

## 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.



## 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

Electrical Characteristics			
Rated Current	1.0In	2.0In	2.5In
1A~8A	4 hour minimum	1~60 sec	5 sec maximum

Part No.	Rated Voltage	Rated Current (A)	Breaking Capacity (A) <sup>1</sup>	Typical Cold Resistance (mOhms) <sup>2</sup>		Typical Voltage Drop (mV)	Typical Pre-Arching I <sup>2</sup> t (A <sup>2</sup> Sec) <sup>3</sup>	Alpha Mark
	DC			Min	Max			
06 110 1	32V	1	50A	230	380	345	0.011	B/H
06 110 1.5		1.5	50A	115	185	270	0.045	H
06 110 2		2	50A	59	96	160	0.115	K
06 110 2.5		2.5	50A	38	68	145	0.14	L
06 110 3		3	50A	25	45	130	0.28	O
06 110 3.5		3.5	50A	17	31	130	0.5	R
06 110 4		4	50A	15	28	120	0.6	S
06 110 5		5	50A	8	18	110	1.9	T
06 110 6		6	50A	5.5	13	110	2.3	V**
06 110 7		7	50A	5	12	90	3.0	X**
06 110 8	8	50A	4	7.5	80	4.5	Z**	

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

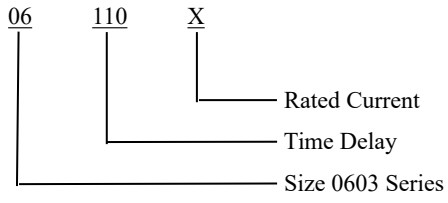
\* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25degrees

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

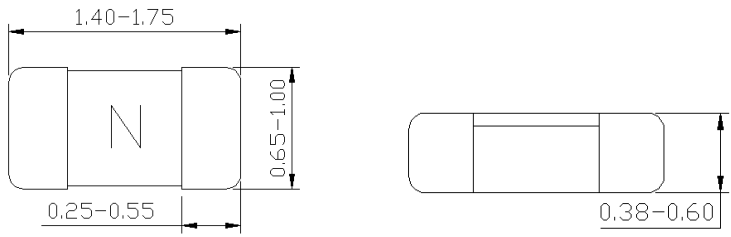
Choice fuse for surge application (USB charger etc.), make sure the I<sup>2</sup>t of fuse is 4 times than surge.

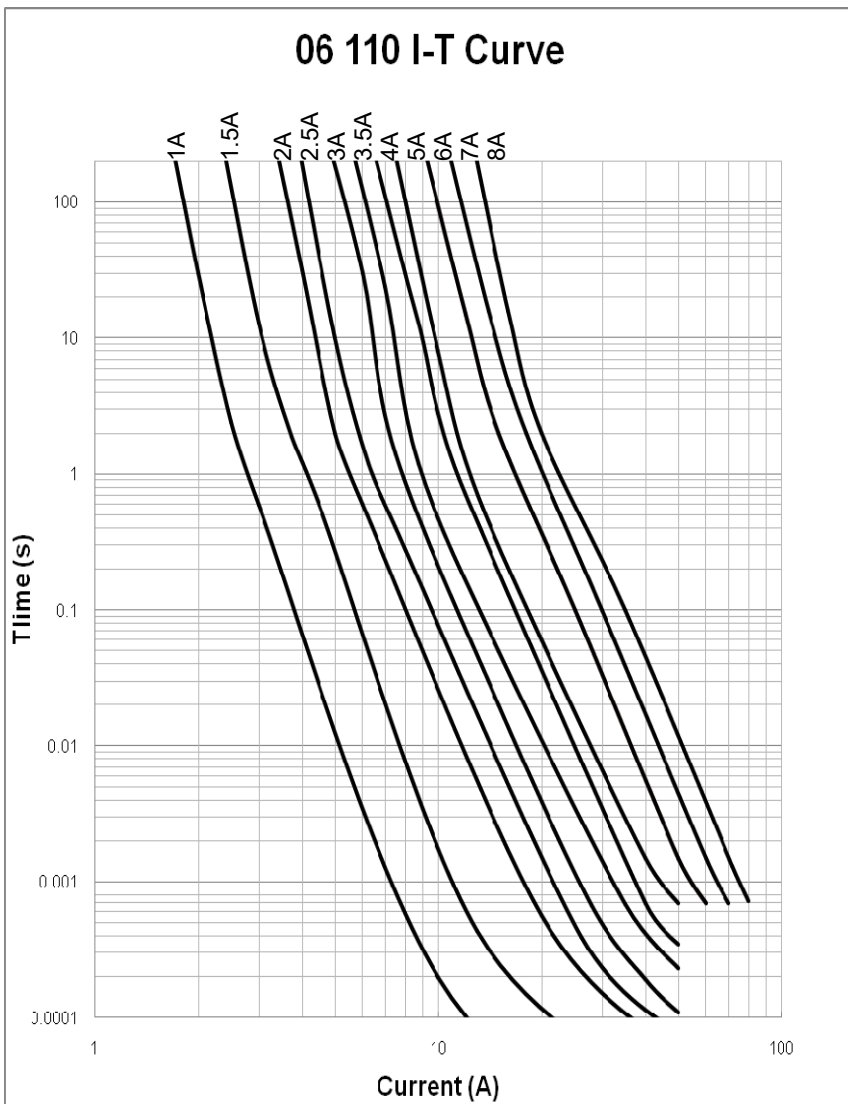
\*\*Different with other ratings, the color of glass cover of 6A, 7A and 8A is BLUE color

\*Part No. Description

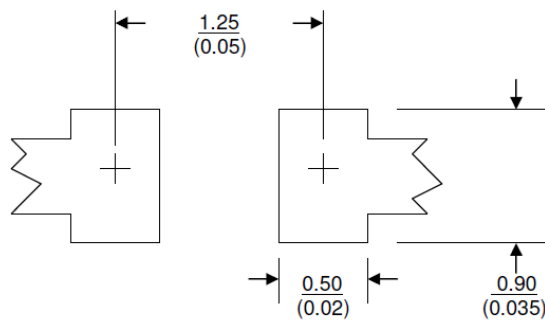


**Dimension** Drawing not to scale (Unit: mm)





**Recommended land pattern**



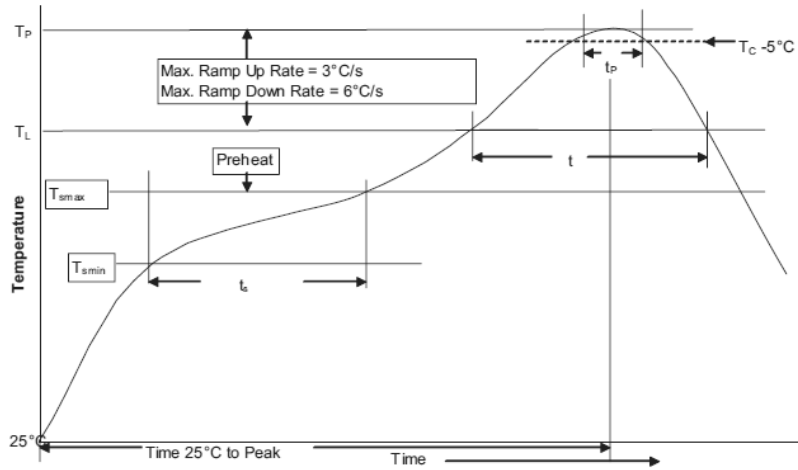
Unit: mm/inches

**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

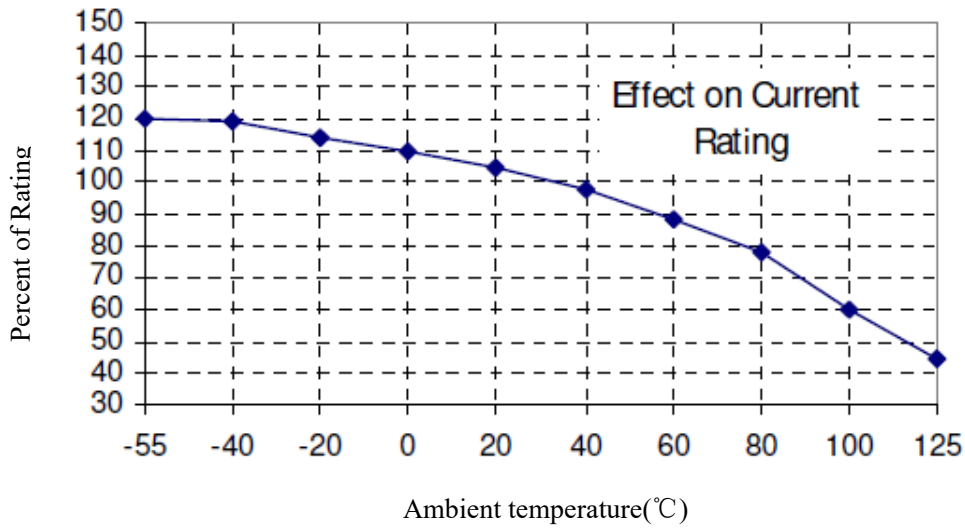


Profile Feature		Lead(Pb) free solder
Preheat and soak	<ul style="list-style-type: none"> <li>• Temperature min.(<math>T_{smin}</math>)</li> <li>• Temperature max. (<math>T_{smax}</math>)</li> <li>• Time (<math>T_{smin}</math> to <math>T_{smax}</math>) (<math>t_s</math>)</li> </ul>	150°C 200°C 60 - 120 Seconds
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 ~ 125°C, with proper correction factor applied



**Environmental Characteristics**

Storage Conditions .....+40 °C Max. 70% RH Max. Packed in original packaging.

**Agency Approvals**

- Agency Approvals: UL、CSA
- Regulation/Standard: RoHS, Reach

**Package information**

Model	Q'ty/Reel
06 110 X	5000 pcs

Note: Reel packaging per EIA-481-1 standard