Radial Leaded PTC Resettable Fuse: FRV005-240F

1. Summary

(a) **RoHS Compliant (Lead Free) Product**

(b) **Applications: Line Voltage Power Supply, Transformer and Appliances**

(c) **Product Features: Low hold current, Solid state, Radial leaded product ideal for up to 265$V_{AC/DC}$**

(d) **Operation Current: 50mA**

(e) **Maximum Operating Voltage: 240$V_{AC/DC}$**

(f) **Maximum Interrupt Voltage: 265$V_{AC/DC}$**

(g) **Temperature Range : -40℃ to 85℃**

2. Agency Recognition

UL: File No. E211981

C-UL: File No. E211981

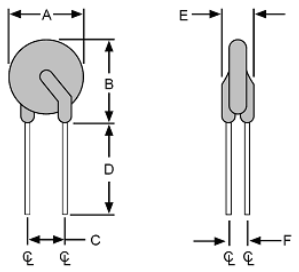
TÜV: File No. R50087018

3. Electrical Characteristics (23℃)

Part Number	Hold Current	Trip Current	Max.Time to Trip	Max. Current	Rated Voltage	Max. Int. Voltage	Typ. Power	Resistance	
								R_{MIN}	$R1_{MAX}$
	I_H, A	I_T, A	at 5xI_H,S	I_{MAX}, A	V_{MAX}, $V_{AC/DC}$	V_{I-MAX},$V_{AC/DC}$	Pd, W	Ohms	Ohms
FRV005-240F	0.05	0.12	15.0	1.0	240	265	0.70	18.50	65.00

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=Typical 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: Tin plated copper, 24AWG.
Soldering characteristics: MIL-STD-202, Method 208E.
Insulating coating:Flame retardant epoxy, meets UL-94V-0 requirement.

4. Production Dimensions (millimeter)

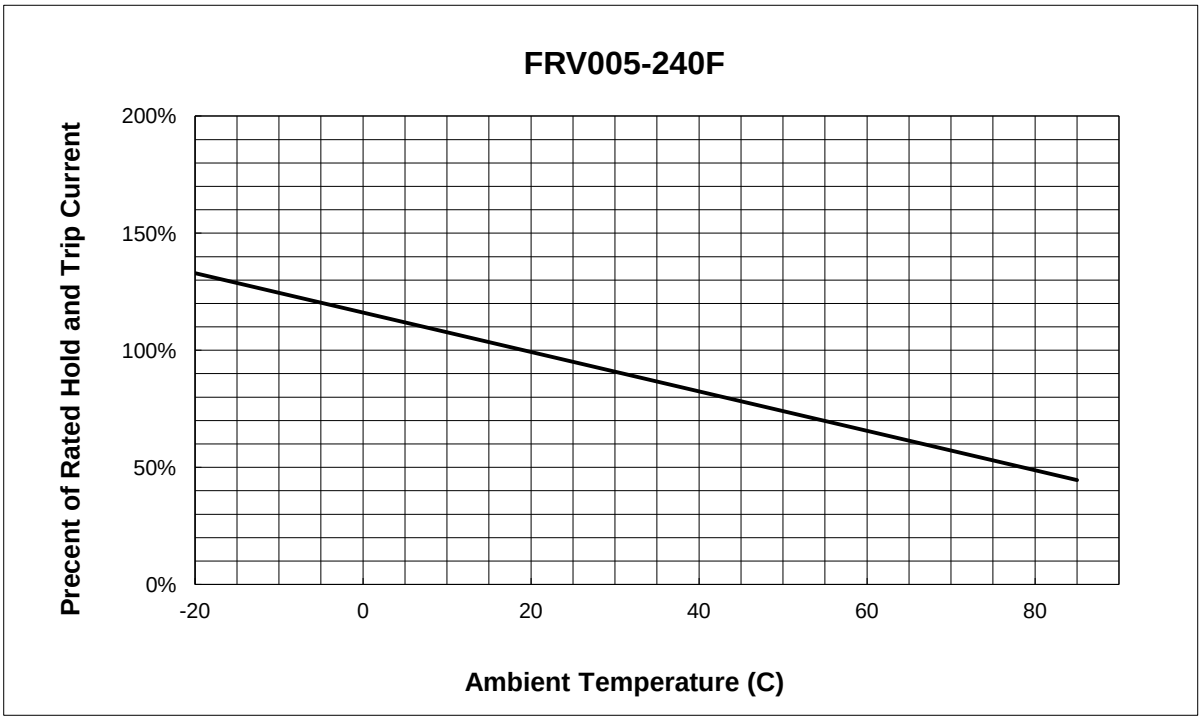


Lead Size: 24AWG
Φ 0.51 mm Diameter

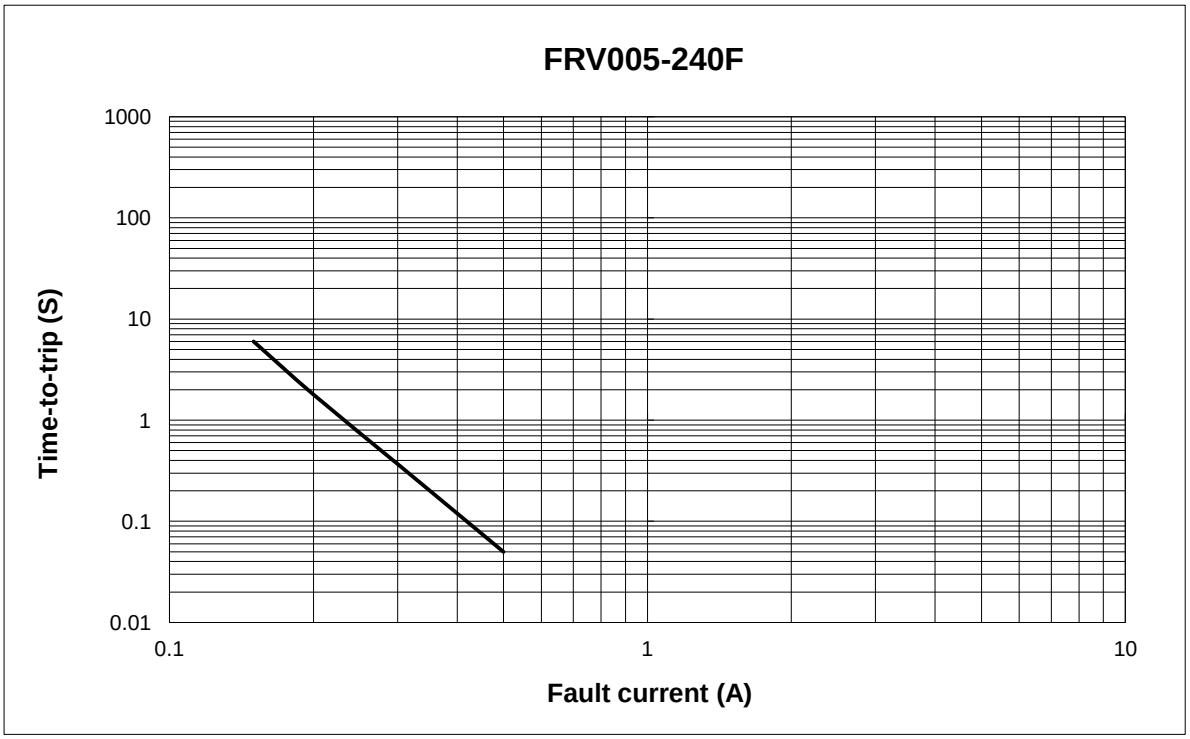
Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
FRV005-240F	8.3	10.7	5.1	7.6	3.8	1.6

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

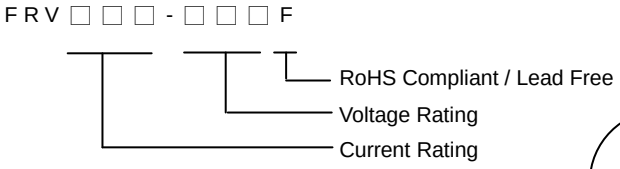
Lead material：Tin plated copper, 24AWG

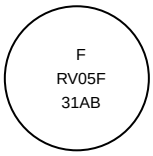
Soldering characteristics: MIL-STD-202, Method 208E.

Insulating coating:Flame retardant epoxy, meets UL-94V-0 requirement.

8. Part Numbering and Marking System

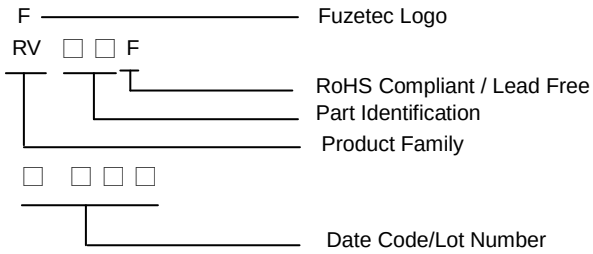
Part Numbering System





Example

Part Marking System



Note: Font on Marking may look slightly different due to fine turnings of each Marking printer.

Warning: - Each product should be carefully evaluated and tested for their suitability of application.

- Operation beyond the specified maximum rating 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, including some inert material such as silicone based oil, lubricant and etc. Prolonged contact will damage the device performance.
- Additional protection mechanism are strongly recommended to be used in conjunction with the PPTC device for protection against abnormal or failure conditions.
- Avoid use of PPTC device in a constrained space such as potting material, housing and containers where have limited space to accommodate device thermal expansion and/or contraction.