

# Electric vehicle auxiliary fuses

## 500VAC/DC, 10A ~ 50A

### Description

- General purpose fuse for EV/HEV
- Compact bolt down and thru-hole terminals
- 500Vdc ideal for EV or HEV application
- Excellent DC performance
- Design refer to JASO D622:2006

Electrical Characteristics		
% of Ampere Rating (A)	Operating Time (Unit: s)	
	Min	Max
200%	1	300
300%	0.2	30
500%	0.1	10

### 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)
				At 0.5I <sub>n</sub>	At 1.0I <sub>n</sub>	
ST100501-10YY	10	500Vac/10000A 500Vdc/20000A	12	60	150	120
ST100501-15YY	15		7.2	60	140	350
ST100501-16YY	16		7.18	60	145	410
ST100501-20YY	20		5.1	60	130	1000
ST100501-25YY	25		4.25	60	135	1350
ST100501-30YY	30		3.15	50	130	1400
ST100501-32YY	32		3.10	50	128	1450
ST100501-35YY	35		2.80	50	125	1200
ST100501-40YY	40		2.40	50	122	2000
ST100501-50YY	50		1.50	50	110	2500

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

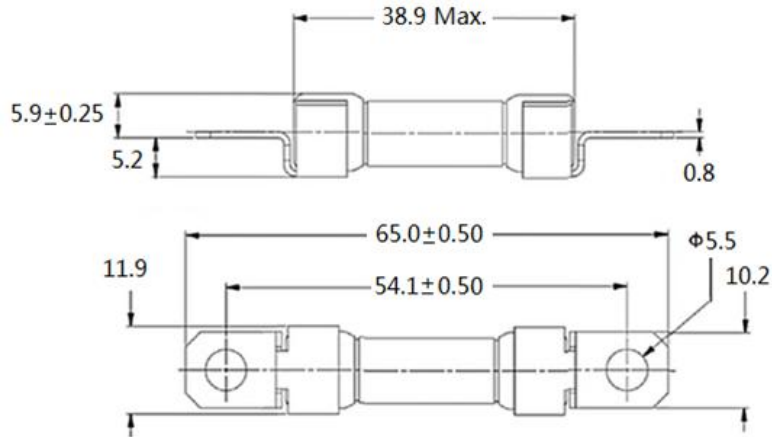
\*\* Typical pre-arcing I<sup>2</sup>t measured at 10I<sub>n</sub>

# Electric vehicle auxiliary fuses

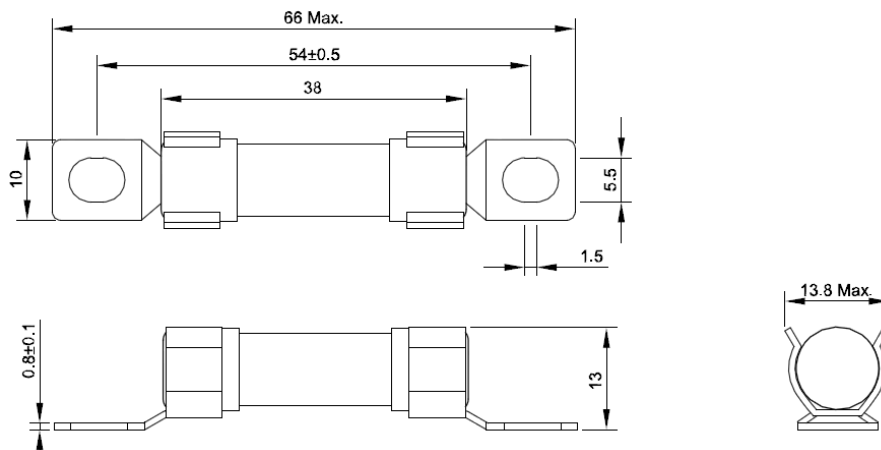
## 500VAC/DC, 10A ~ 50A

### Dimension (mm)

Assembly Code 'AP'

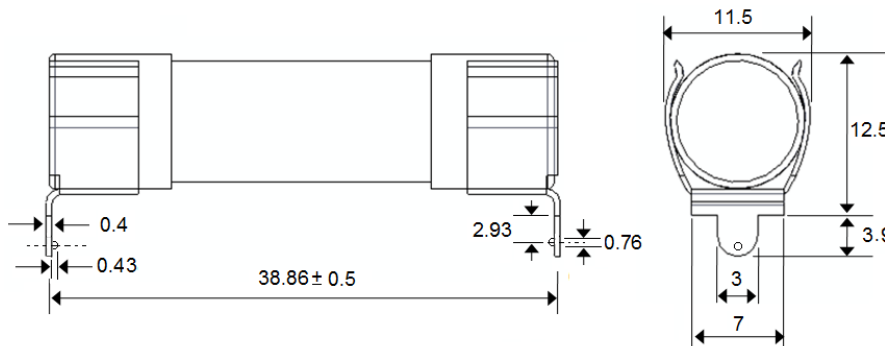


Assembly Code 'BP'



Note: For AP & BP, recommend tightening torque is 4.5+/-1.0Nm;

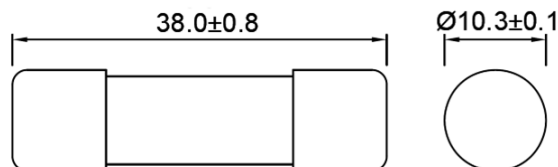
Assembly Code 'CP'



#### 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.

Cylindrical



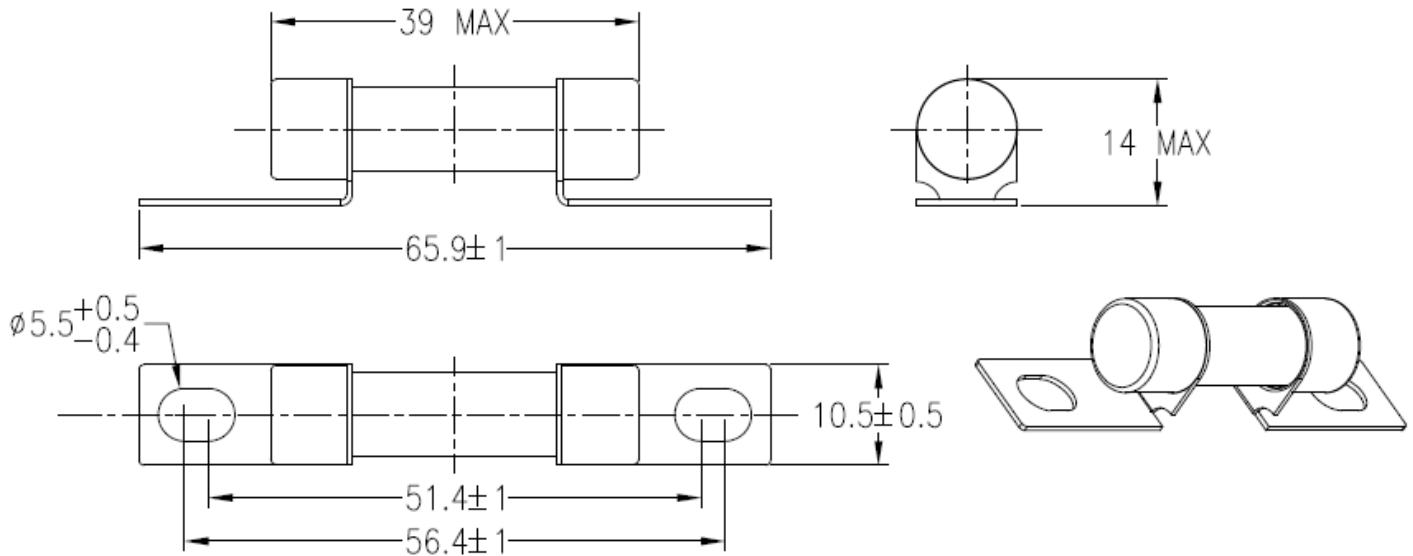
## DC Fuse for EV/HEV

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## 500VAC/DC, 10A ~ 50A

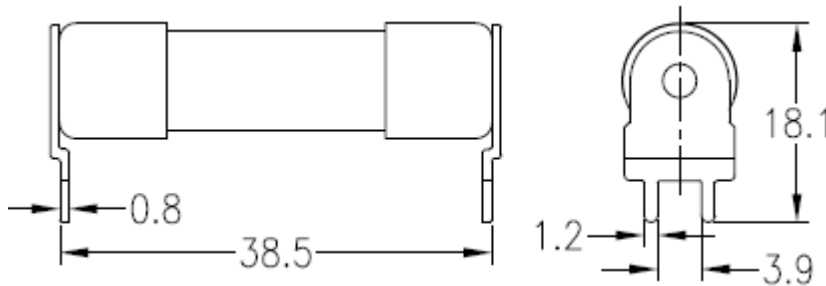
### Dimension (mm)

Assembly Code 'EP' / Ordering code "ST100501-xxEP"



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

Assembly Code 'FP' / Ordering code "ST100501-xxFP";



#### Soldering Parameter:

➤ Wave soldering:

Solder Pot Temperature: 270°C Max.

Solder Dwell Time: 10s Max.

➤ Hand-Soldering (not recommended):

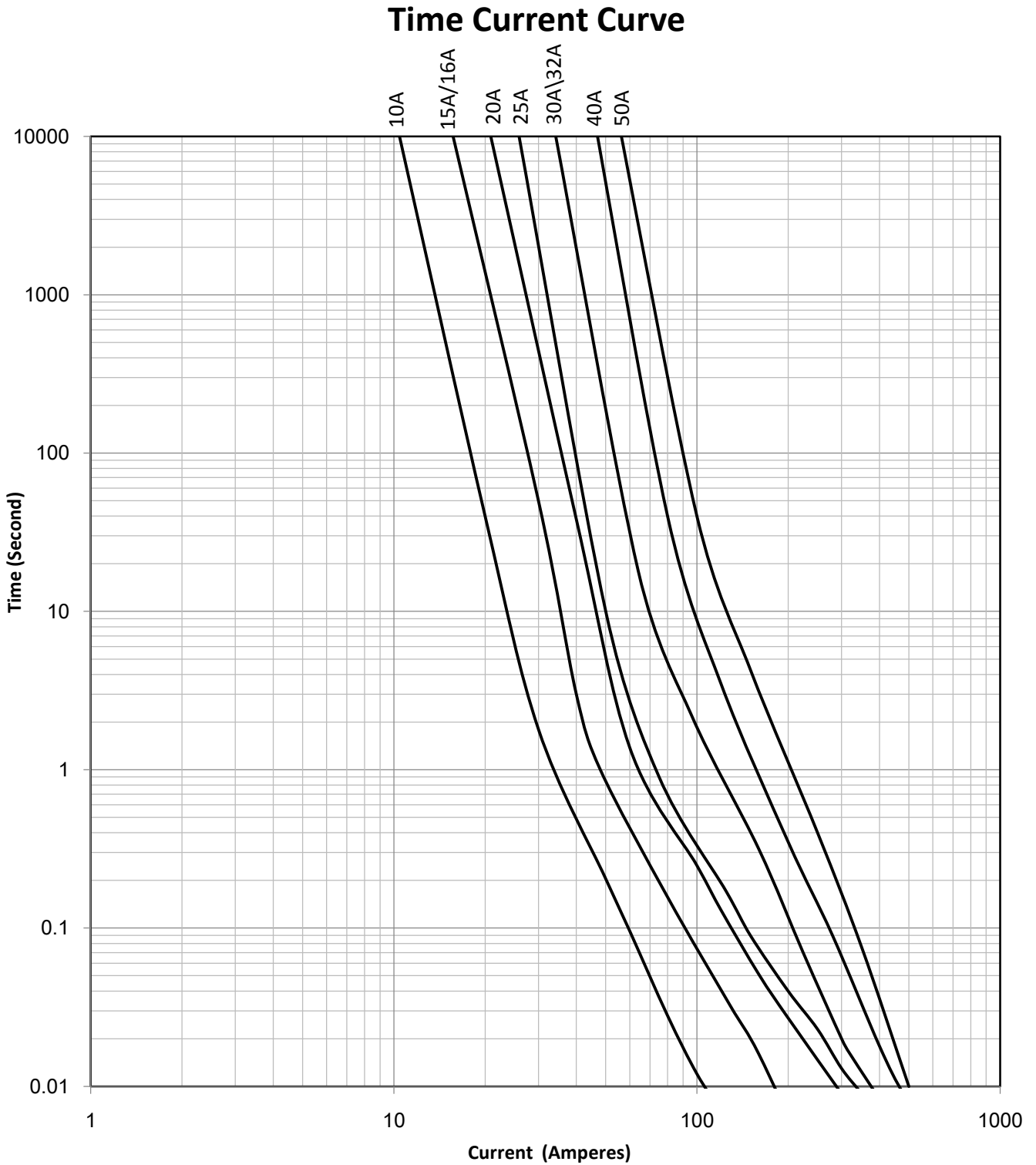
Solder Iron Temperature: 350°C +/- 5°C

Heating Time: 5s Max.

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## 500VAC/DC, 10A ~ 50A

### Time-Current Curve



**DC Fuse for EV/HEV**

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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°C to 40°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°C;
- Higher relative humidity are permitted at lower temperatures, e.g. 90 % at 20°C;
- Under these conditions, moderate condensation may occasionally occur due to variation in temperature.

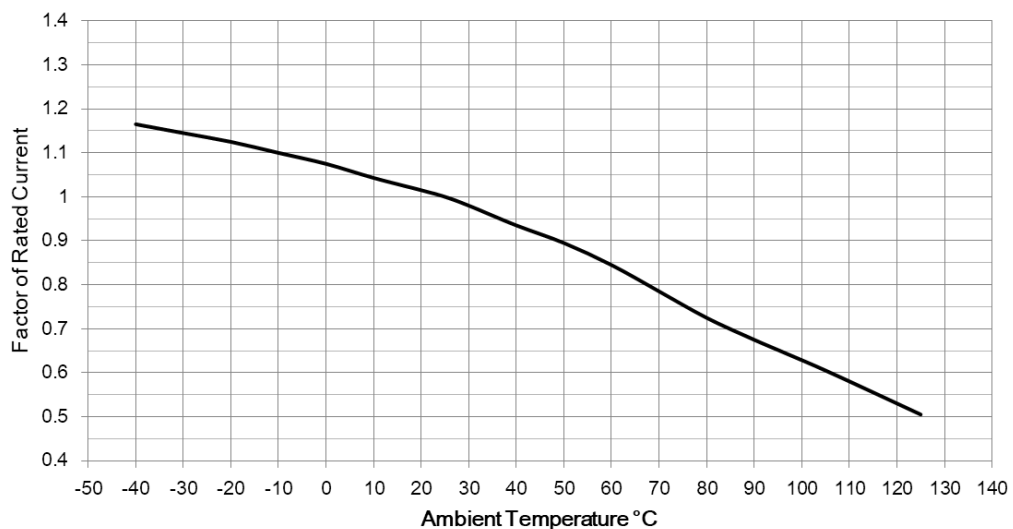
For operation condition **other than** above, please contact manufacturer.

### 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°C to +125°C, with proper rerating factor applied



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