



Axial Leaded PTC Resettable Fuse: FVL Series

1. Summary

- (a) **RoHS Compliant & Halogen Free**
- (b) **Applications: Laptop Computer, Rechargeable battery packs, Lithium cell and battery packs**
- (c) **Product Features: Low profile, Solid state**
- (d) **Operation Current: 1.7~2.3A**
- (e) **Maximum Voltage: 12V**
- (f) **Temperature Range : -40°C to 85°C**

2. Agency Recognition

UL: File No. E211981

C-UL: File No. E211981

TÜV: File No. R50004084

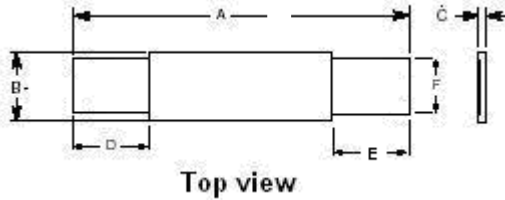
3. Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Max. Time to Trip	Rated Voltage	Max. Current	Typical Power	Resistance		
							R _{MIN}	R _{MAX}	R _{1MAX}
	I _H ,A	I _T ,A	at 5xI _H ,S	V _{MAX} , VDC	I _{MAX} , A	P _d , W	Ohms	Ohms	Ohms
FVL170F	1.70	4.10	5.0	12	100	1.4	0.018	0.032	0.064
FVL175F	1.75	4.20	5.0	12	100	1.4	0.017	0.031	0.062
FVL230F	2.30	5.00	5.0	12	100	1.4	0.012	0.018	0.036

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 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: 0.1mm nominal thickness, quarter-hard nickel.
 Insulating material: Polyester tape.

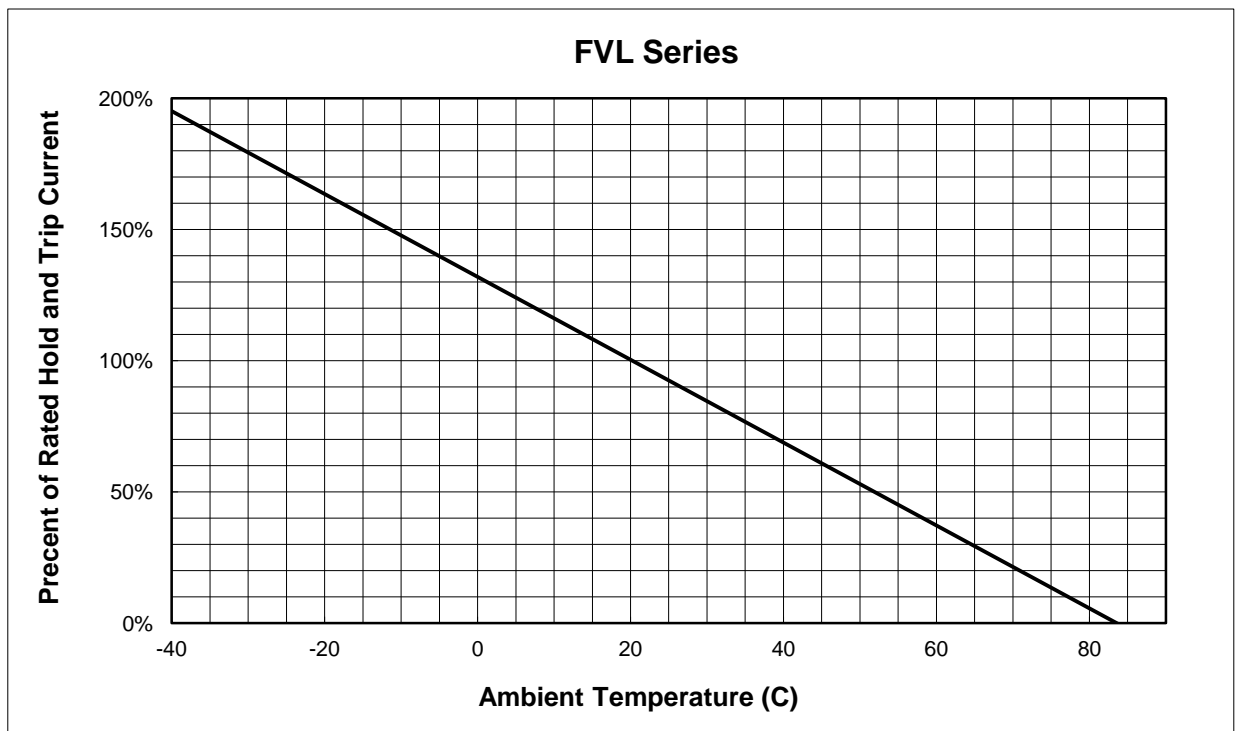


4. Production Dimensions (millimeter)



Part Number	A		B		C		D		E		F	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
FVL170F	20.8	23.2	3.5	3.9	0.5	0.8	4.5	6.5	4.5	6.5	2.4	2.6
FVL175F	23.0	24.5	2.9	3.3	0.5	0.8	4.7	7.2	3.8	5.4	2.4	2.6
FVL230F	20.9	23.1	4.9	5.3	0.5	0.8	4.1	5.8	4.1	5.8	3.9	4.1

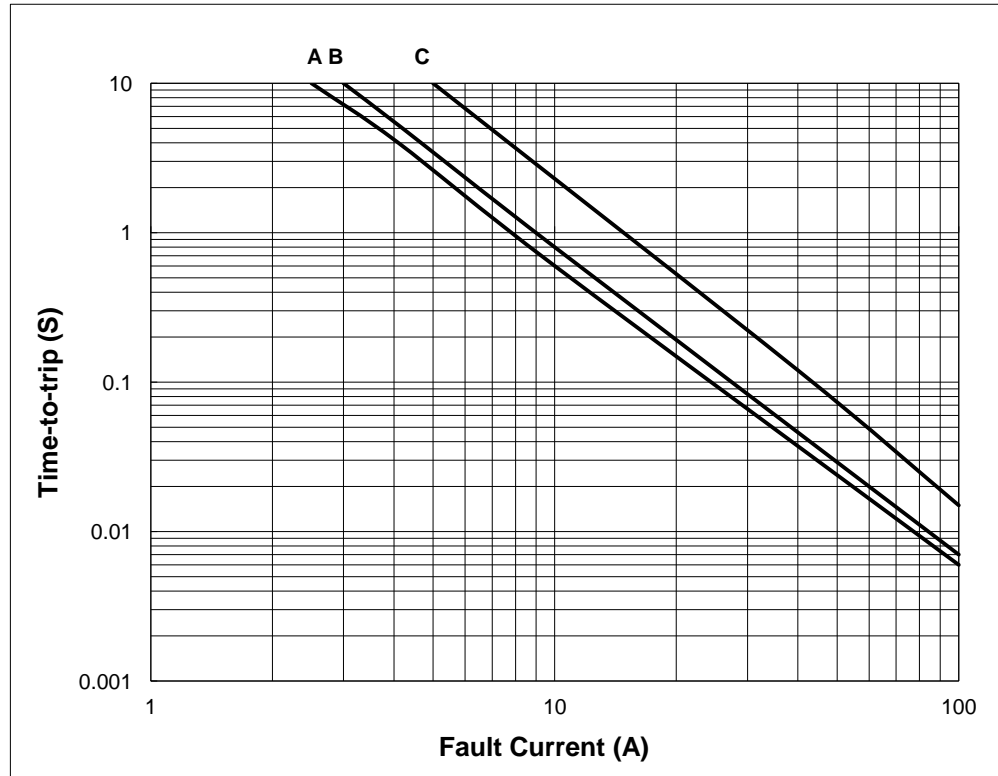
5. Thermal Derating Curve





6. Typical Time-To-Trip at 23°C

A= FVL170F
B= FVL175F
C= FVL230F



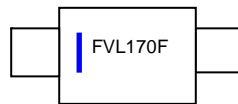
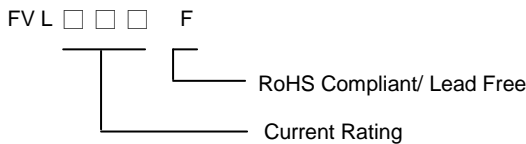
7. Material Specification

Lead material: 0.1 mm nominal thickness, quarter-hard nickel

Insulating material: Polyester tape

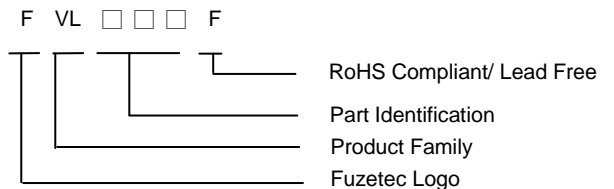
8. Part Numbering and Marking System

Part Numbering System



Example

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.