



# Radial Leaded PTC Resettable Fuse : FRK185-60F

## 1. Summary

- (a) **RoHS Compliant (Lead Free) product**
- (b) **Applications : Wide variety of electronic equipment**
- (c) **Product Features : Solid state, Radial leaded product ideal for up to 60V<sub>DC</sub>**
- (d) **Operation Current : 1.85A**
- (e) **Maximum Operation Voltage : 60V<sub>DC</sub>**
- (f) **Temperature Range : -40°C to 85°C**

## 2. Agency Recognition

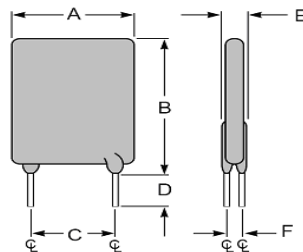
- UL : Pending
- C-UL: Pending
- TÜV: Pending

## 3. Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Max.Time to Trip		Max. Current	Rated Voltage	Typ. Power	Resistance	
			I, A	Time,s				R <sub>MIN</sub>	R <sub>1MAX</sub>
	I <sub>H</sub> , A	I <sub>T</sub> , A	I, A	Time,s	I <sub>MAX</sub> , A	V <sub>MAX</sub> , VDC	P <sub>d</sub> , W	Ohms	Ohms
<b>FRK185-60F</b>	1.85	3.70	9.25	12.6	40	60	2.60	0.060	0.250

I<sub>H</sub>=Hold current-maximum current at which the device will not trip at 23°C still air.  
 I<sub>T</sub>=Trip current-minimum current at which the device will always trip at 23°C still air.  
 V<sub>MAX</sub>=Maximum voltage device can withstand without damage at its rated current.  
 I<sub>MAX</sub>= Maximum fault current device can withstand without damage at rated voltage (V<sub>MAX</sub>).  
 P<sub>d</sub>=Typical power dissipated from device when in tripped state in 23°C still air environment.  
 R<sub>MIN</sub>=Minimum device resistance at 23°C.  
 R<sub>1MAX</sub>=Maximum device resistance at 23°C, 1 hour after tripping .  
 Physical specifications:  
 Lead material: Tin plated copper,20AWG.  
 Soldering characteristics:MIL-STD-202, Method 208E.  
 Insulating coating:Flame retardant epoxy, meets UL-94V-0 requirement.

## 4. Production Dimensions (millimeter)



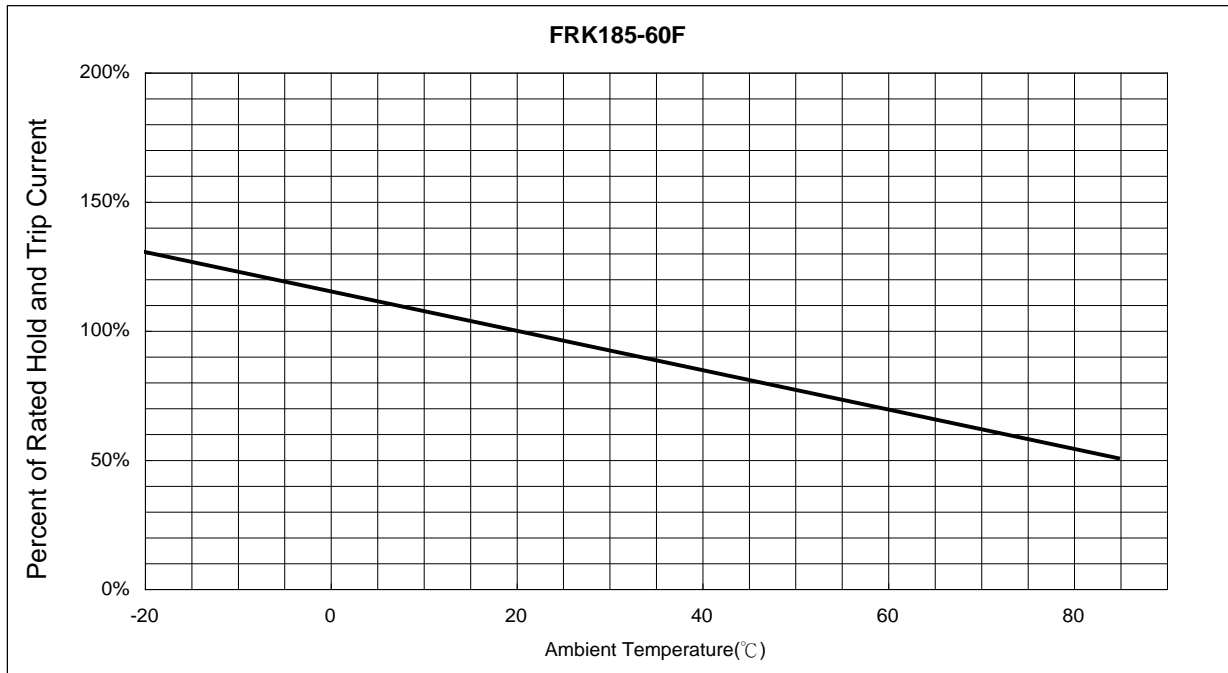
**FRK185-60F**  
 Lead Size : 20AWG  
 Φ 0.81 mm Diameter

Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
<b>FRK185-60F</b>	13.00	18.80	5.1	7.6	3.81	1.4

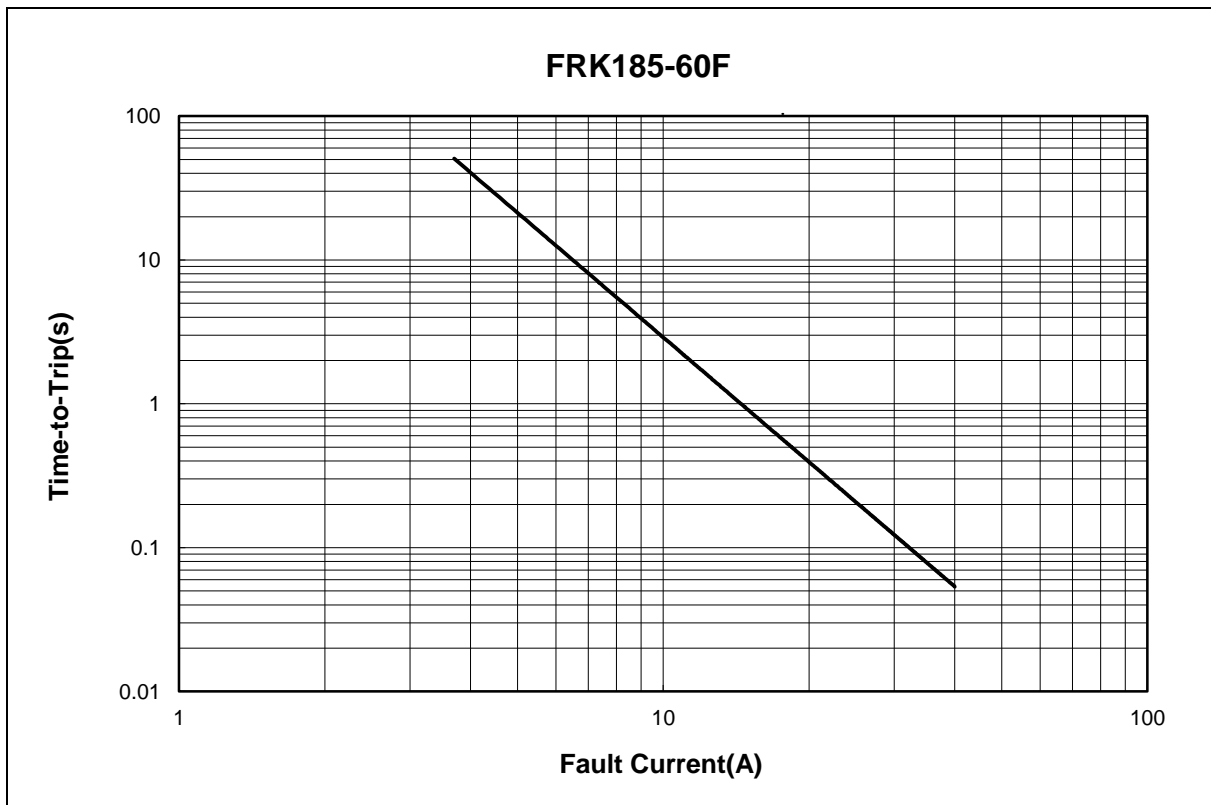
NOTE : Specification subject to change without notice.



### 5. Thermal Derating Curve



### 6. Typical Time-To-Trip at 23°C



NOTE : Specification subject to change without notice.



### 7. Material Specification

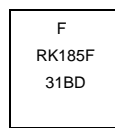
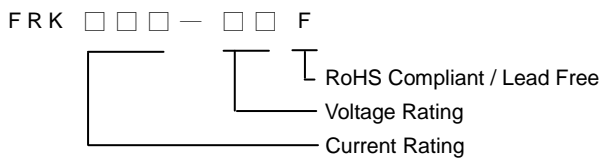
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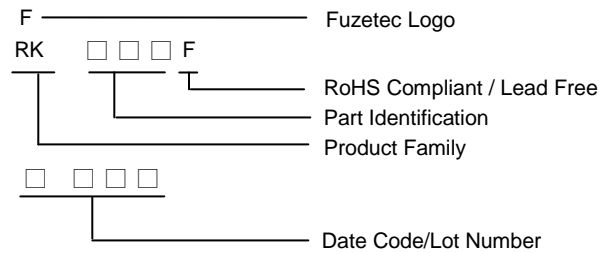
### 8. Part Numbering and Marking System

#### Part Numbering System



Example

#### Part Marking System



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

**Warning:** -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.

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