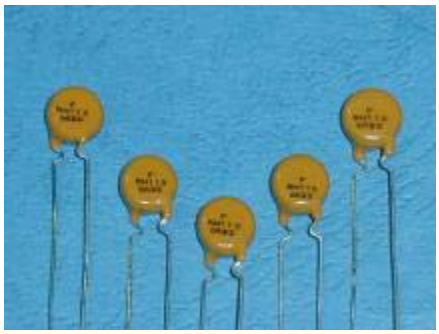
Radial Leaded PTC FRH Series

FUZETEC



Application:

Telecommunication and Data transmitting

Product Features:

Low hold current, Solid state

Radial-leaded product ideal for up to 60V/600V

Operation Current: 0.08 A~0.18A

Maximum Voltage: 60V/250V/600V

Temperature Range: -40℃ to 85℃

Agency Approvals: UL, C-UL＆TUV pending

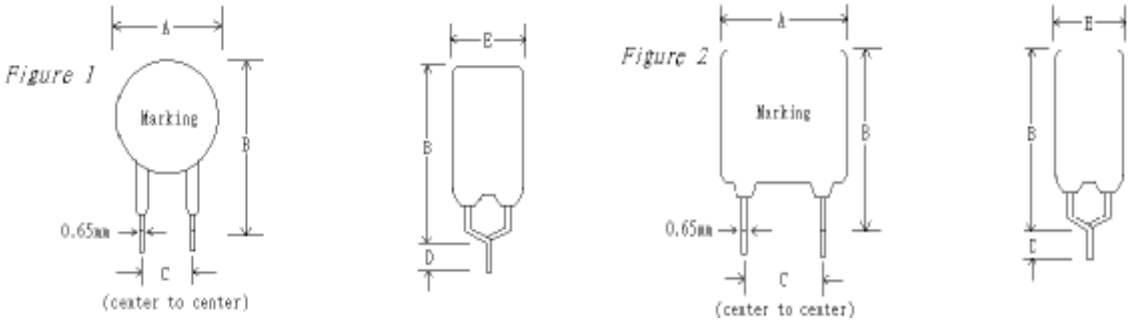
Electrical Characteristics(23℃)

Part Number	Hold Current	Maximum Current	Max Oper. Voltage	Max Int. Voltage	Resistance Tolerance	
					R_{MIN}	$R1_{MAX}$
	I_H,A	I_{MAX}, A	$V_{O\text{-}MAX}$, Vdc	$V_{I\text{-}MAX}$,V	Ω	Ω
FRH080-250U	0.08	3.0	60	250	14.0	33.0
FRH080-250	0.08	3.0	60	250	14.0	33.0
FRH110-250U	0.11	3.0	60	250	5.0	16.0
FRH110-250	0.11	3.0	60	250	5.0	16.0
FRH120-250U	0.12	3.0	60	250	6.0	16.0
FRH120-250	0.12	3.0	60	250	4.0	16.0
FRH145-250U	0.15	3.0	60	250	3.5	12.0
FRH145-250	0.15	3.0	60	250	3.0	12.0
FRH180-250U	0.18	10.0	60	250	0.8	4.0
FRH180-250	0.18	10.0	60	250	0.8	4.0
FRH150-600	0.15	3.0	60	600	6.0	22.0
FRH160-600	0.16	3.0	60	600	4.0	18.0

I_H=Hold current-maximum current at which the device will not trip at 23℃ still air.
I_T=Trip current-minimum current at which the device will always trip at 23℃ 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).
Pd=Typical power dissipated from device when in the tripped state in 23℃ still air environment.
R_{MIN}=Minimum device resistance at 23℃.
$R1_{MAX}$=Maximum device resistance at 23℃, 1 hour after tripping .
Physical specifications:
Lead material: FRH080~FRH110 Tin plated copper,22 AWG.
FRH120~FRH180 Tin plated copper,20 AWG.
Soldering characteristics:MIL-STD-202, Method 208E.
Insulating coating:Flame retardant epoxy ,meet UL-94V-O requirement.

DB LECTRO Inc., 3600-I, boulevard Matte, Brossard, QC J4Y 2Z2

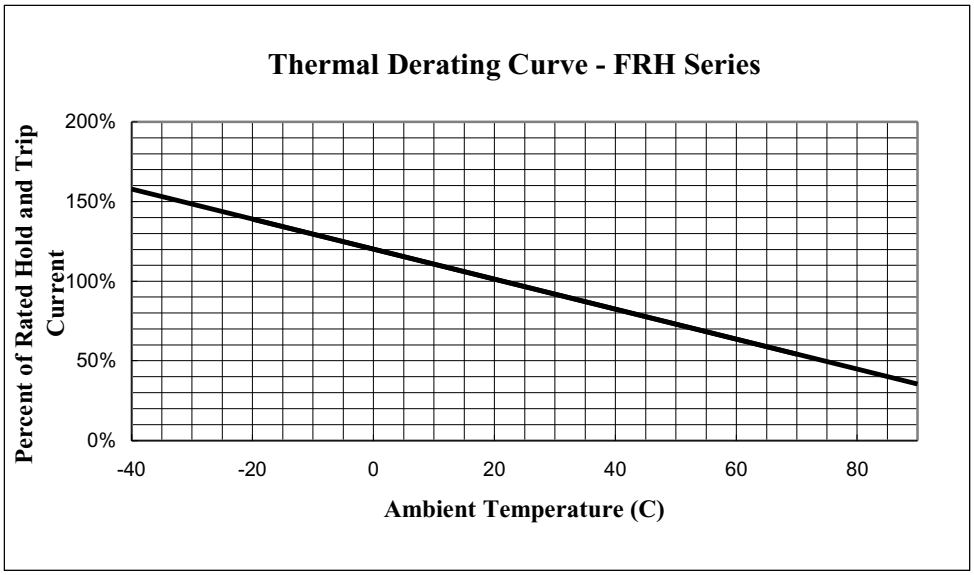
FRH Product Dimensions (millimeters)



Lead Size :22AWG, Φ 0.65 mm Diameter | **Lead Size : 20AWG, Φ 0.65 mm Diameter**

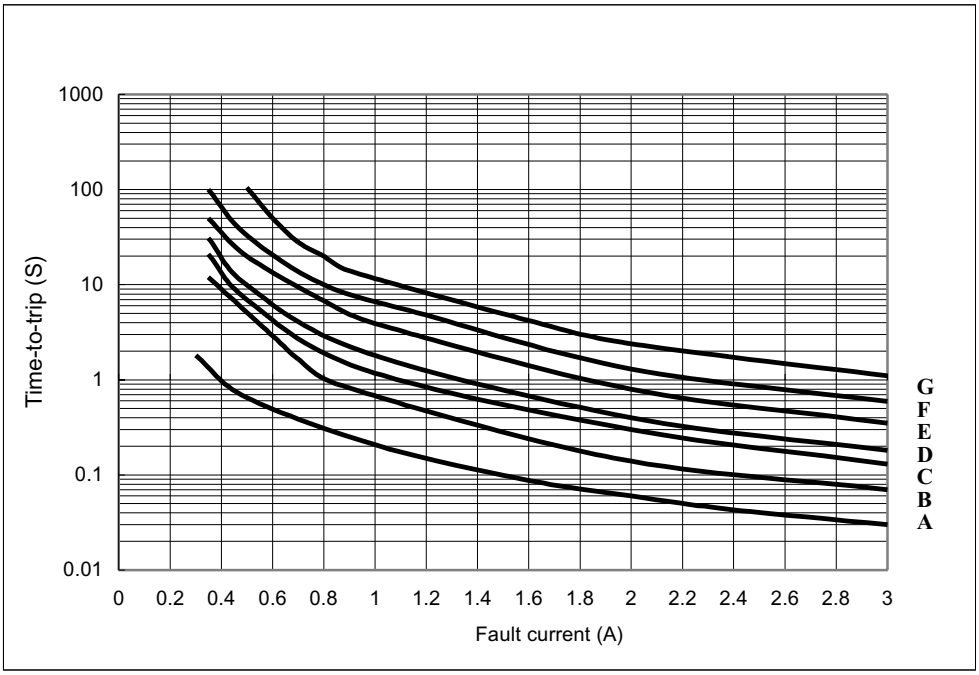
Part Number	Fig	A	B	C	D	E
		Maximum	Maximum	Typical	Minimum	Maximum
FRH080-250U	1	4.8	9.1	5.0	4.7	3.8
FRH080-250	1	5.3	9.6	5.0	4.7	4.6
FRH110-250U	1	5.3	9.4	5.0	4.7	3.8
FRH110-250	1	5.8	9.9	5.0	4.7	4.6
FRH120-250U	2	6.0	10.0	5.0	4.7	3.8
FRH120-250	2	6.5	11.0	5.0	4.7	4.6
FRH145-250U	2	6.0	10.0	5.0	4.7	3.8
FRH145-250	2	6.5	11.0	5.0	4.7	4.6
FRH180-250U	2	10.4	12.6	5.0	4.7	3.8
FRH180-250	2	10.9	13.6	5.0	4.7	4.6
FRH150-600	2	13.5	12.6	5.0	4.7	6.0
FRH160-600	2	16.0	12.6	5.0	4.7	6.0

Thermal Derating Curve



Typical Time-To-Trip at 23℃

A=FRH080(U) -250
B=FRH110(U) -250
C=FRH120(U) -250
D=FRH145(U) -250
E=FRH180(U) -250
F=FRH150-600
G=FRH160-600



Part Numbering System

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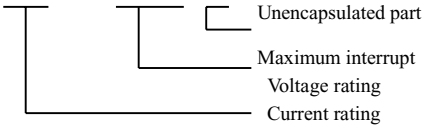
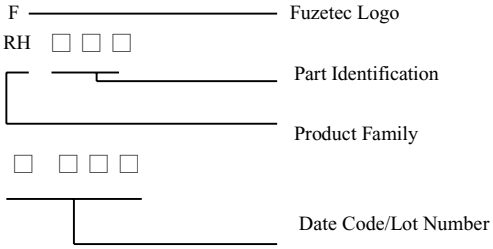


Example

Part Marking System



Standard Package

P/N	Pcs /Bag	Reel/Tape
FRH080-250U	300	1.5K
FRH080-250	300	1.5K
FRH110-250U	300	1.5K
FRH110-250	300	1.5K
FRH120-250U	300	1.5K
FRH120-250	300	1.5K

P/N	Pcs /Bag	Reel/Tape
FRH145-250U	300	1.5K
FRH145-250	300	1.5K
FRH180-250U	200	1.5K
FRH180-250	200	1.5K
FRH150-600	100	600
FRH160-600	100	600