Axial Leaded PTC Resettable Fuse: FSR420F

1. Summary

(a) **RoHS Compliant (Lead Free) Product**
(b) **Applications: Rechargeable battery packs, Lithium cell and battery packs**
(c) **Product Features: Low profile, Solid state**
(d) **Operation Current: 4.2A**
(e) **Maximum Voltage: 30V**
(f) **Temperature Range : -40℃ to 85℃**

2. Agency Recognition

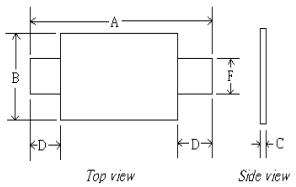
UL: File No. E211981
C-UL: File No. E211981
TUV: File No. R50004084

3. Electrical Characteristics (23℃)

Part Number	Hold Current	Trip Current	Max. Time to Trip	Rated Voltage	Maximum Current	Typical Power	Resistance		
	I_H, A	I_T, A	at 5xI_H, S	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	R_{MIN} ohms	R_{MAX} ohms	$R1_{MAX}$ ohms
FSR420F	4.2	7.6	6.0	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℃ still air.
I_T=Trip current-minimum current at which the device will always trip at 23℃ 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}).
Pd=Maximum power dissipated from device when in tripped state in 23℃ still air environment.
R_{MIN}=Minimum device resistance at 23℃.
$R1_{MAX}$=Maximum device resistance at 23℃, 1 hour after tripping.
Physical specifications:
Lead material:0.13 mm nominal thickness, quarter-hard nickel.
Insulating material: Polyester tape.

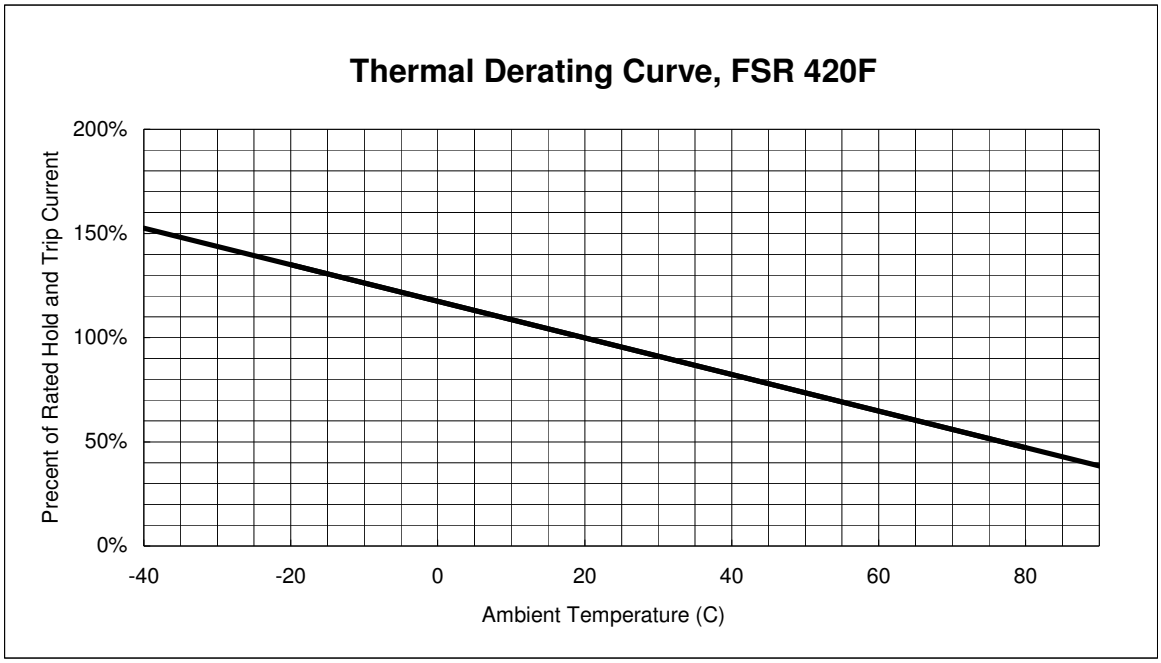
4. Production Dimensions (millimeter)



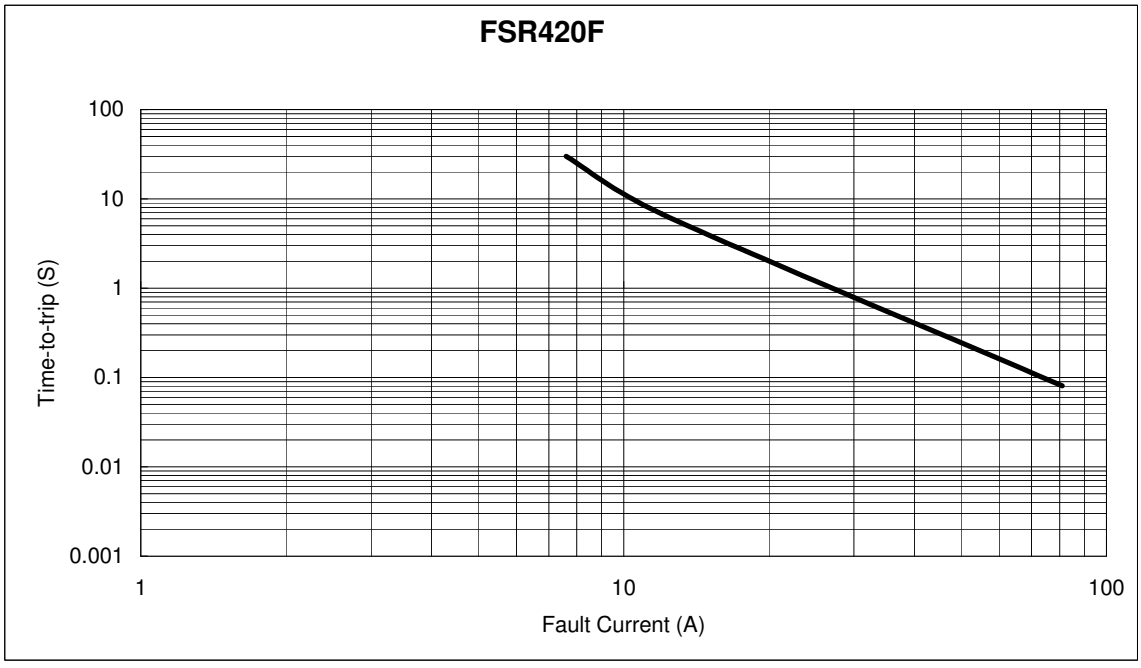
Part Number	A		B		C		D		F	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
FSR420F	30.6	32.4	12.9	13.6	0.5	1.1	5.0	7.5	6.0	6.7

NOTE : Specification subject to change without notice.

5. Thermal Derating Curve



6. Typical Time-To-Trip at 23℃



NOTE : Specification subject to change without notice.

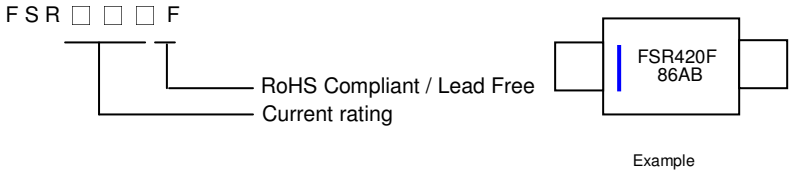
7. Material Specification

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

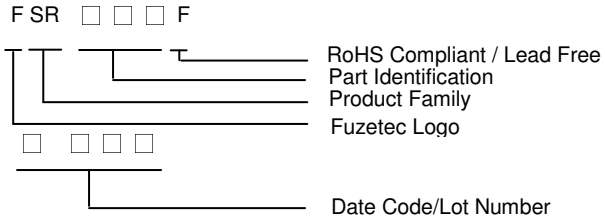
Insulating material:Polyester tape

8. Part Numbering and Marking System

Part Numbering System



Part Marking System



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.

NOTE : Specification subject to change without notice.