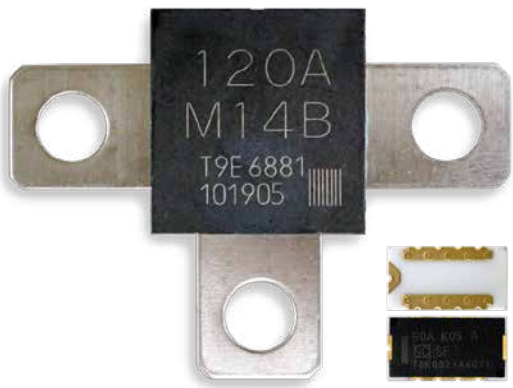


Self Control Protector (SCP)

Li-ion battery secondary protection fuse

Product Name	SFR series	SFJ series	SFH series
	SFK series	SFM series	

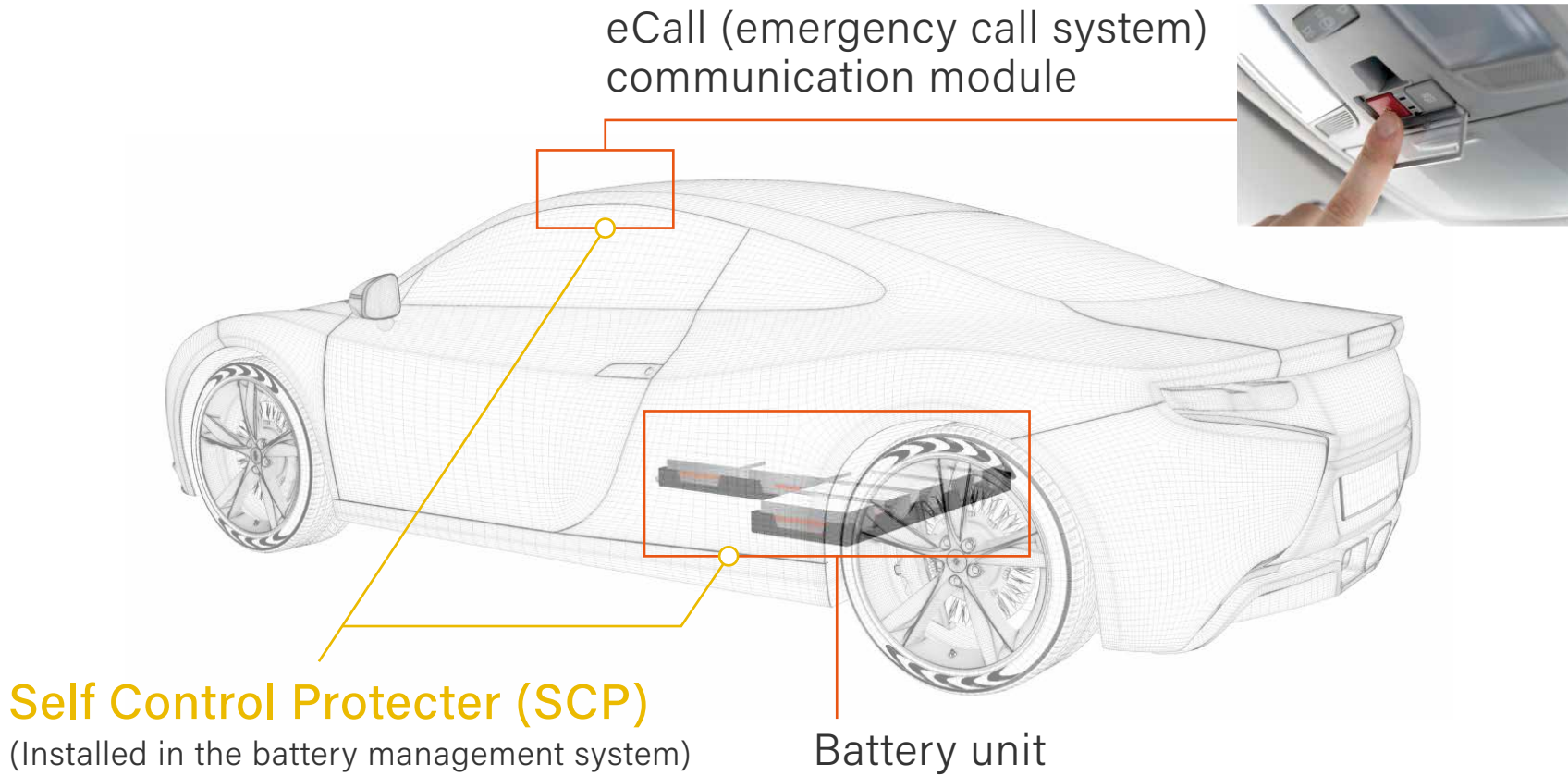
Features



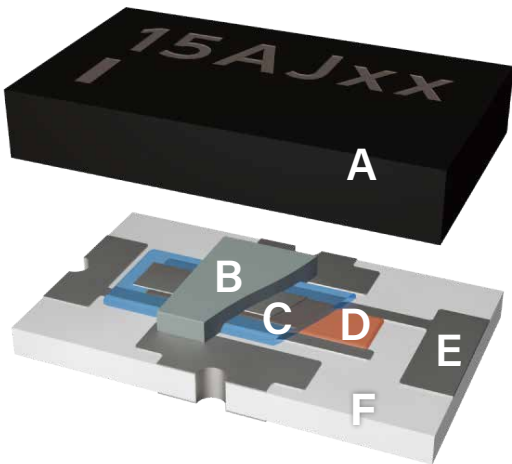
- Protection of Li-ion rechargeable battery from overcharge and overcurrent
- Small, thin and surface mountable
- Wide lineup for variety of Li-ion battery applications

Applications

Devices equipped with a Li-ion battery



Structure

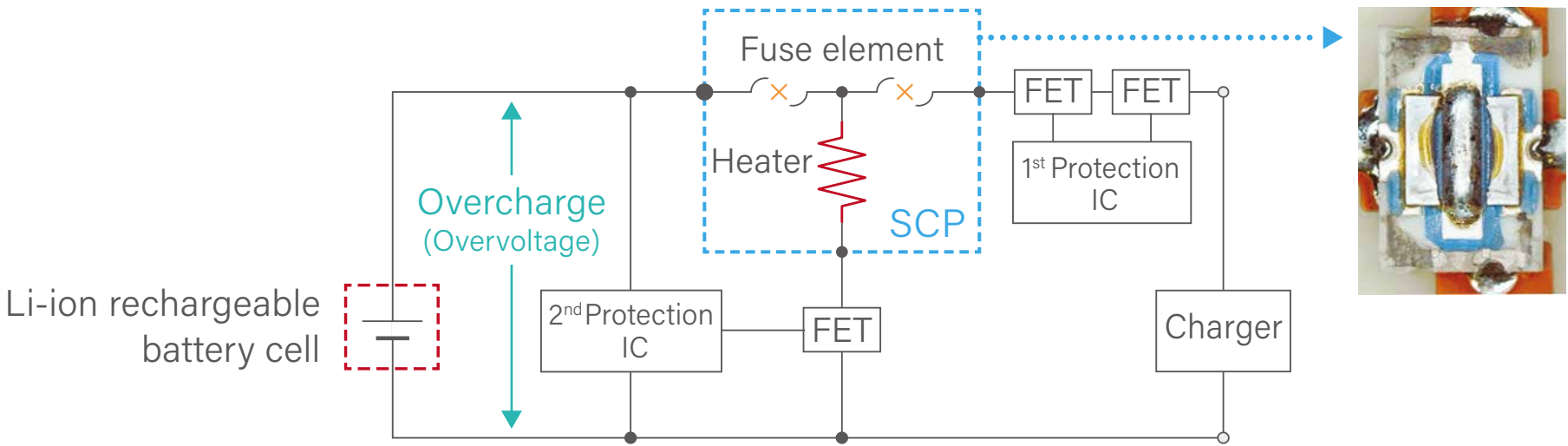


- (A) Cap
- (B) Fuse element
- (C) Insulator
- (D) Heater
- (E) Electrodes
- (F) Ceramic substrate

Overcharge and overcurrent protection

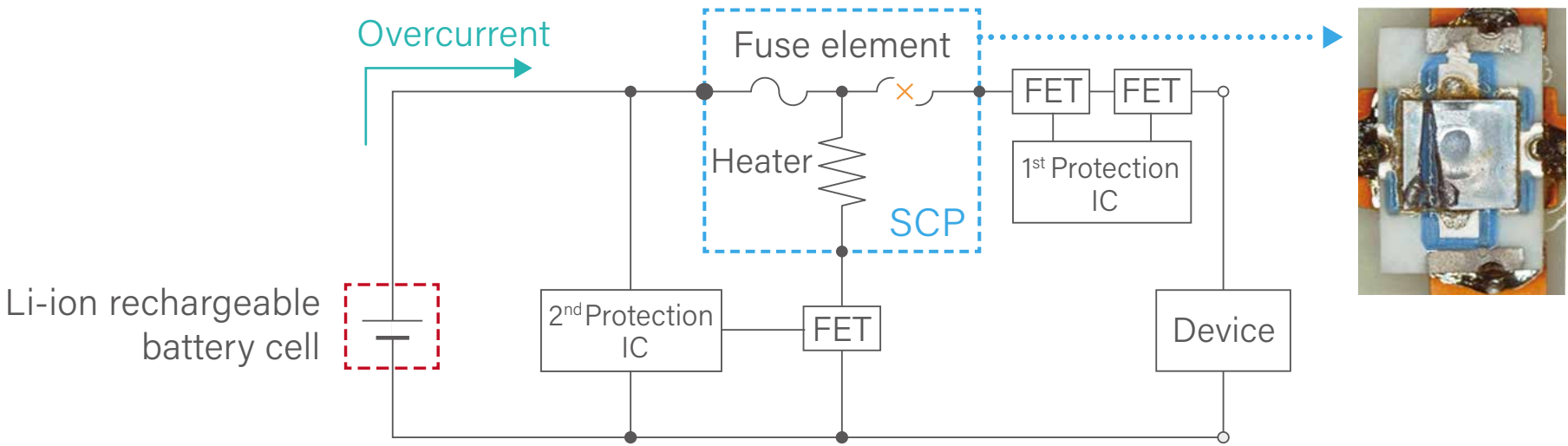
Example of overcharge protection

When overcharged, the heater becomes activated and melts the fuse element. The current stops flowing through the heater as soon as the charging circuit is cut off.



Example of overcurrent protection

Overcurrent melts the fuse element directly to stop the current.



Specifications

SFR series 1.8 mm x 2.7 mm x 0.75 mm

Item name	SFR-0405	SFR-0805	SFR-1205	SFR-1405	SFR-0412C	SFR-0812C
Applicable cells in series	1	2	3	4	1	2
Rated current	5 A				12 A	

SFJ series 4.0 mm x 3.0 mm x 0.85 mm

Item name	SFJ-0412	SFJ-0812	SFJ-1212	SFJ-1412
Applicable cells in series	1	2	3	4
Rated current	12 A			

Item name	SFJ-0415T	SFJ-0815T	SFJ-1215T	SFJ-1415T	SFJ-2015T
Applicable cells in series	1	2	3	4	5
Rated current	15 A				

Item name	SFJ-0422	SFJ-0822	SFJ-1222	SFJ-1422	SFJ-2022
Applicable cells in series	1	2	3	4	5
Rated current	22 A				

SFH series 5.4 mm x 3.2 mm x 1.15 mm

Item name	SFH-1230	SFH-1430	SFH-2030	SFH-3030	SFH-4030	SFH-5030
Applicable cells in series	3	4	5	7	9 - 10	13 - 14
Rated current	30 A					

SFK series 9.5 mm x 5.0 mm x 2.0 mm

Item name	SFK-0630	SFK-1230	SFK-1830	SFK-3030	SFK-4030	SFK-5030
Applicable cells in series	1 - 2	3	4 - 5	6 - 9	10 - 14	15 - 17
Rated current	30 A					

Item name	SFK-1245	SFK-1445	SFK-2045	SFK-3045	SFK-4045	SFK-5045
Applicable cells in series	3	4	5	6 - 7	9 - 10	12 - 14
Rated current	45 A					

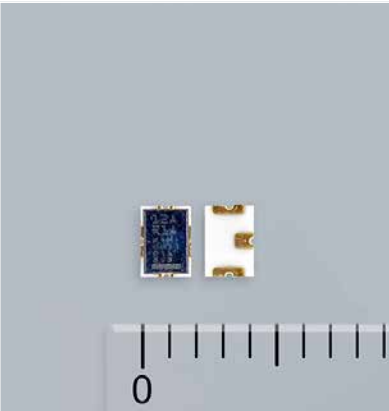
Item name	SFK-1260	SFK-1460	SFK-2060	SFK-3060	SFK-4060	SFK-5060
Applicable cells in series	3	4	5	6 - 7	9 - 10	12 - 14
Rated current	60 A					

SFM series (screw-fastened type) 40.0 mm x 29.4 mm x 6.0 mm

Item name	SFM-12120	SFM-14120	SFM-20120	SFM-30120	SFM-40120	SFM-50120
Applicable cells in series	3	4	5	6 - 7	8 - 11	12 - 14
Rated current	120 A					

SFR series

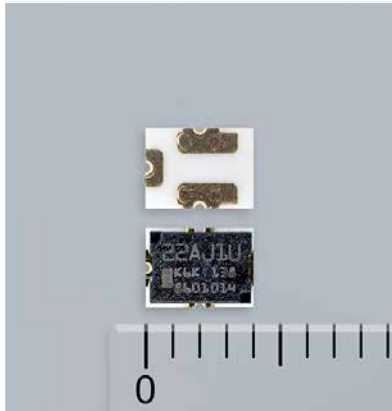
5A 12A



1.8 x 2.7 x 0.75 mm

SFJ series

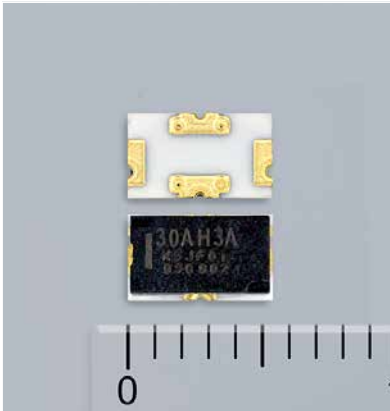
12A 15A 22A



4.0 x 3.0 x 0.85 mm

SFH series

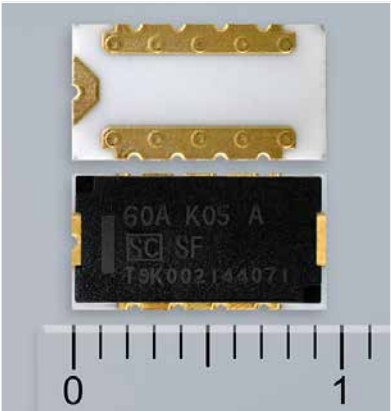
30A



5.4 x 3.2 x 1.15~1.3 mm

SFK series

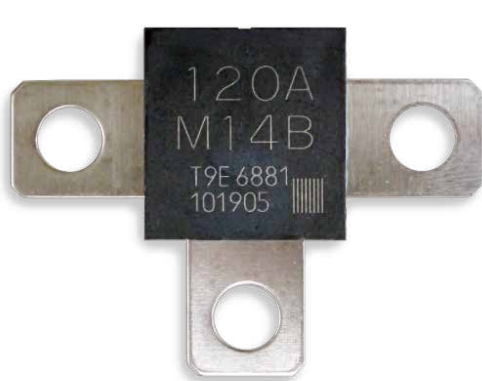
30A 45A 60A



9.5 x 5.0 x 2.0 mm

SFM series

120A



40.0 x 29.4 x 6.0 mm

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The document was created in September 2021.