JK SEMI
Leading Innovation

0603 Time Delay SMD Fuses

06 110 Series

E355868

Description

06 110 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	2.5In
1A~8A	4 hour minimum	1~60 sec	5 sec maximum

Features

- High inrush current withstanding capability
- AEC-Q200 Automotive Grade Certified
- Compatible with reflow and wave solder
- Ceramic and glass construction
- Excellent environmental integrity
- One time positive disconnect
- Lead Free and Halogen free material

Specifications

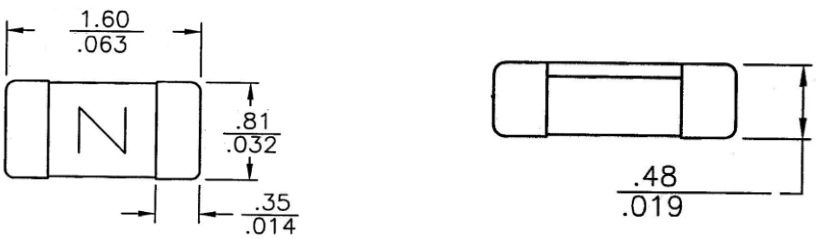
Specification							
Part No.	Rated Voltage DC	Rated Current (A)	Breaking Capacity (A) [1]	Typical Cold. Resistance (mOhms) [2]	Typical Voltage Drop (mV)	Typical Pre-Arcing I^2t (A^2Sec) [3]	Alpha Mark
06 110.1	32V	1	50A	300	345	0.011	B
06 110.1.5		1.5	50A	150	270	0.045	H
06 110.2		2	50A	72	160	0.115	K
06 110.2.5		2.5	50A	52	145	0.14	L
06 110.3		3	50A	35	130	0.28	O
06 110.3.5		3.5	50A	23.8	130	0.5	R
06 110.4		4	50A	21	120	0.6	S
06 110.5		5	50A	14	110	1.9	T
06 110.6		6	50A	8.5	110	2.3	V**
06 110.7		7	50A	7.3	90	3	X**
06 110.8		8	50A	5.1	80	4.5	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

Choice fuse for surge application (USB charger etc.), make sure the I^2t of fuse is 4 times than surge.

**Different with other ratings, the color of glass cover of 6A, 7A and 8A is BLUE color

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



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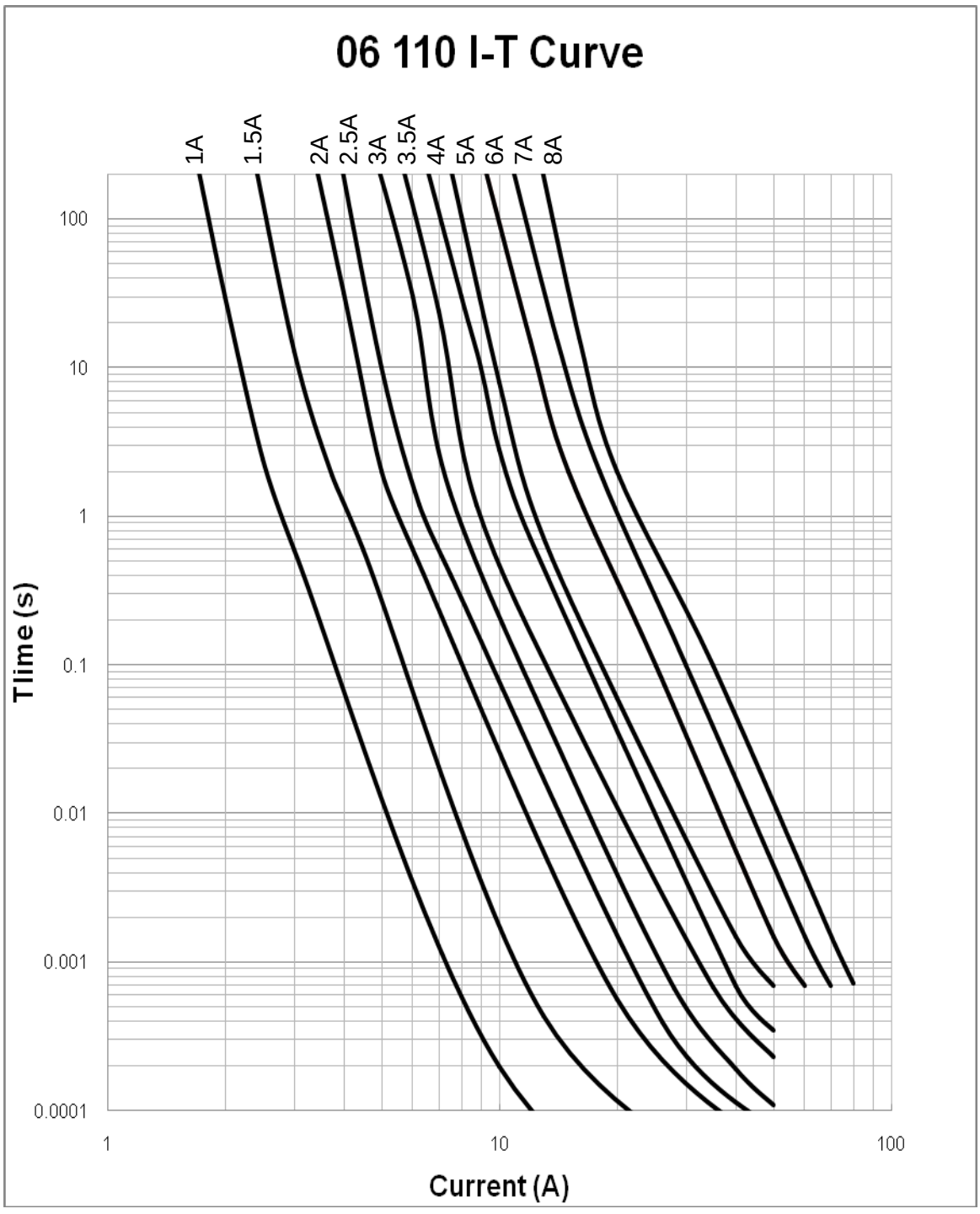

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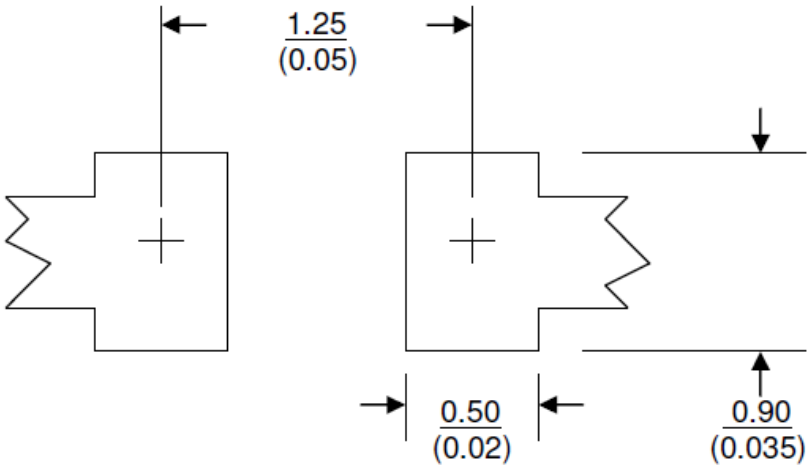
Recommended land pattern

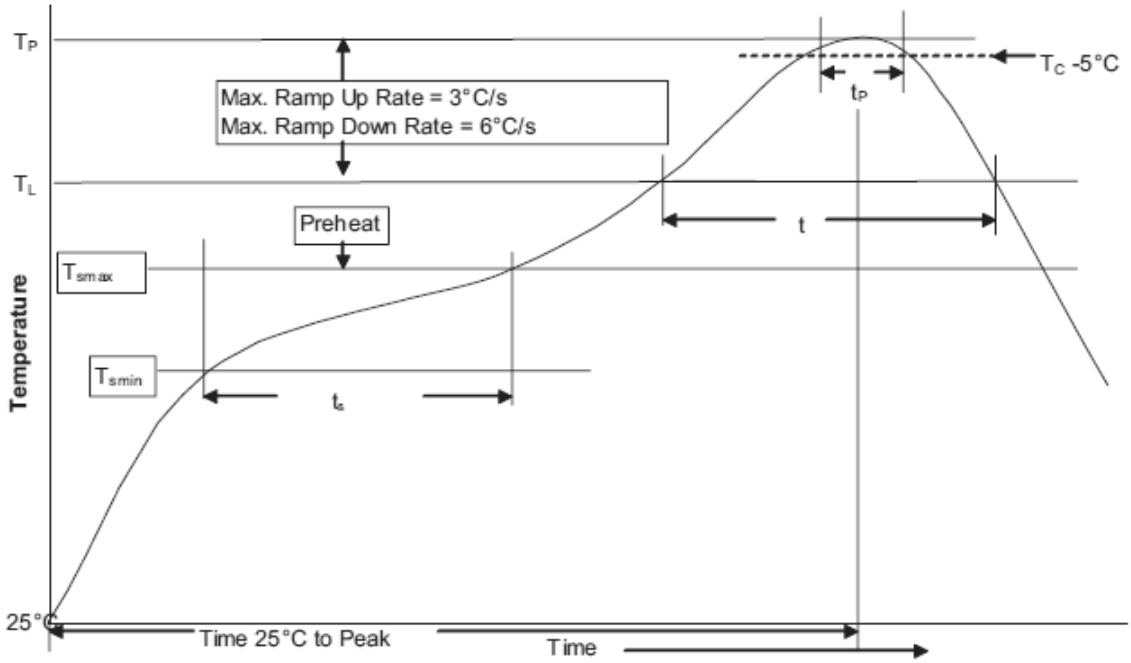


Unit: mm/inches

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℃

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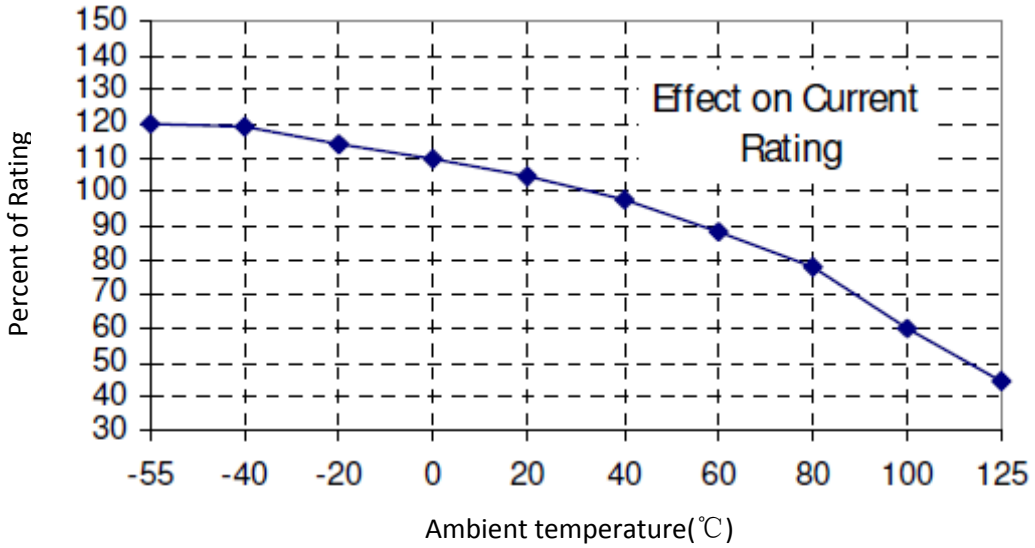
• Time (T_{smin} to T_{smax}) (t_S)	60 - 120 Seconds
Average ramp up rate T_{smax} to T_p	3℃ / Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)	217℃ 60 - 150 Seconds
Peak package body temperature (T_P)	260℃
Time (t_P) within 5℃ of the specified classification temperature (T_C)	30 Seconds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