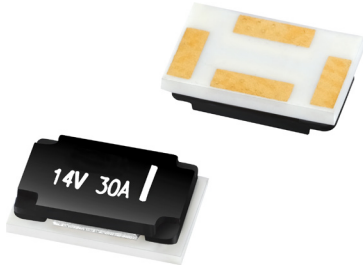


# SMD Fuses

## 5432, 30A

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RoHS  
Compliant



### Description

These Series fuse is a three terminals surface mountable battery protector designed to against both over current and over voltage, element can not only cut off the circuit when over current issue happens, but also the heater can generate heat to blow the fuse once over voltage detected by IC or FET.

### Application

- Moped
- Lawn mower
- Energy storage batteries
- Vacuum cleaner
- Electric scooters
- Electric bicycles
- BMS
- Robot

### Features

- Protect Li-ion battery from over current and overcharge
- Substrate embedded Resistor
- Surface mounted fuse
- Halogen free / Sb free
- Fast response time

### Specification Table

Part Number	Applicable cells in series	Rated Current (A)	Rated Voltage (V DC)	Breaking Capacity (A)	Fuse Resistance (mΩ)	Operating Voltage (V)	Heater Resistance (Ω)
MCATF543212V30A	3 cells	30	62	80	0.5 ~ 2.5	9.9 ~ 13.5	4.2 ~ 7
MCATF543214V30A	4 cells					13.4 ~ 18.4	7.7 ~ 12.9
MCATF543220V30A	5 cells					17.1 ~ 23.5	12.6 ~ 21
MCATF543230V30A	7 cells					23 ~ 31.5	22.6 ~ 37.7
MCATF543235V30A	8 cells					26.4 ~ 36	29.5 ~ 49.8
MCATF543240V30A	9-10 cells					34.2 ~ 46.9	63.75 ~ 86.25
MCATF543250V30A	13-14 cells					49 ~ 62	130.05 ~ 175.95

### Electrical Characteristics

Items	Conditions	Requirements / Result
Current carrying capacity	Apply 100% of its rated current.	No melting.
Fusing time	Apply 200% of its rated current.	The fuse shall be melt within 1min.
	The minimum value of the operating voltage range of each model shall be applied to heater.	
Operating temperature range	The following examinations are executed respectively within the range from -10 to 65°C. <ul style="list-style-type: none"> <li>• Fusing time test</li> <li>• Current carrying capacity test</li> </ul>	The fuse shall be passed each test.

\*Electrical characteristics are influenced by thermal capacity of PCB, parts, pattern width, etc. Therefore you should check them on your PCB.

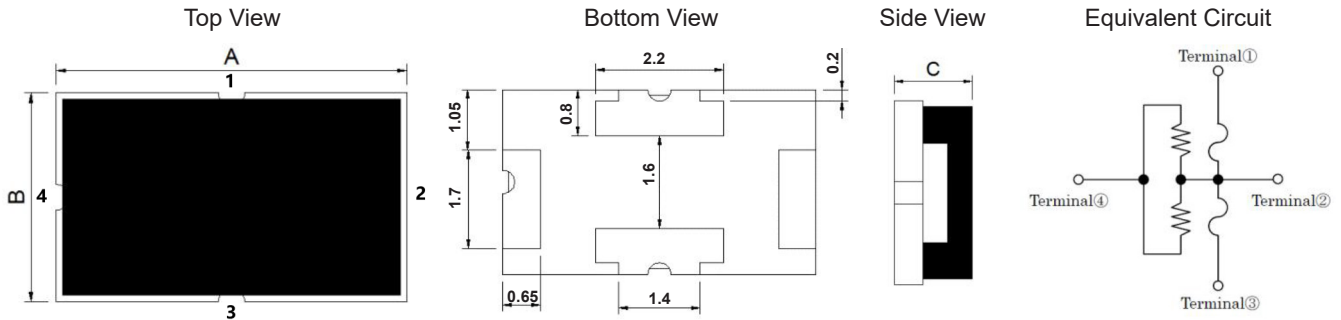
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# SMD Fuses 5432, 30A

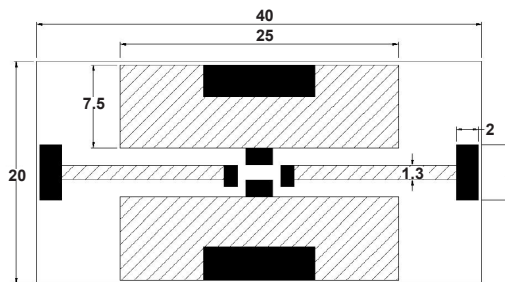
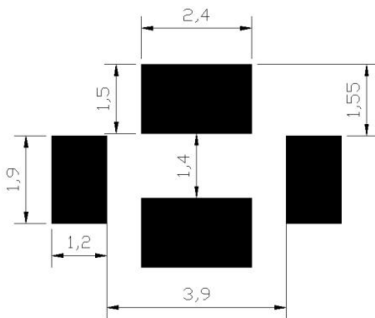
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## Diagram



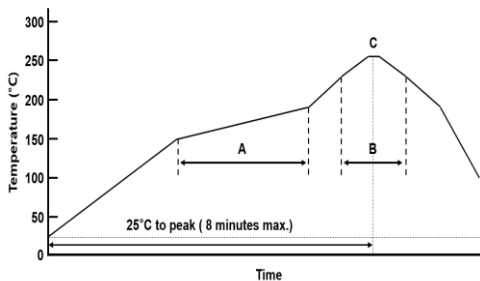
Code	Spec.(mm)
A	5.4 ± 0.3
B	3.2 ± 0.3
C	1.35 Max.
*Without extra notification the tolerance is ± 0.1mm	

## Recommended Solder Land Pattern and PCB



Materials	Width (A)	Thickness	Copper Thickness	Wires
FR-4	25mm	0.6mm	2.0 OZ	AWG10

## Reflow Profile Recommended



Code	Temperature (°C)	Time (s)
A (Pre-Heating)	150~190	90 ±30
B (Heating)	Over 230	25 ±5
C (Peak)	255 ± 5	Max. 5

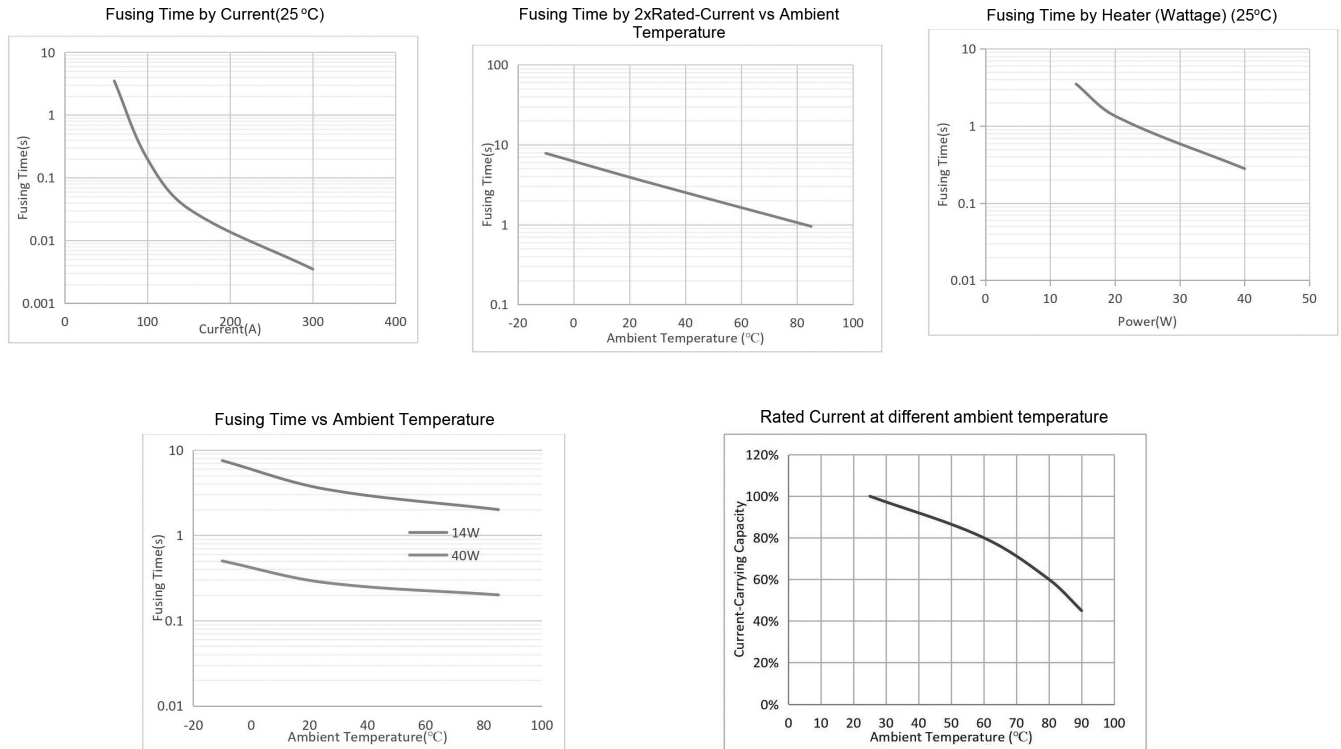
Dimensions : Millimetres

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# SMD Fuses 5432, 30A

## Typical Performance Data (Ambient Temperature: 25°C)



## Part Number Table

Description	Part Number
SMD Fuse, 5432 Series, 30A, 12V	MCATF543212V30A
SMD Fuse, 5432 Series, 30A, 14V	MCATF543214V30A
SMD Fuse, 5432 Series, 30A, 20V	MCATF543220V30A
SMD Fuse, 5432 Series, 30A, 30V	MCATF543230V30A
SMD Fuse, 5432 Series, 30A, 35V	MCATF543235V30A
SMD Fuse, 5432 Series, 30A, 40V	MCATF543240V30A
SMD Fuse, 5432 Series, 30A, 50V	MCATF543250V30A

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