



## 0603 Time Delay SMD Fuses

### 06 110 Series



#### 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	Rated Current (A)	Breaking Capacity (A) 1	Typical Cold Resistance (mOhms) <sup>2</sup>	Typical Voltage Drop (mV)	Typical Pre-Arcing I <sup>2</sup> t (A <sup>2</sup> Sec) <sup>3</sup>	Alpha Mark
	DC						
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)

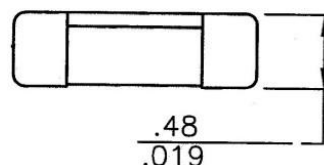
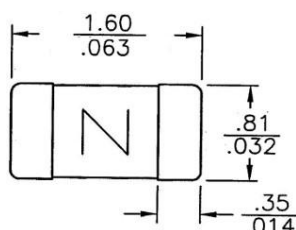
\* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees

\* Typical Pre-arching I<sup>2</sup>t are measured at 10In Current

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

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

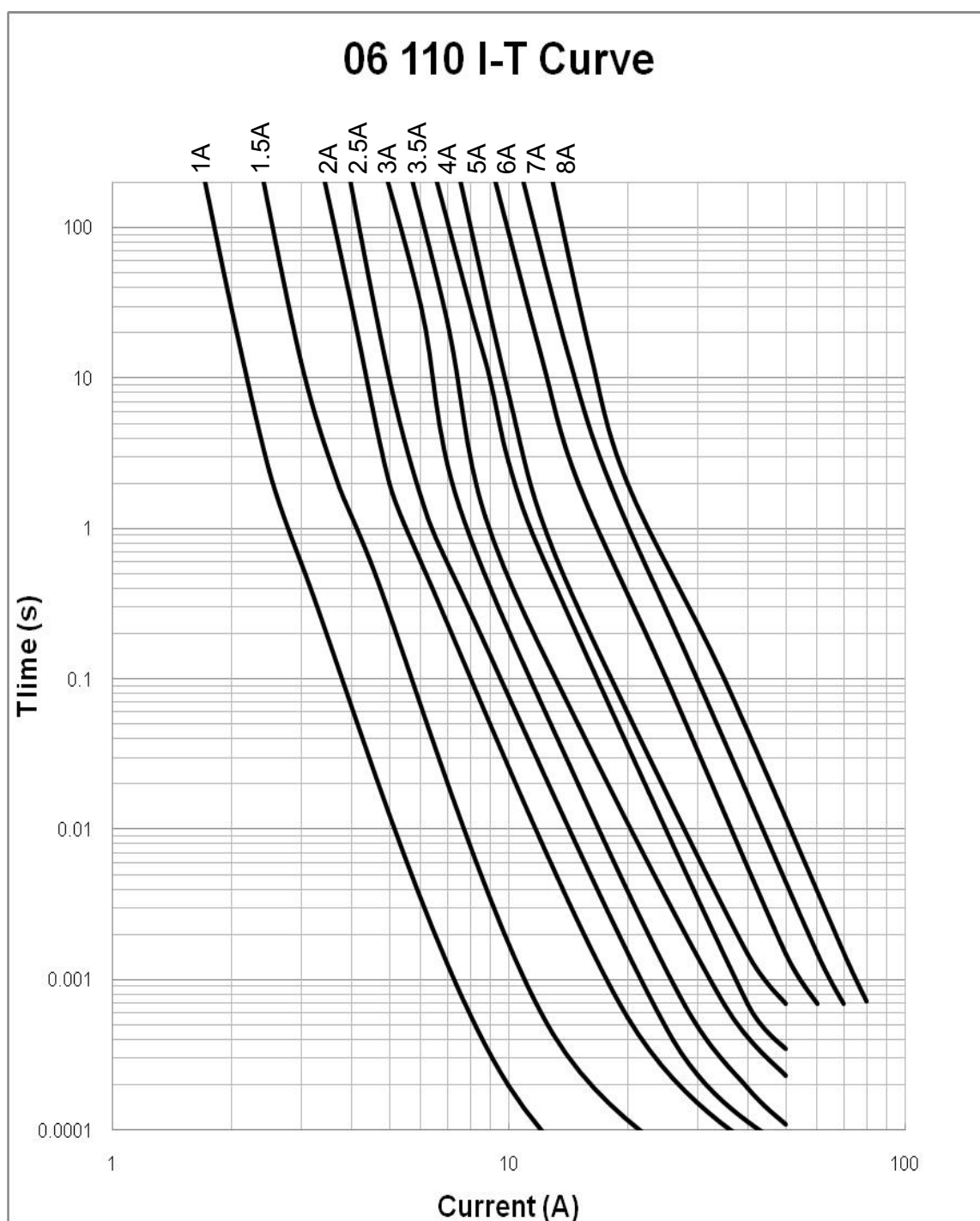
#### Dimension Drawing not to scale (Unit: mm/inch)





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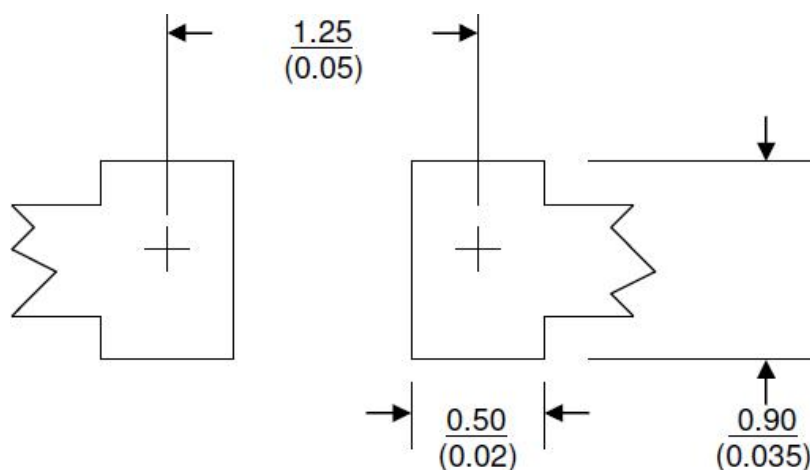


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## Recommended land pattern

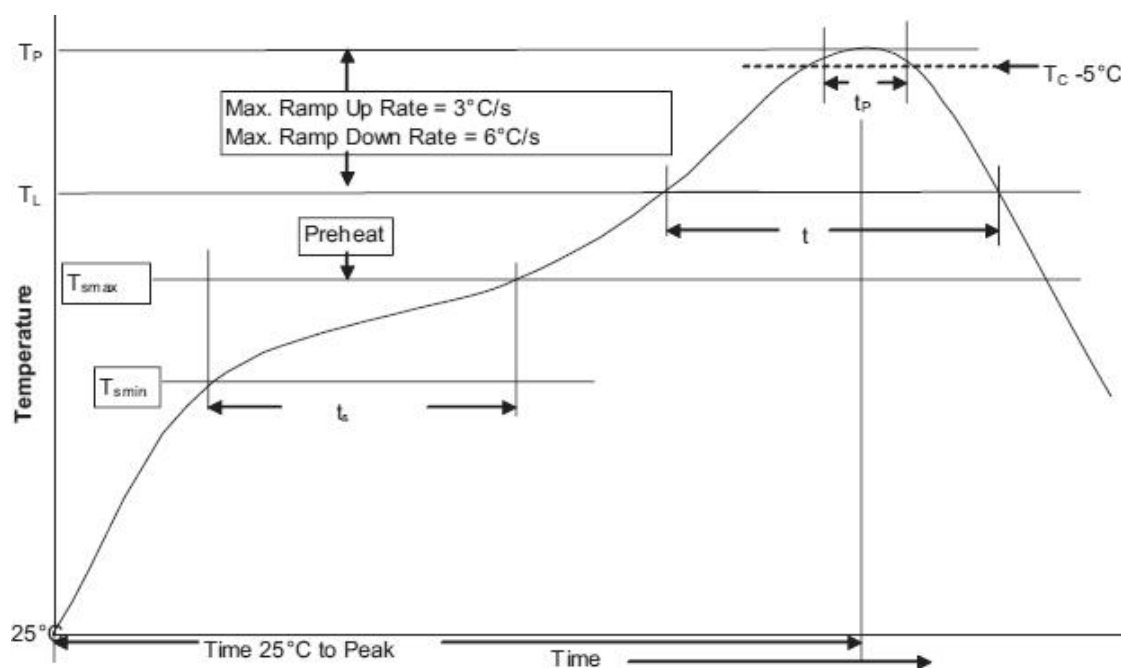


Unit: mm/inches

## Soldering method

- Wave solder
  - Reservoir temperature: 260°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 <sub>smin</sub> )	150°C
	• Temperature max. (T <sub>smax</sub> )	200°C



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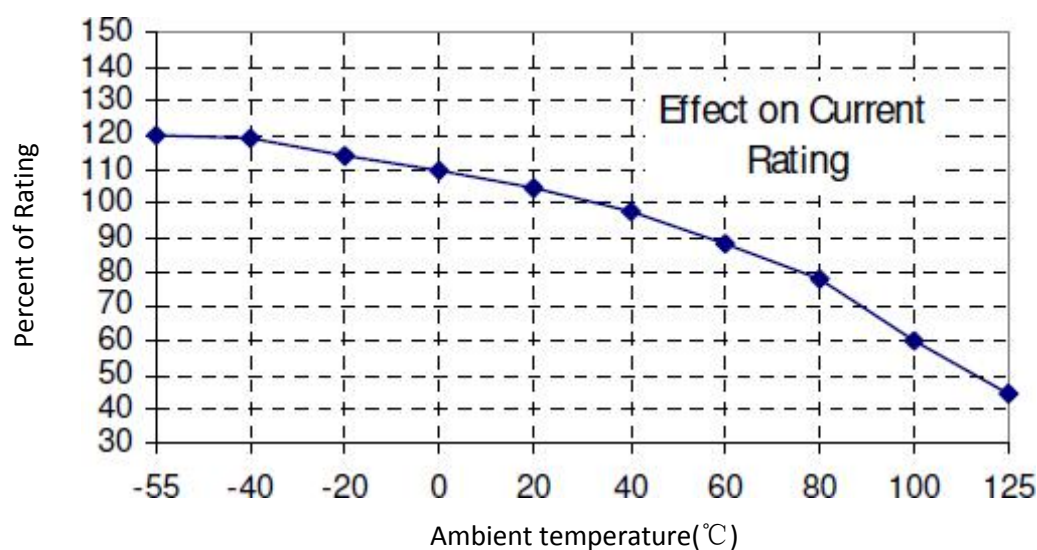


• Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60 - 120 Seconds
Average ramp up rate $T_{smax}$ to $T_p$	3°C / Second Max.
Liquidous temperature ( $T_L$ ) Time at liquidous ( $t_L$ )	217°C 60 - 150 Seconds
Peak package body temperature ( $T_P$ )	260°C
Time ( $t_P$ ) within 5°C of the specified classification 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 ~ 125°C, with proper correction factor applied



## Package

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

--- End Of Document ---

Website: <http://www.jksemi.com>

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