

Axial Leaded PTC FSR Series



Application:

Rechargeable battery packs
Lithium cell and battery packs

Product Features:

Low profile, Solid state

Operation Current: 1.2A~4.2 A

Maximum Voltage: 15V& 30V

Temperature Range: -40°C to 85°C

Agency Recognition: UL (E211981)

TÜV (R3-50004084)

Electrical Characteristics(23°C)

Part Number	Fig	Hold Current	Trip Current	Rated Voltage	Maximum Current	Typical Power	Resistance Tolerance		
							R _{MIN}	R _{MAX}	R _{1MAX}
		I _H , A	I _T , A	V _{MAX} , Vdc	I _{MAX} , A	P _d , w	Ω	Ω	Ω
FSR120	1	1.20	2.70	15	100	1.2	0.085	0.160	0.220
FSR120S	2	1.20	2.70	15	100	1.2	0.085	0.160	0.220
FSR175	1	1.75	3.80	15	100	1.5	0.050	0.090	0.120
FSR175S	2	1.75	3.80	15	100	1.5	0.050	0.090	0.120
FSR200	1	2.00	4.40	30	100	1.9	0.030	0.060	0.100
FSR350	1	3.50	6.30	30	100	2.5	0.017	0.031	0.050
FSR420	1	4.20	7.60	30	100	2.9	0.012	0.024	0.040

I_H=Hold current-maximum current at which the device will not trip at 23°C still air.

I_T=Trip current-minimum current at which the device will always trip at 23°C still air.

V_{MAX}=Maximum voltage device can withstand without damage at its rated current.

I_{MAX}= Maximum fault current device can withstand without damage at rated voltage (V max).

P_d=Maximum power dissipated from device when in the tripped state in 23°C still air environment.

R_{MIN}=Minimum device resistance at 23°C.

R_{1MAX}=Maximum device resistance at 23°C, 1 hour after tripping.

Physical specifications:

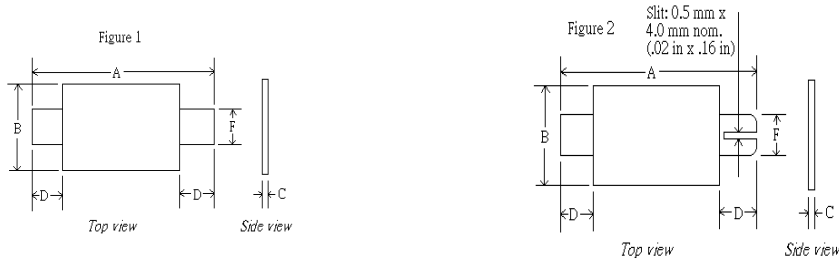
Lead material:0.13mm nominal thickness, quarter-hard nickel.

Insulating material: Polyester tape.

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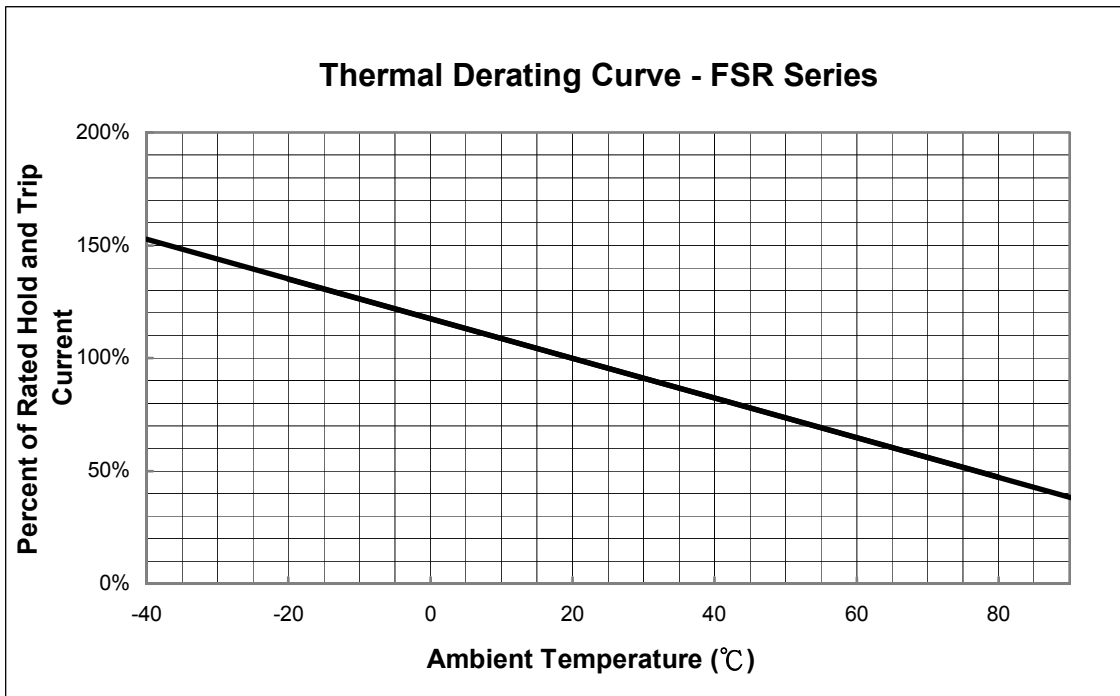


FSR Product Dimensions (Millimeters)



Part Number	Fig	A		B		C		D		F	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
FSR120	1	19.9	22.1	4.9	5.2	0.6	1.0	5.5	7.5	3.9	4.1
FSR120S	2	19.9	22.1	4.9	5.2	0.6	1.0	5.5	7.5	3.9	4.1
FSR175	1	20.9	23.1	4.9	5.2	0.6	1.0	4.1	5.5	3.9	4.1
FSR175S	2	20.9	23.1	4.9	5.2	0.6	1.0	4.1	5.5	3.9	4.1
FSR200	1	21.3	23.4	10.2	11.0	0.5	1.1	5.0	7.6	4.8	5.4
FSR350	1	28.4	31.8	13.0	13.5	0.5	1.1	6.3	8.9	6.0	6.6
FSR420	1	30.6	32.4	12.9	13.6	0.5	1.1	5.0	7.5	6.0	6.7

Thermal Derating Curve

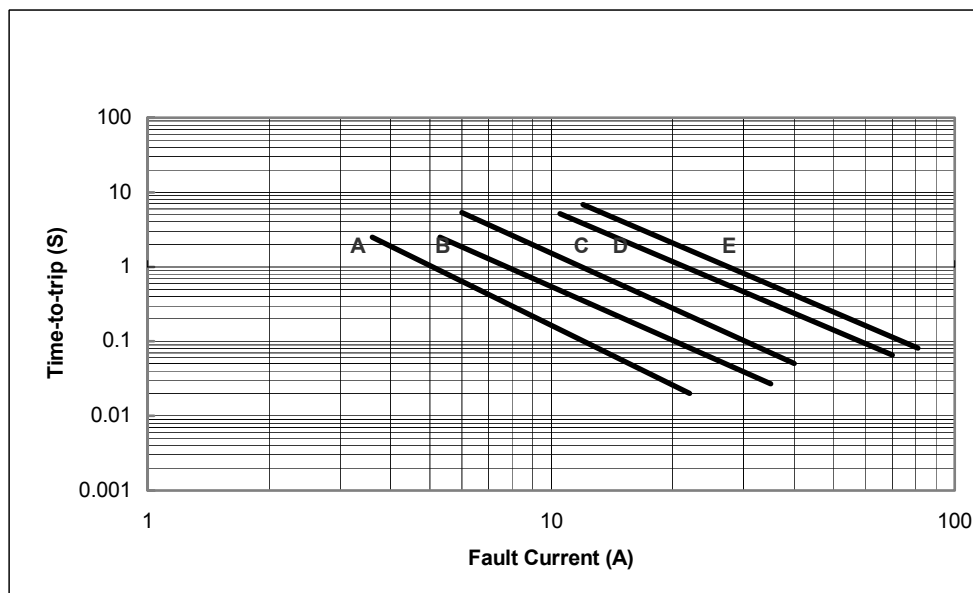


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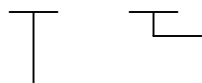
Typical Time-To-Trip at 23°C

- A = FSR120/FSR120S
- B = FSR175/FSR175S
- C = FSR200
- D = FSR350
- E = FSR420



Part Numbering System

FSR □ □ □ - S

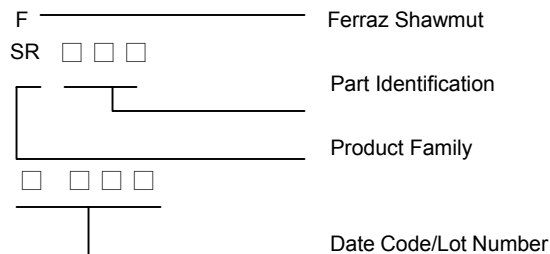


S=slitted lead
Current rating



Example

Part Marking System



Standard Package

P/N	Pcs /Bag
FSR120	1K
FSR120S	1K
FSR175	1K
FSR175S	1K

P/N	Pcs /Bag
FSR200	500
FSR350	500
FSR420	500

Warning:



- Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
- PPTC device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.
- Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.