

# Electric vehicle auxiliary fuses

## 800/750Vdc 50A Max.

### Description

- DC fuse for EV/HEV/ESS
- Stud-mount, optional for other installation
- Excellent DC performance
- Design to EV fuse standard UL248-20
- Reliability performance design refer to ISO8820-8&GB/T31465.6
- Comply RoHS directive

Electrical Characteristics		
% of Ampere Rating (A)	Operating Time (Unit: sec)	
	Min	Max
200%	0.5	100
300%	0.1	15
500%	0.05	1

### Specifications ('YY' means Assembly code)

Ordering P/N	Rated Current (A)	Rated Voltage/ Interrupting rating	Typical cold resistance (mOhms)	Typical voltage drop (mV)	Typical pre- arcing I <sup>2</sup> t (A <sup>2</sup> sec)
ST100802108-5 YY	5	800Vdc/50000A	31	190	35
ST100802108-10 YY	10		12.5	130	120
ST100802108-15 YY	15		7.2	140	405
ST100802108-20 YY	20		5.2	154	1000
ST100802108-25 YY	25		4.0	145	560
ST100802108-30 YY	30		3.1	150	880
ST100802108-40 YY	40	750Vdc/50000A	2.2	148	1760
ST100802108-50 YY	50		1.6	155	3250

\*Temperature Rise <=50K with 70% of rated current

\*\* Typical pre-arcing I<sup>2</sup>t measured at 10In

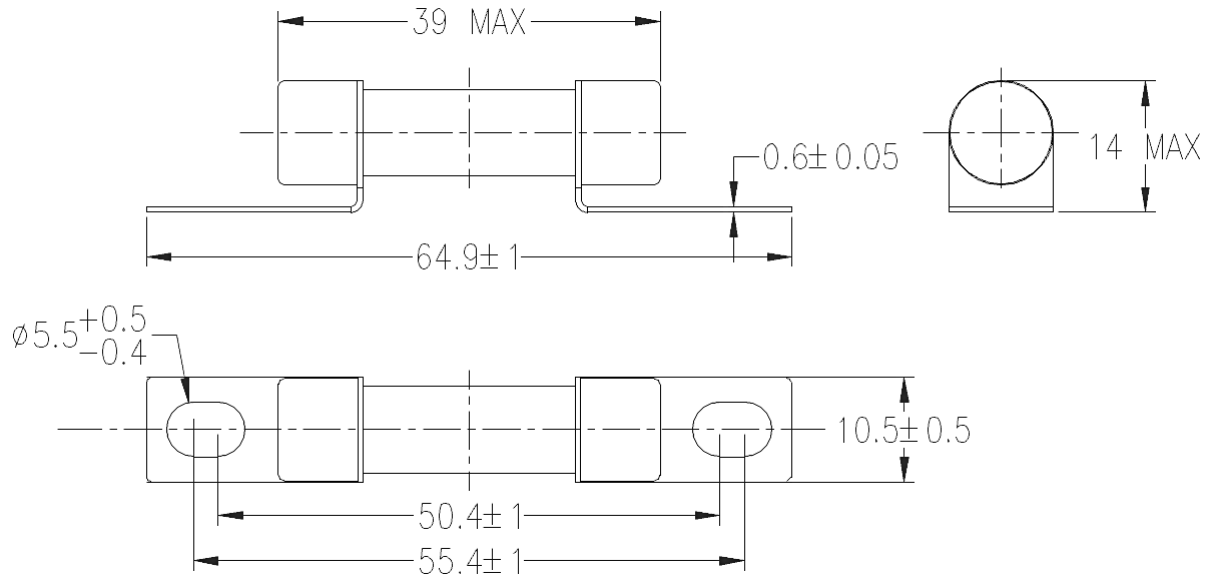
## DC Fuse for EV/HEV

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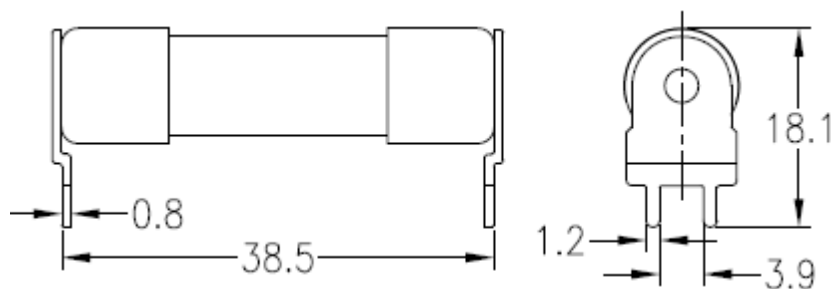
### Dimension (mm)

Assembly Code 'EP'/Ordering code "ST100802-XX EP"



Note: recommend tightening torque is 4.5+/-1.0Nm

Assembly Code 'FP'/Ordering code "ST100802-XX FP";



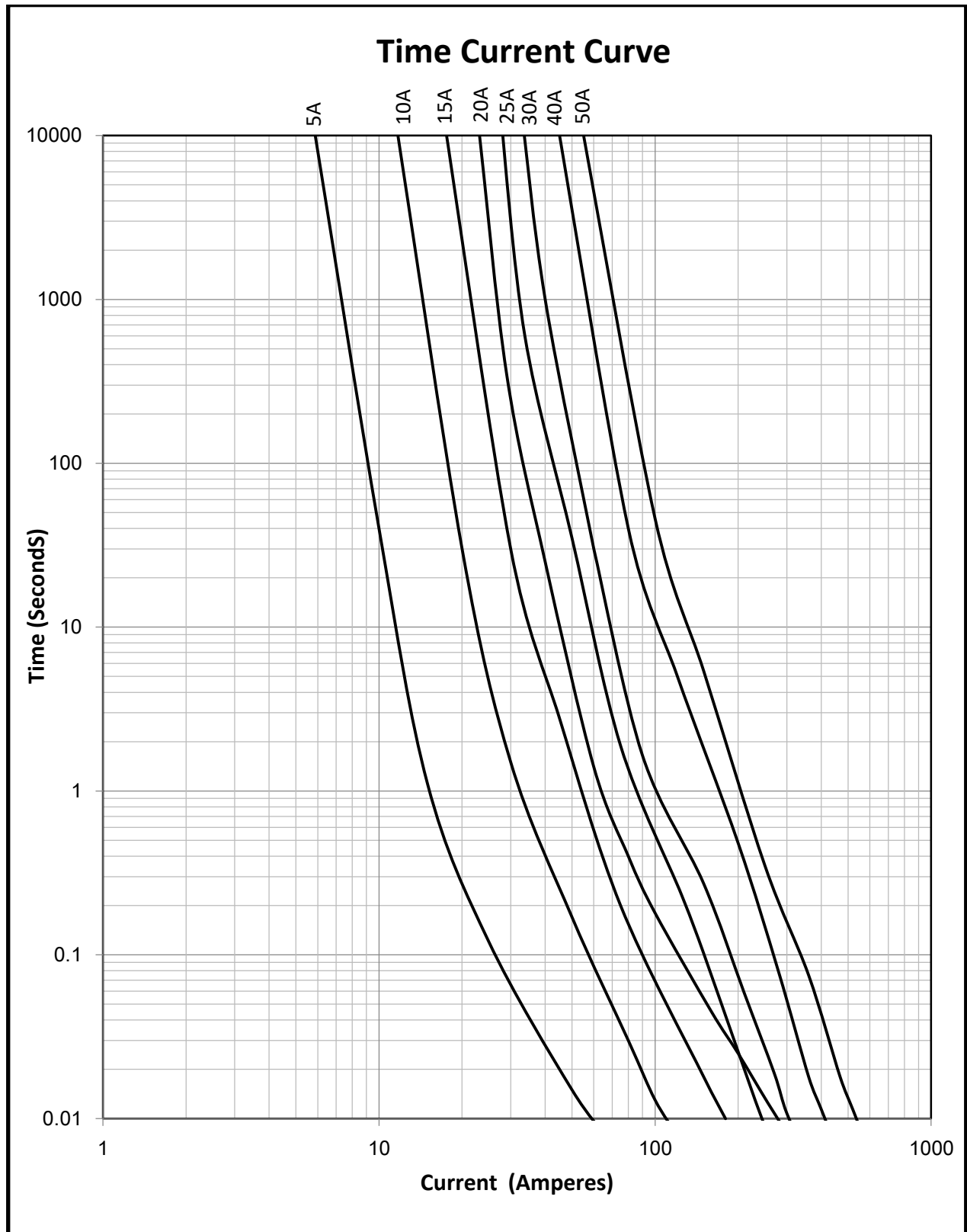
#### Soldering Parameter:

- Wave soldering:  
Solder Pot Temperature: 270°C Max.  
Solder Dwell Time: 10s Max.
- Hand-Soldering (not recommended):  
Solder Iron Temperature: 350°C +/- 5°C  
Heating Time: 5s Max.

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Time-Current Curve



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### Transportation and Storage

During transportation and storage, should avoid water seepage and mechanical damage

### Conditions for operation in service

Where the following conditions apply, fuses complying with this standard are deemed capable of operating satisfactorily without further qualification.

- Normal temperature:  $-5^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ ;
- The altitude of the site of installation of the fuses does not exceed 2 000 m above sea level;
- The air is clean and its relative humidity does not exceed 50% at the maximum temperature of  $40^{\circ}\text{C}$ ;
- Higher relative humidities are permitted at lower temperatures, e.g. 90 % at  $20^{\circ}\text{C}$ ;
- Under these conditions, moderate condensation may occasionally occur due to variation in temperature.

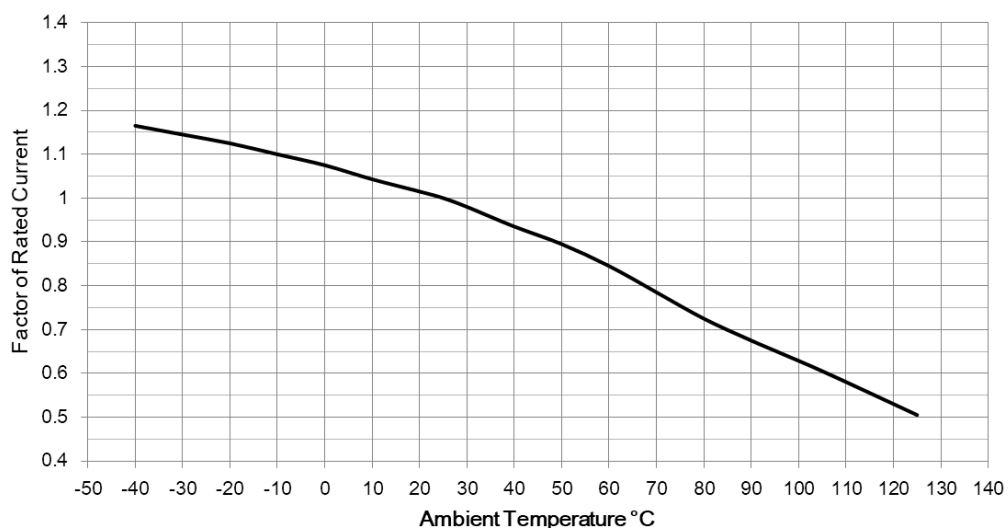
For operation condition **other than** above, please contact manufacturer.

### Vibration

Meet JASO D622:2006 Section 6.3.3 Vibration durability test requirement, can be use on Electrical Vehicle application

### Temperature Rerating Curve

Operating Temperature:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ , with proper rerating factor applied



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