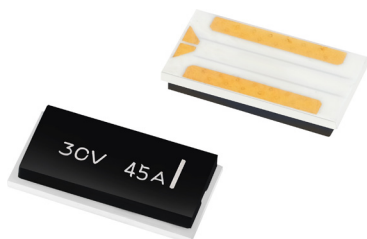


SMD Fuses

9550, 30A

multicompPRO

**RoHS
Compliant**



Description

This Series is a surface mountable battery protector designed to protect against both overcurrent and overcharging. Fuse can cut off the circuit when overcurrent occurs. Also, combining with IC and FET, the embedded heater can generate heat to blow the fuse element to achieve overvoltage protection.

Application

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

Features

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

Specifications

Part Number	Applicable cells in series	Rated Current (A)	Rated Voltage (Vdc)	Breaking Capacity (A)	Fuse Resistance (mΩ)	Operating Voltage (V)	Heater Resistance (Ω)
MCATF955006V30A	1-2 cells	30	80	80	1.1 ~ 1.9	4 ~ 9.2	2.26 ~ 2.91
MCATF955012V30A	3 cells					8.4 ~ 13.8	5.08 ~ 12.83
MCATF955018V30A	4-5 cells					10.5 ~ 23.5	14.73 ~ 20.05
MCATF955030V30A	6-9 cells					20.2 ~ 41.4	45.71 ~ 74.19
MCATF955040V30A	10-14 cells					28 ~ 62	102.6 ~ 142.5
MCATF955050V30A	14-16 cells					39.6 ~ 72	138.3 ~ 285.1

* After soldering, R1&R2 in parallel connection, the heater resistance is half of above value.

SMD Fuses

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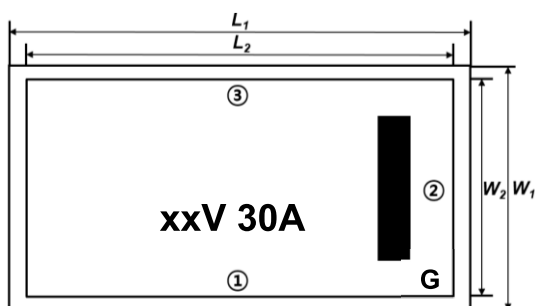
Electrical Characteristics

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. • Fusing time test • Current carrying capacity test	The fuse shall be passed each test.

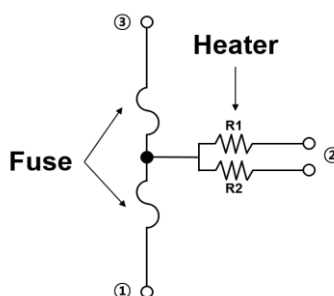
*Electrical characteristics are influenced by thermal capacity of PCB, parts, pattern width, etc. Therefore you should check them on your PCB.

Dimensions

Top View



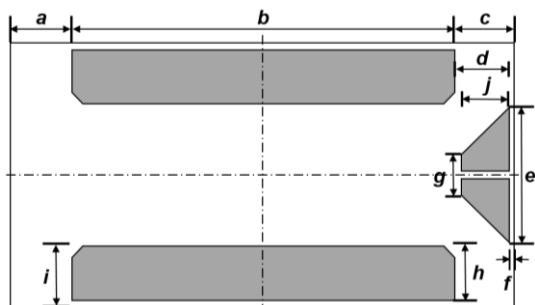
Equivalent Circuit



Dimension & Weight

Code	Spec.(mm)
L1	9.5 ± 0.2
L2	8.9 ± 0.1
W1	5 ± 0.2
W2	4.4 ± 0.1
T	1.4 ± 0.1
T1	0.85
T2	0.55
a	1.15
b	7.2
c	1.15
d	1.05
e	2.55
f	0.1
g	0.75
h	1
i	1.15
j	0.9
* Without extra notification the tolerance is ± 0.1mm	
* Weight: 0.142± 5% g/pc	

Bottom View



Side View



Dimensions : Millimetres

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

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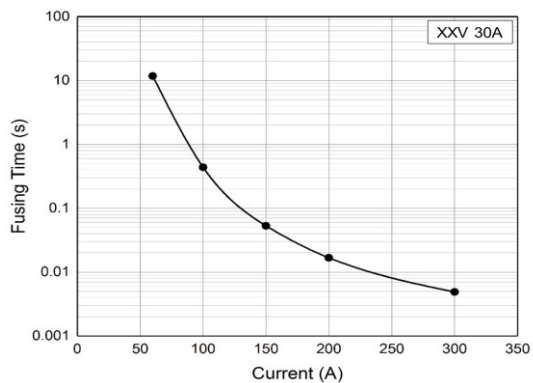
SMD Fuses

9550, 30A

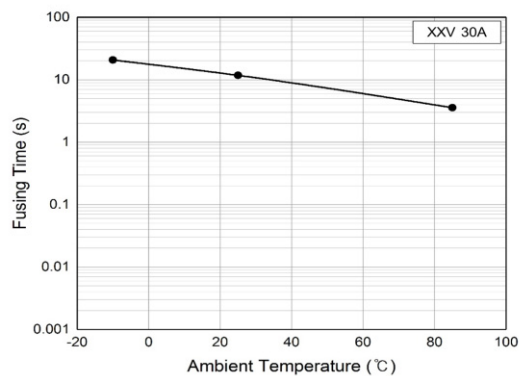
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Typical Performance Data

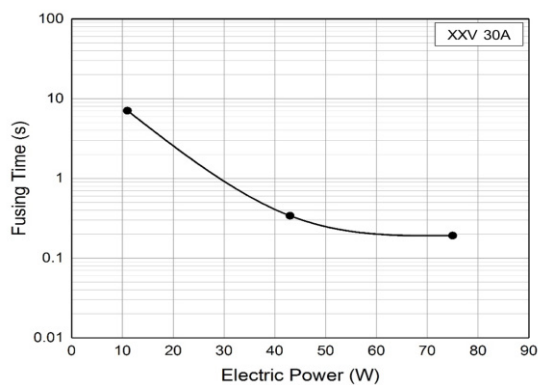
Fusing Time by Current



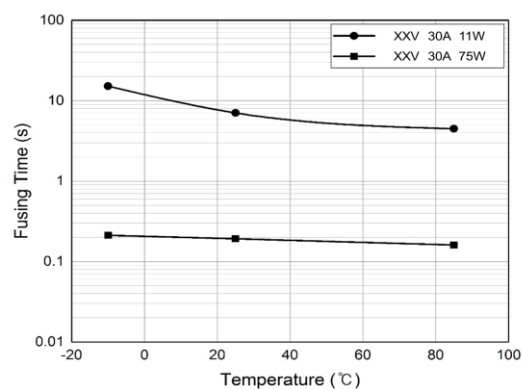
Fusing Time by 2xRated-Current vs Ambient Temperature



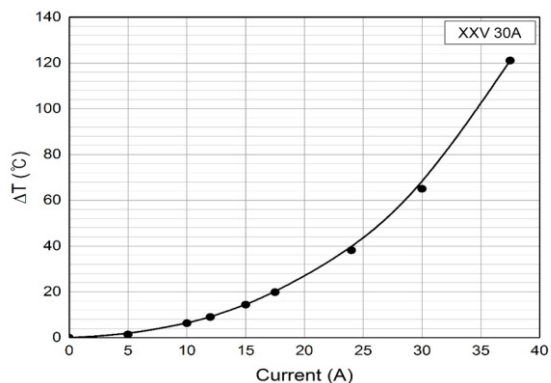
Fusing Time by Heater (Wattage) F



using Time vs Ambient Temperature



Temperature Rise by Current



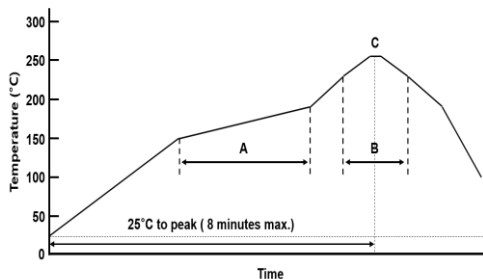
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SMD Fuses 9550, 30A

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Mounting Parameters

Reflow Profile Recommended



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

Part Number Table

Description	Part Number
SMD Fuses, 6V	MCATF955006V30A
SMD Fuses, 12V	MCATF955012V30A
SMD Fuses, 18V	MCATF955018V30A
SMD Fuses, 30V	MCATF955030V30A
SMD Fuses, 40V	MCATF955040V30A
SMD Fuses, 50V	MCATF955050V30A

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