0603 Fast Acting SMD Fuses

06 100 Series

E355868

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

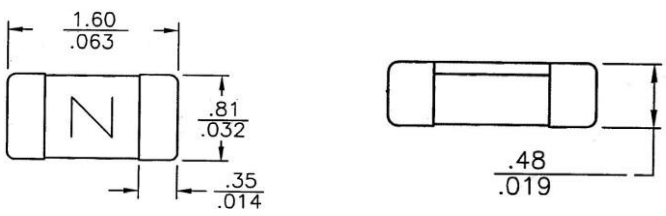
- AEC-Q200 Automotive Grade Certified
- Compatible with reflow and wave solder
- Excellent environmental integrity
- One time positive disconnect
- Lead Free and Halogen free material

Specifications

Specification							
Part No.	Rated Voltage DC	Rated Current (A)	Breaking Capacity (A) [1]	Typical Cold. Resistance (mOhms) [2]	Typical Voltage Drop (mV)	Typical Pre-Arcing I^2t (A^2Sec) [3]	Alpha Mark
06 100.0.25	32V	0.250	50A	3250	893	0.00042	D
06 100.0.375		0.375	50A	1310	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	300	345	0.011	B
06 100.1.5		1.5	50A	150	270	0.045	H
06 100.2		2	50A	72	160	0.115	K
06 100.2.5		2.5	50A	52	145	0.14	L
06 100.3		3	50A	35	130	0.21	O
06 100.3.5		3.5	50A	23.8	130	0.5	R
06 100.4		4	50A	21	120	0.56	S
06 100.5		5	50A	14	110	1.2	T
06 100.6		6	50A	8.5	110	1.7	V
06 100.7		7	50A	7.3	80	2.3	X
06 100.8		8	50A	5.1	75	3.0	Z

* DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)
* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees
* Typical Pre-arching I^2t are measured at 10In Current
** For 1A-5A, the color of glass coating is Green; for others, it's Blue.

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



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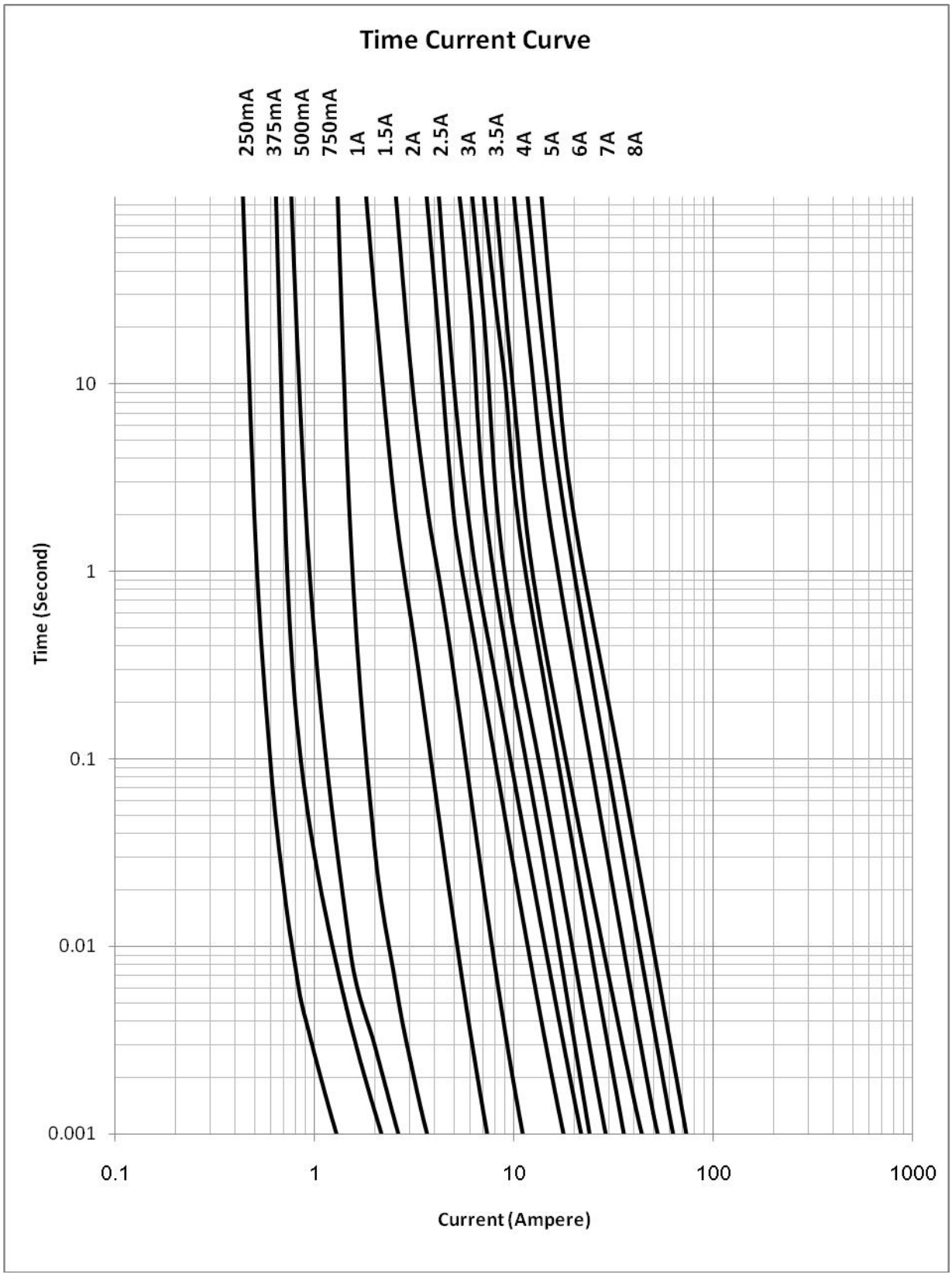

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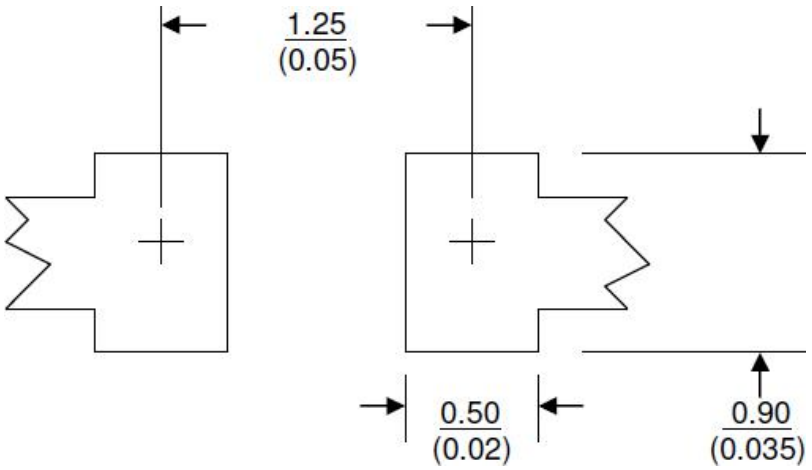
Recommended land pattern

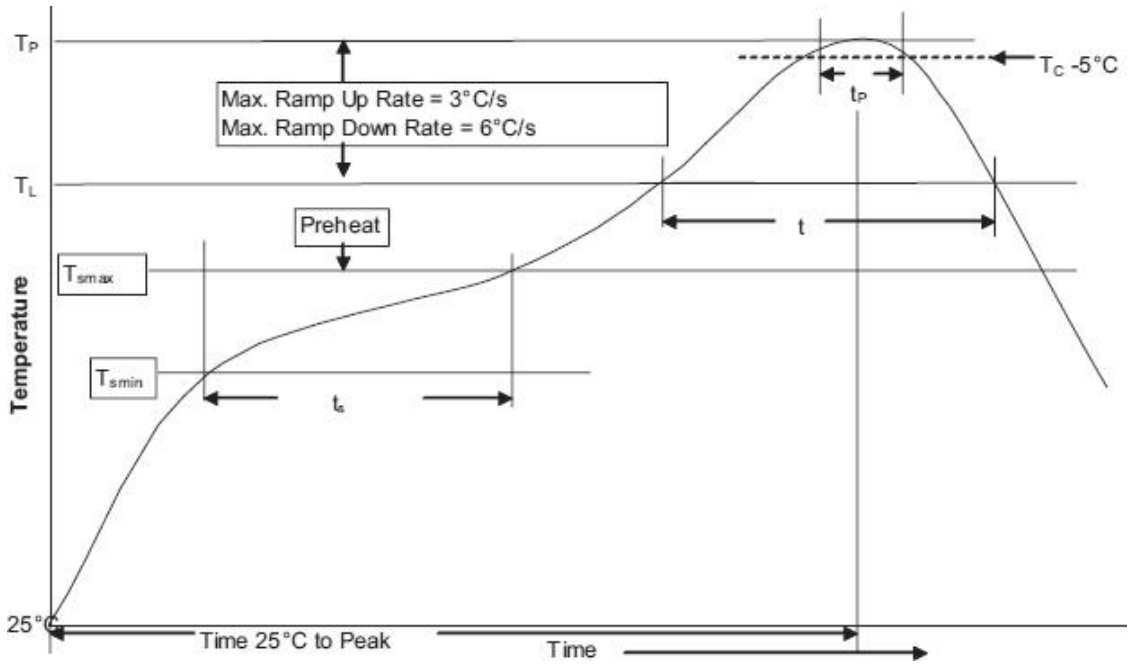


Unit: mm/inches

Soldering method

- Wave solder
  - Reservoir temperature: 260℃
  - Time in reservoir: 10 seconds maximum
- Infrared reflow
  - Temperature: 260℃
  - Time: 30 seconds maximum

Solder reflow profile



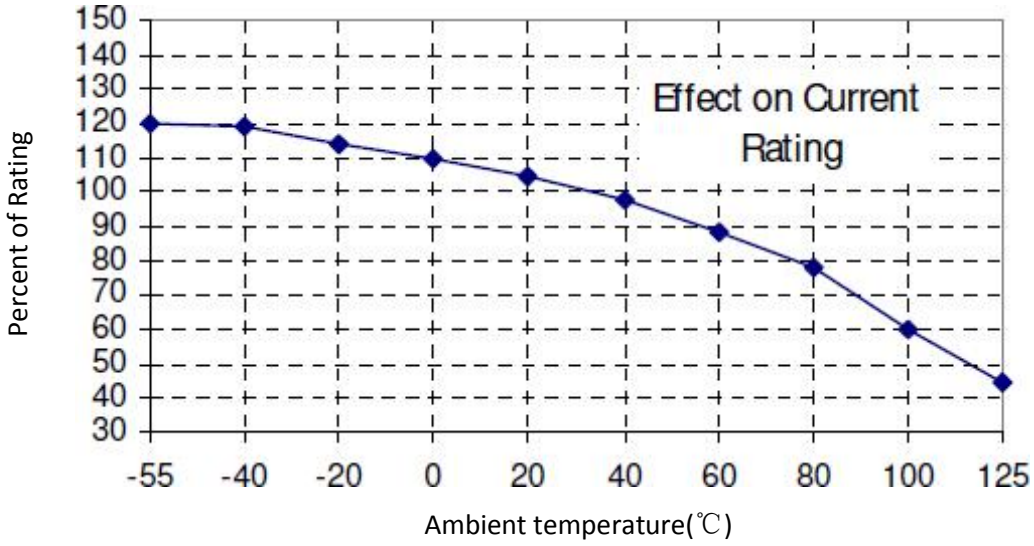
Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min.(T_{smin})	150℃
	• Temperature max. (T_{smax})	200℃

• Time (T_{smin} to T_{smax}) (t_S)	60 - 120 Seconds
Average ramp up rate T_{smax} to T_p	3℃ / Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)	217℃ 60 - 150 Seconds
Peak package body temperature (T_P)	260℃
Time (t_P) within 5℃ of the specified classification temperature (T_C)	30 Seconds
Average ramp-down rate (T_P to T_{smax})	6℃ / Second Max.
Time (25℃ to Peak Temperature)	8 Minutes Max.

Temperature Derating Curve

Normal ambient temperature: 23+/-3℃

Operating temperature: -55 ~ 125℃, 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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Website: http://www.jksemi.com
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