



PRODUCT FEATURES: Low hold current Solid state, Radial

leaded product ideal for up to
60V/100V/250V/600V.

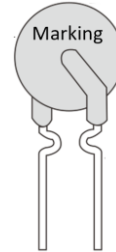
Operation Current: 0.08A ~ 0.40A.

Maximum Operation Voltage: 60V/100V/250V_{DC}.

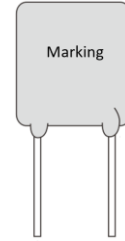
Maximum Interrupt Voltage: 250V/600V_{AC}.

Temperature Range: -40°C ~ +85°C.

Applications: Wide variety of electronic equipment.



Lead Size: 22AWG



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ELECTRICAL CHARACTERISTICS (23°C)

Part Number	Hold	Trip	Max. Time to Trip		Max.	Max. Oper.	Max. Int.	Typ.	Resistance	
	Current	Current	Current	Time	Current	Voltage	Voltage	Power	R _{MIN}	R _{1MAX}
	I _H , A	I _T , A	A	Sec	I _{MAX} , A	V _{MAX} , V _{DC}	V _{I-MAX} , V _{AC}	P _d , W	Ohms	Ohms
FRH080-250	0.08	0.16	0.35	4.00	3.00	100	250	1.00	14.00	33.00
FRH110-250	0.11	0.22	1.00	2.00	3.00	100	250	1.00	5.00	16.00
FRH120-250	0.12	0.24	1.00	2.00	3.00	100	250	1.00	4.00	16.00
FRH145-250	0.15	0.29	1.00	2.50	3.00	100	250	1.00	3.00	12.00
FRH180-250	0.18	0.65	3.00	2.00	10.00	100	250	1.00	0.80	4.00
FRH150-600	0.15	0.30	1.00	4.00	3.00	250	600	1.00	6.00	17.00
FRH160-600	0.16	0.32	1.00	7.00	3.00	250	600	1.00	4.00	16.00
FRH160-600	0.16	0.32	1.00	7.00	3.00	250	600	1.00	4.00	18.00
FRH200-600	0.20	0.40	1.00	12.00	3.00	250	600	1.00	4.00	13.50
FRH250-600	0.25	0.85	3.00	1.00	3.00	250	600	1.00	1.00	7.00

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 operating voltage at which the device can withstand without damage at its rated current.

V_{I-MAX} = Maximum interrupt voltage device can withstand for short period of time. (Not for long term.)

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 .

Thermal Derating for PPTC Device at Various Ambient Temperatures

Temperature	-40°C	-20°C	0°C	23°C	30°C	40°C	50°C	60°C	70°C	85°C
Current Derating %	145%	130%	115%	100%	92%	85%	78%	80%	62%	50%



Typical Time-To-Trip at 23°C

A = FRH080-250

B = FRH110-250

C = FRH120-250

D = FRH145-250

E = FRH180-250

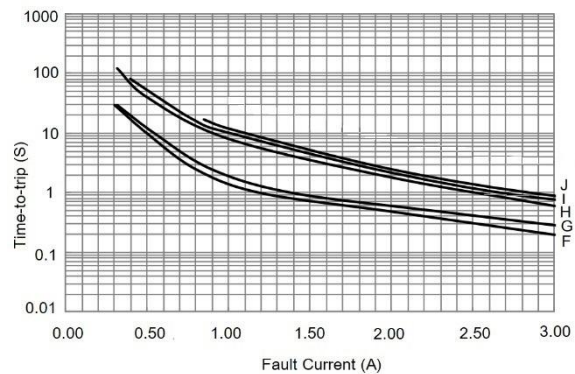
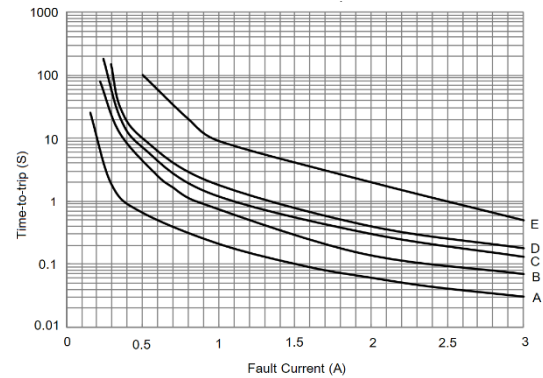
F = FRH150-600

G = FRH160-600

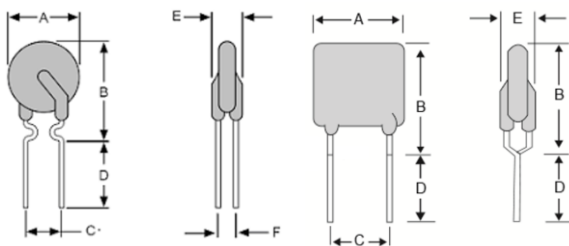
H = FRH160-600

I = FRH200-600

J = FRH250-600



Product Dimensions (Millimeters)



Terminal Pad Materials:

Tin-Plated Copper

22AWG, $\Phi 0.65\text{mm}$ Diameter

Terminal Pad Solderability:

MIL-STD-202, Method 208E

Flame retardant epoxy

Meet UL-94V-0 requirement

Part Number	A	B	C	D	E
	Max	Max	Typ.	Min	Max
FRH080-250	5.8	9.6	5.0	4.7	4.6
FRH110-250	6.8	9.9	5.0	4.7	4.6
FRH120-250	6.5	11.0	5.0	4.7	4.6
FRH145-250	6.5	11.0	5.0	4.7	4.6
FRH180-250	9.0	12.0	5.0	4.7	3.8
FRH150-600	9.0	12.5	5.0	4.7	4.6
FRH160-600	9.0	12.5	5.0	4.7	4.6
FRH160-600	16.0	12.6	5.0	4.7	6.0
FRH200-600	12.0	14.0	5.0	4.7	6.0
FRH250-600	12.2	15.0	5.0	4.7	6.0