

0603 Fast Acting SMD Fuses

06 100 Series



Description

06 100 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	2.0In
250mA~8A	4 hour minimum	60 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						
06 100.0.25	32V	0.250	50A	3250	893	0.00042	D
06 100.0.375		0.375	50A	1800	587	0.00093	E
06 100.0.5		0.500	50A	1070	582	0.001	F
06 100.0.75		0.750	50A	470	427	0.009	G
06 100.1		1	50A	250	335	0.0095	B
06 100.1.5		1.5	50A	150	270	0.04	H
06 100.2		2	50A	78	160	0.11	K
06 100.2.5		2.5	50A	49	145	0.135	L
06 100.3		3	50A	35	130	0.21	O
06 100.3.5		3.5	50A	28	130	0.45	R
06 100.4		4	50A	18	120	0.56	S
06 100.5		5	50A	14	110	1.2	T
06 100.6		6	50A	11	110	1.7	V**
06 100.7		7	50A	9.5	80	2.3	X**
06 100.8		8	50A	7.0	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

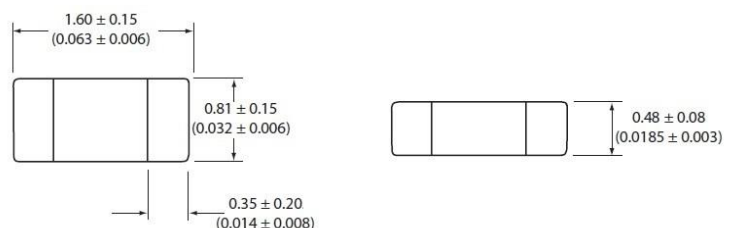
** For 1A-5A, the color of glass coating is Green; for others, it's Blue.

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

Dimension

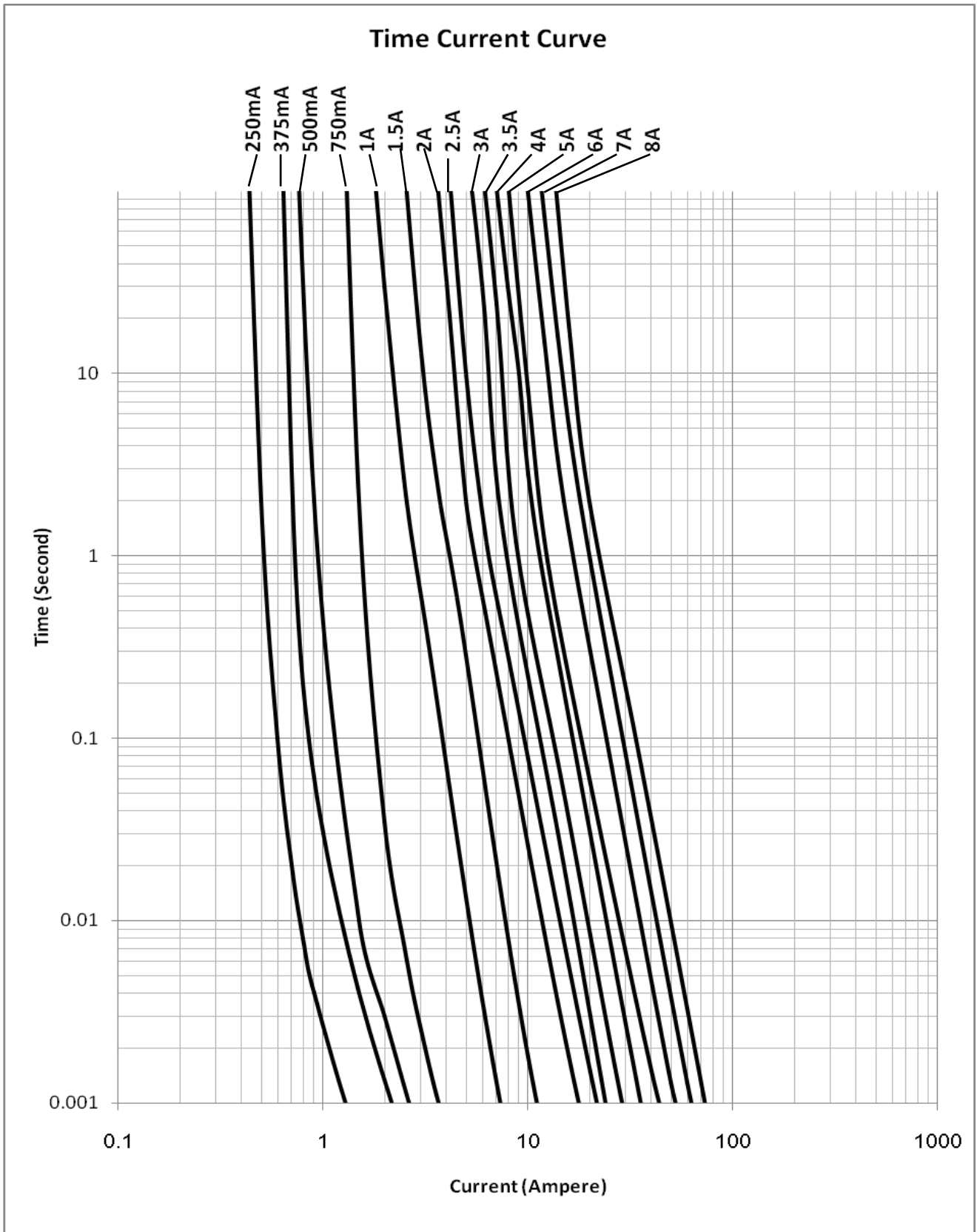
Drawing not to scale (Unit:

mm/inch)



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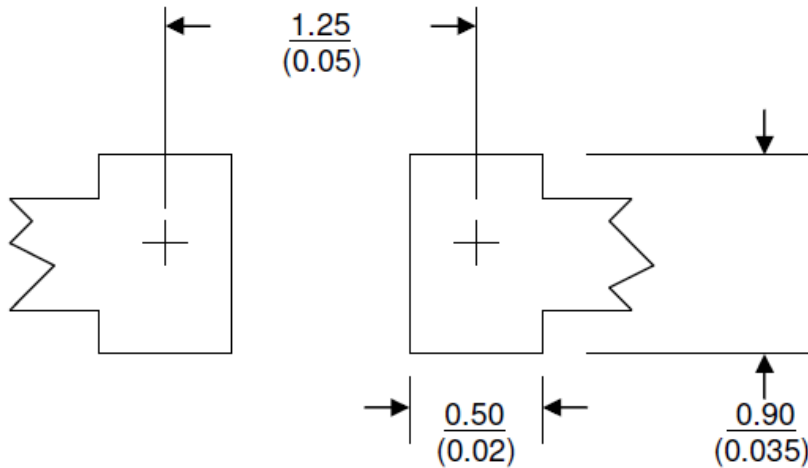


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Recommended land pattern

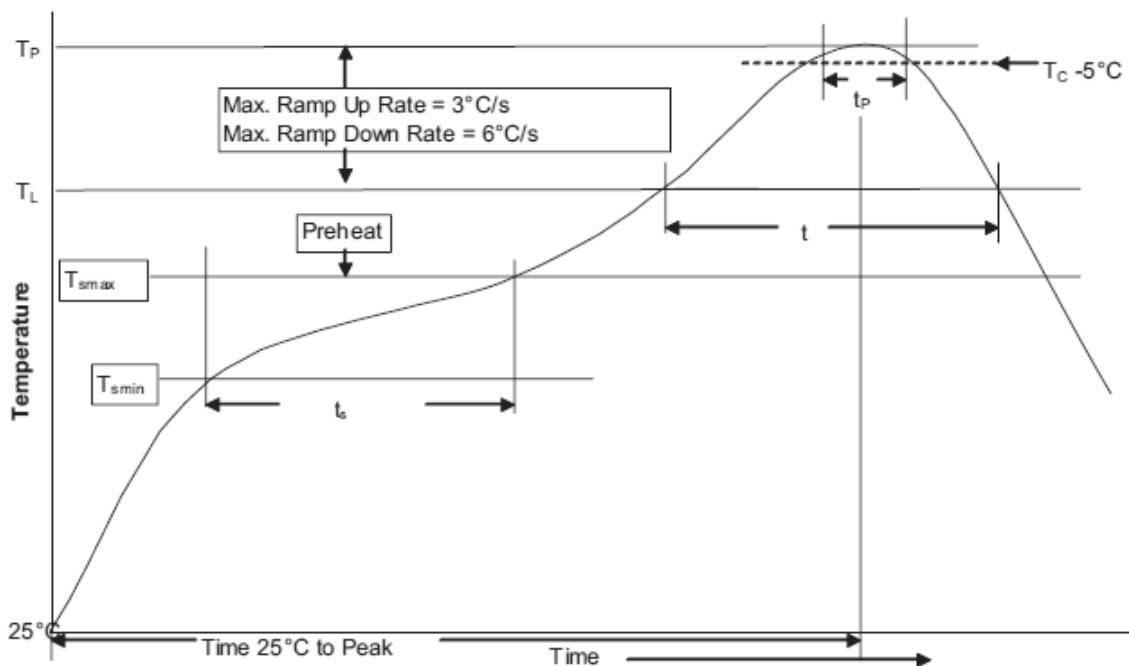


Unit: mm/inches

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	<ul style="list-style-type: none"> • Temperature min.(T_{smin}) • Temperature max. (T_{smax}) • Time (T_{smin} to T_{smax}) (t_s) 	<ul style="list-style-type: none"> 150°C 200°C 60 - 120 Seconds

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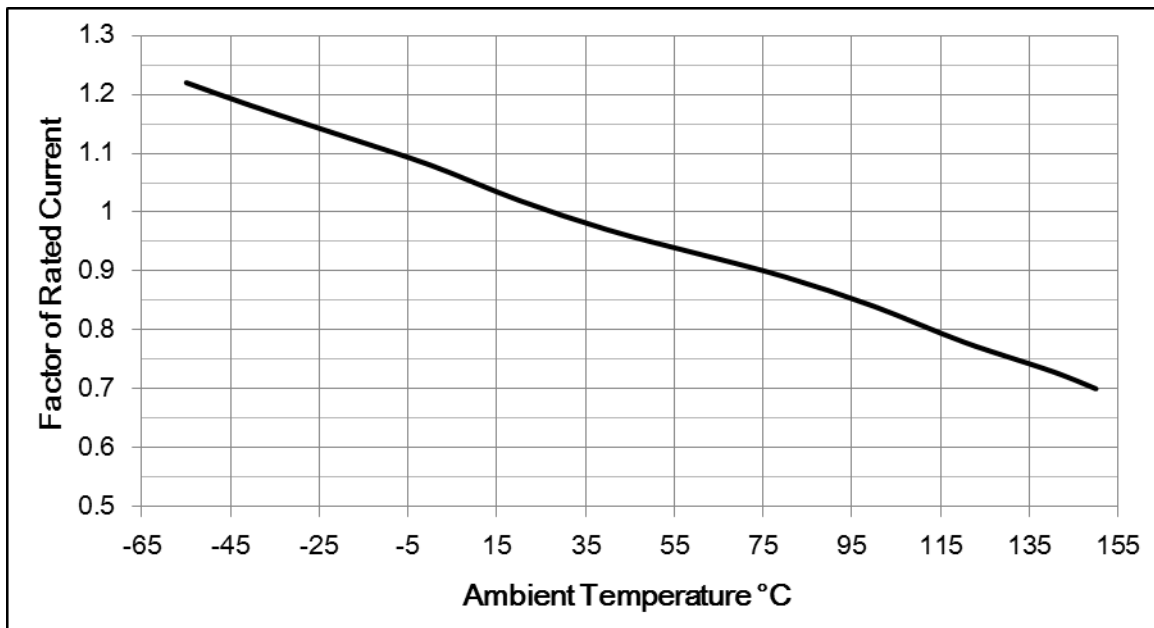


Average ramp up rate T_{smax} to T_p	3°C / Second Max.
Liquidous temperature (T_L)	217°C
Time at liquidous (t_L)	60 - 150 Seconds
Peak package body temperature (T_P)	260°C
Time (t_p) within 5°C of the specified classification temperature (T_C)	30 Seconds
Average ramp-down rate (T_P to T_{smax})	6°C / 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

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

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