



Radial Leaded PTC Resettable Fuse : FRK135-60F

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_{DC}**
- (d) **Operation Current : 1.35A**
- (e) **Maximum Operation Voltage : 60V_{DC}**
- (f) **Temperature Range : -40°C to 85°C**

2. Agency Recognition

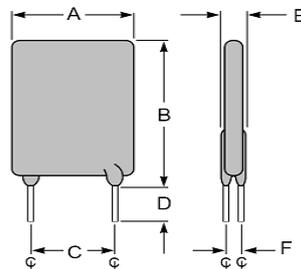
- UL : Pending
- C-UL: Pending
- TÜV: Pending

3. Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Max.Time to Trip		Max. Current	Rated Voltage	Typ. Power	Resistance	
	I _H , A	I _T , A	I, A	Time,s	I _{MAX} , A	V _{MAX} , VDC	P _d , W	R _{MIN}	R _{1MAX}
								Ohms	Ohms
FRK135-60F	1.35	2.70	8.0	4.5	40	60	2.30	0.110	0.370

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,20AWG.
 Soldering characteristics:MIL-STD-202, Method 208E.
 Insulating coating:Flame retardant epoxy, meets UL-94V-0 requirement.

4. Production Dimensions (millimeter)



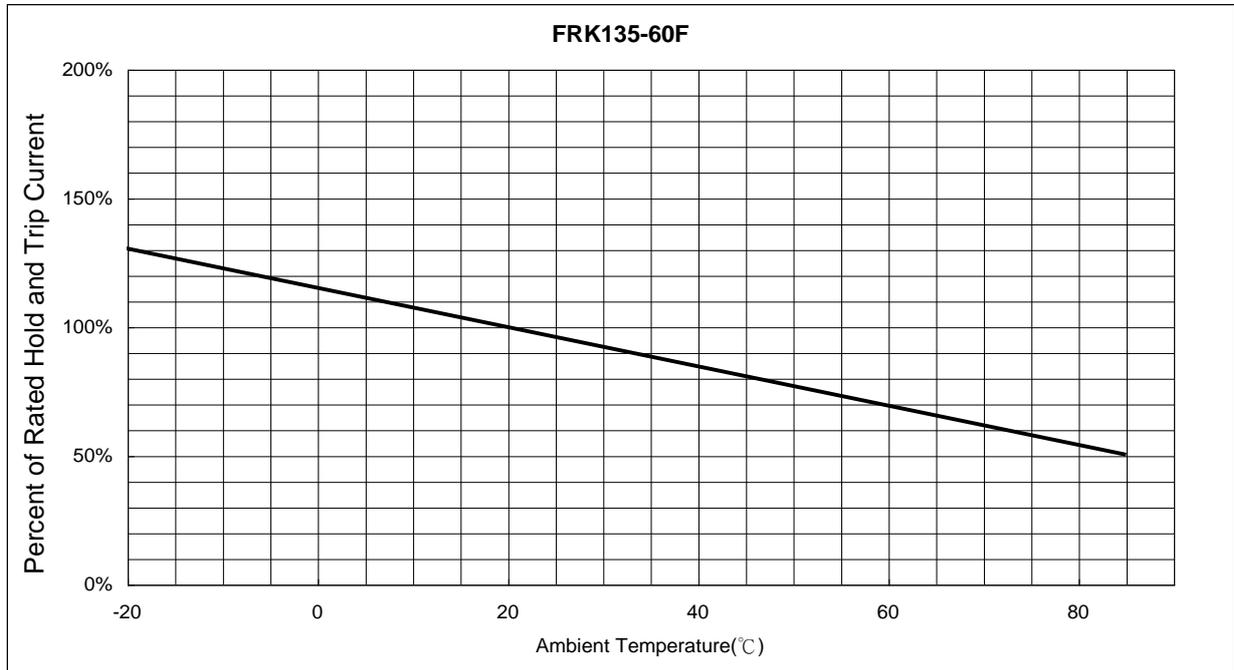
FRK135-60F
Lead Size : 20AWG
Φ 0.81 mm Diameter

Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
FRK135-60F	10.20	17.00	5.1	7.6	3.81	1.4

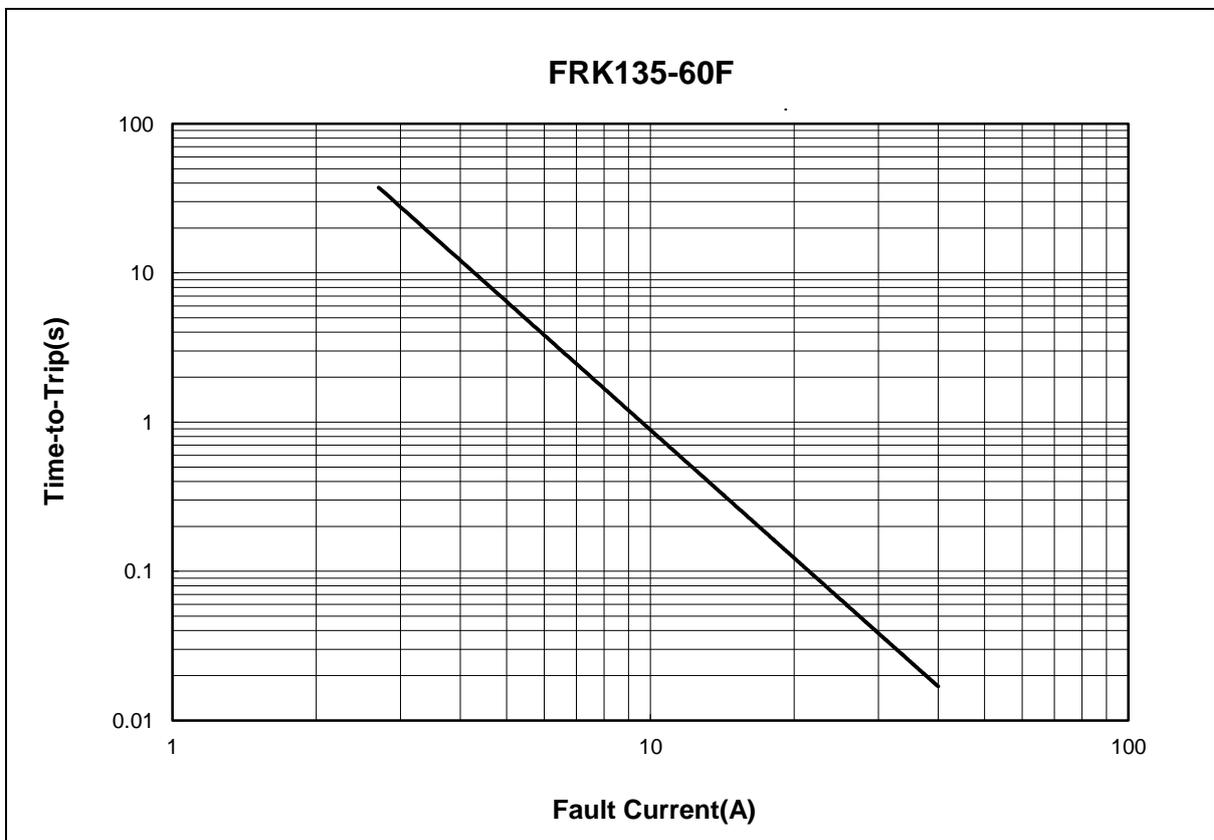
NOTE : Specification subject to change without notice.



5. Thermal Derating Curve



6. Typical Time-To-Trip at 23°C



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7. Material Specification

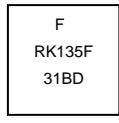
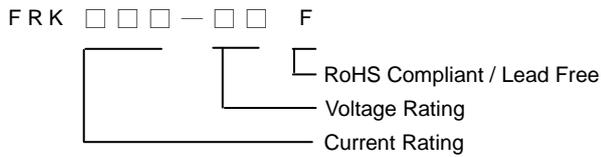
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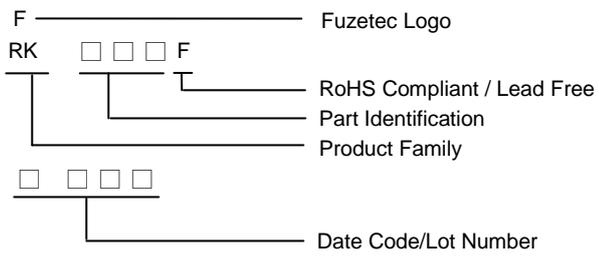
8. Part Numbering and Marking System

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.