramp-down rate		6°C / Second Max.
Time (25°C to Peak Temperature)		8 Minutes Max.
Do not exceed		260°C



Soldering iron welding:

Soldering iron temperature: 350℃

Welding time: 3 seconds maximum

Wave solder

Reservoir temperature: 260℃

Time in reservoir: 10 seconds maximum

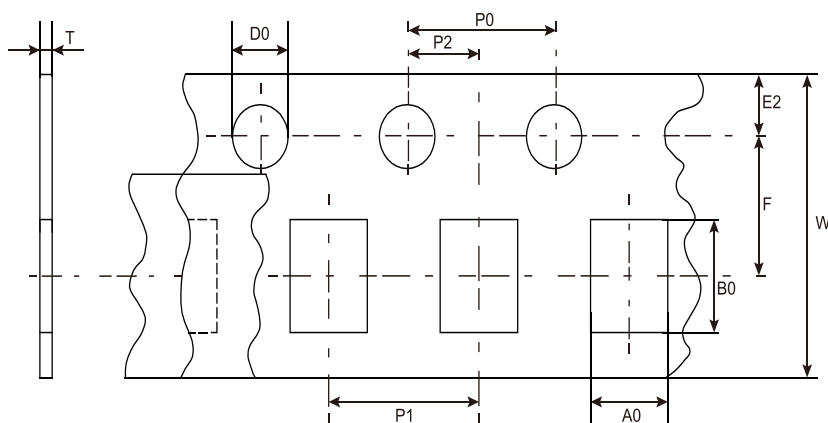
Packing Information & Storage Conditions
Quantity & Weight

Part No.	Quantity	Weight
F06T series	5000pcs/Reel	130 ± 20 (g)

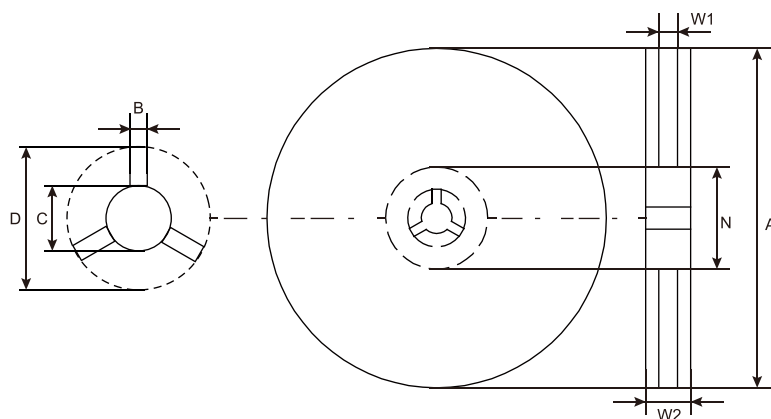
Storage Conditions

Under airtight in temperature 10℃~40℃, relative humidity ≤ 75% can store 2 years.

Without dew in temperature 10℃~40℃, relative humidity be 95% maximum value for 30 days.

Tape and Reel Specification


Item	A0	B0	D0	E2	F
Spec.(mm)	1.10±0.05	1.90±0.05	1.55±0.05	1.75±0.10	3.50±0.05
Item	P0	P1	T	W	
Spec.(mm)	4.00±0.10	4.00±0.10	0.60±0.05	8.00±0.10	



Item	A	B	C	D	N	W1	W2
Spec.(mm)	178±5	1.6 Min.	12.8 Min.	20.8 Min.	58±2	8.4 Min.	12.4 Max.