

FEATURES

- Low hold current, Solid state Radial-leaded
- Product ideal for up to 60 or 90 volts
- Application: Wide variety of electronic equipment
- Operation Current: 50mA ~ 3.75A
- Maximum Voltage: 60 or 90 volts (72 volts)
- Temperature Range: -40°C to 85°C

AGENCY RECOGNITION

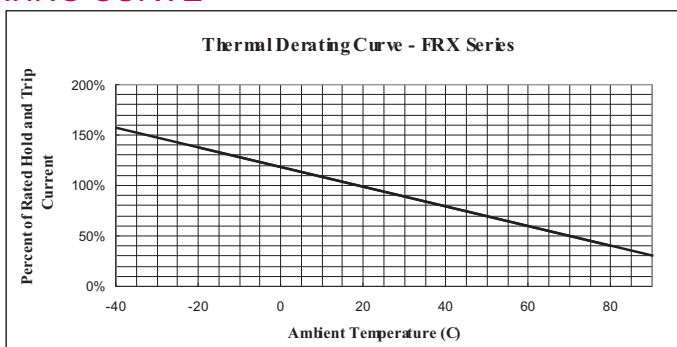
- UL (E211981)
- C-UL (E211981)
- TÜV (R3-5004084)

ELECTRICAL CHARACTERISTICS (23°C)

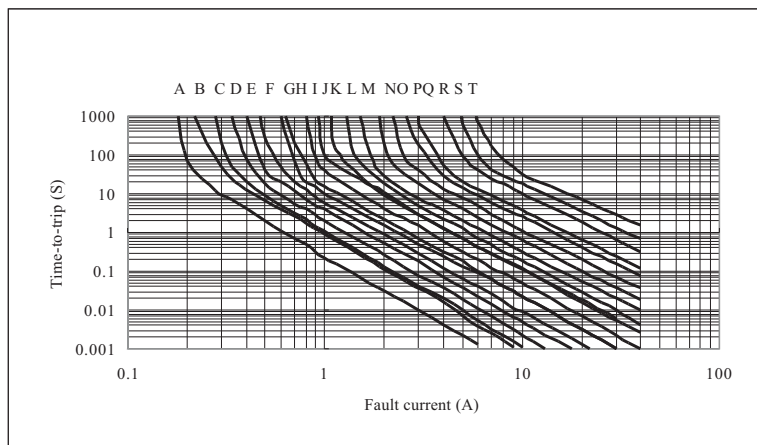
Part Number	Hold Current	Trip Current	Max. Time to Trip	Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
	I _H , A	I _T , A	at 5xI _H	I _{MAX} , A	V _{MAX} , VDC	P _d , W	R _{MIN} OHMS	R _{1MAX} OHMS
FRX005-60F	0.05	0.10	5.0	40	60	0.26	7.30	20.00
FRX010-60F or 90F	0.10	0.20	4.0	40	60 or 90	0.38	2.50	7.50
FRX015-90F	0.15	0.35	10.0	40	90	0.70	2.40	7.00
FRX017-60F or 90F	0.17	0.34	3.0	40	60 or 90	0.48	2.00	8.00
FRX020-60F or 90F	0.20	0.40	2.2	40	60 or 90	0.41	1.83	4.40
FRX025-60F or 90F	0.25	0.50	2.5	40	60 or 90	0.45	1.25	3.00
FRX030-60F or 90F	0.30	0.60	3.0	40	60 or 90	0.49	0.88	2.10
FRX035-90F	0.35	0.75	10.0	40	90	1.30	0.70	2.50
FRX040-60F or 90F	0.40	0.80	3.8	40	60 or 90	0.56	0.55	1.29
FRX050-60F or 90F	0.50	1.00	4.0	40	60 or 90	0.77	0.50	1.17
FRX055-90F	0.55	1.20	10.0	40	90	1.50	0.40	1.50
FRX065-60F or 90F	0.65	1.30	5.3	40	60 or 90	0.88	0.31	0.72
FRX075-60F or 90F	0.75	1.50	6.3	40	60 or 90	0.92	0.25	0.60
FRX090-60F or 90F	0.90	1.80	7.2	40	60 or 90	0.99	0.20	0.47
FRX110-60F or 90F	1.10	2.20	8.2	40	60 or 90	1.50	0.15	0.38
FRX135-60F or 90F	1.35	2.70	9.6	40	60 or 90	1.70	0.12	0.30
FRX160-60F or 90F	1.60	3.20	11.4	40	60 or 90	1.90	0.09	0.22
FRX185-60F or 90F	1.85	3.70	12.6	40	60 or 90	2.10	0.08	0.19
FRX250-60F or 90F	2.50	5.00	15.6	40	60 or 90	2.50	0.05	0.13
FRX300-60F or 90F	3.00	6.00	19.8	40	60 or 90	2.80	0.04	0.10
FRX375-60F or 90F	3.75	7.50	24.0	40	60 or 90	3.20	0.03	0.08

I_H=Hold current-maximum current at which the device will not trip at 23°C still air.
 I_T=Trip current-maximum 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 the 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: FRX005~FRX090 Tin plated copper, 24AWG.
 FRX110~FRX375 Tin plated copper, 20 AWG.
 Soldering characteristics: MIL-STD-202, Method 208E.
 Insulating coating: Flame retardant epoxy, meet UL-94V-0 requirement.
 •Use 90V devices for 72V applications.

THERMAL DERATING CURVE

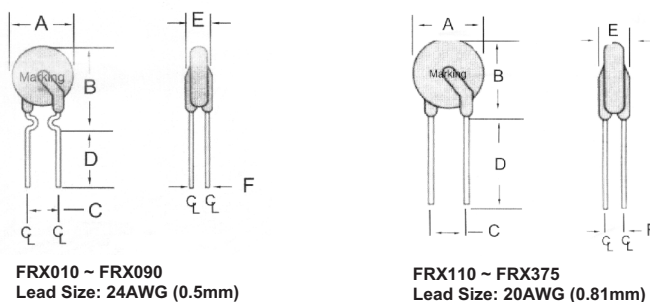


TYPICAL TIME-TO-TRIP AT 23°C



- A = FRX005-60F K = FRX055-90F
- B = FRX010-60F or 90F L = FRX065-60F or 90F
- C = FRX015-90F M = FRX075-60F or 90F
- D = FRX017-60F or 90F N = FRX090-60F or 90F
- E = FRX020-60F or 90F O = FRX110-60F or 90F
- F = FRX025-60F or 90F P = FRX135-60F or 90F
- G = FRX030-60F or 90F Q = FRX160-60F or 90F
- H = FRX035-90F R = FRX185-60F or 90F
- I = FRX040-60F or 90F S = FRX250-60F or 90F
- J = FRX050-60F or 90F T = FRX300-60F or 90F
- U = FRX375-60F or 90F

PRODUCTION DIMENSIONS (MILLIMETER)



Part	A	B	C	D	E	E
Number	Maximum	Maximum	Typical	Minimum	Maximum	Maximum
FRX005-60F	7.4	12.7	5.1	7.6	3.1	1.1
FRX010-60F or 90F	7.4	12.7	5.1	7.6	3.1	1.1
FRX015-90F	7.4	12.7	5.1	7.6	3.1	1.1
FRX017-60F or 90F	7.4	12.7	5.1	7.6	3.1	1.1
FRX020-60F or 90F	7.4	12.7	5.1	7.6	3.1	1.1
FRX025-60F or 90F	7.4	12.7	5.1	7.6	3.1	1.1
FRX030-60F or 90F	7.4	13.0	5.1	7.6	3.1	1.1
FRX035-90F	7.4	12.7	5.1	7.6	3.1	1.1
FRX040-60F or 90F	7.6	13.5	5.1	7.6	3.1	1.1
FRX050-60F or 90F	7.9	13.7	5.1	7.6	3.1	1.1
FRX055-90F	9.7	14.0	5.1	7.6	3.1	1.1
FRX065-60F or 90F	9.7	14.5	5.1	7.6	3.1	1.1
FRX075-60F or 90F	10.4	15.2	5.1	7.6	3.1	1.1
FRX090-60F or 90F	11.7	15.8	5.1	7.6	3.1	1.1
FRX110-60F or 90F	13	18.0	5.1	7.6	3.1	1.4
FRX135-60F or 90F	14.5	19.6	5.1	7.6	3.1	1.4
FRX160-60F or 90F	16.3	21.3	5.1	7.6	3.1	1.4
FRX185-60F or 90F	17.8	22.9	5.1	7.6	3.1	1.4
FRX250-60F or 90F	21.3	26.4	10.2	7.6	3.1	1.4
FRX300-60F or 90F	24.9	30.0	10.2	7.6	3.1	1.4
FRX375-60F or 90F	28.5	33.5	10.2	7.6	3.1	1.4

NOTE: All Specifications subject to change without notice.