



Radial Leaded PTC Resettable Fuse: FRX 090-60F

1. Summary

- (a) **RoHS Compliant (Lead Free) Product**
- (b) **Applications:** Wide variety of electronic equipment
- (c) **Product Features:** Low hold current, Solid state, Radial leaded product ideal for up to 60V
- (d) **Operation Current:** 900mA
- (e) **Maximum Voltage:** 60V
- (f) **Temperature Range :** -40°C to 85°C

2. Agency Recognition

- UL: File No. E211981
- C-UL: File No. E211981
- TÜV: File No. R 50004084

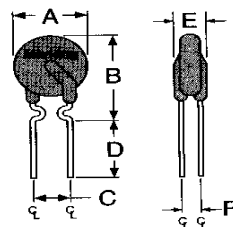
3. Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Max.Time to Trip	Maximum Current	Rated Voltage	Typical Power	Resistance	
	I_H, A	I_T, A	at 5xI _H	I_{MAX}, A	V_{MAX}, Vdc	P_d, W	R_{MIN}	R_{1MAX}
	ohms	ohms						
FRX090-60F	0.90	1.80	7.2	40	60	0.99	0.20	0.47

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

4. Production Dimensions (millimeter)



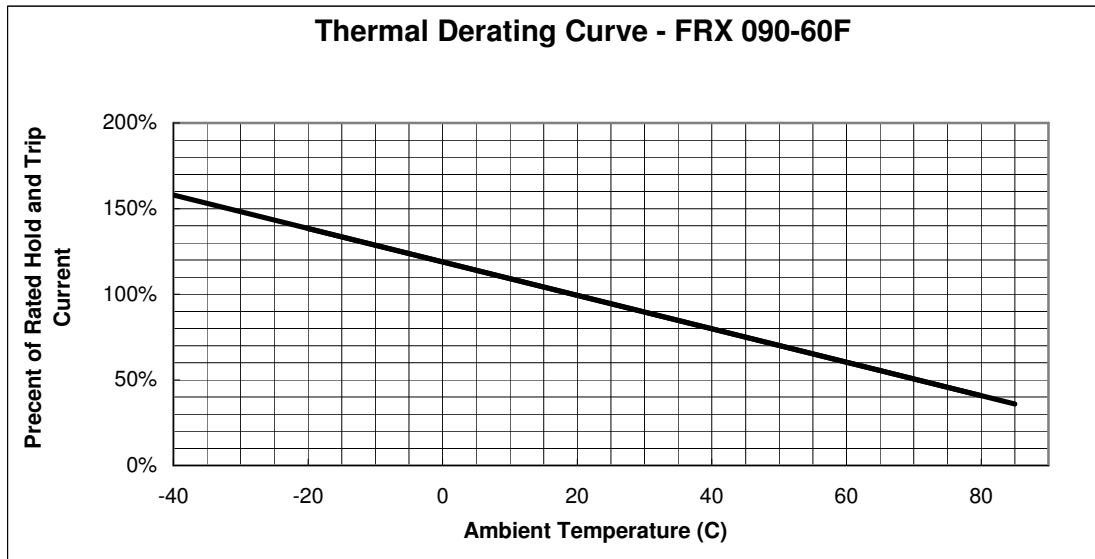
FRX 090-60F
 Lead Size: 24AWG
 Φ 0.51 mm Diameter

Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
FRX090-60F	11.7	15.8	5.1	7.6	3.1	1.1

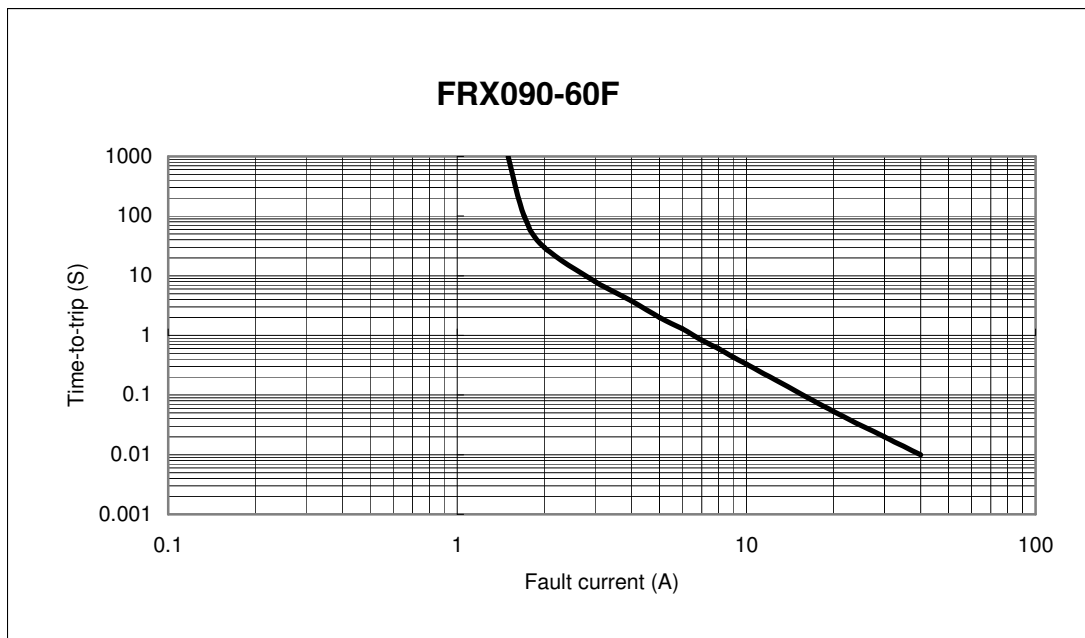
NOTE : Specification subject to change without notice.



5. Thermal Derating Curve



6. Typical Time-To-Trip at 23°C





7. Material Specification

Lead material : Tin plated copper, 24 AWG.

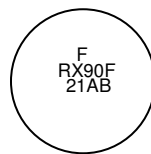
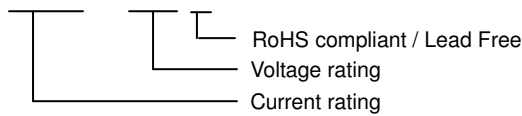
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8. Part Numbering and Marking System

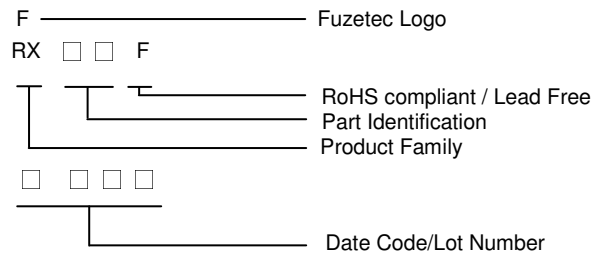
Part Numbering System

F R X □ □ □ - □ □ F



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.