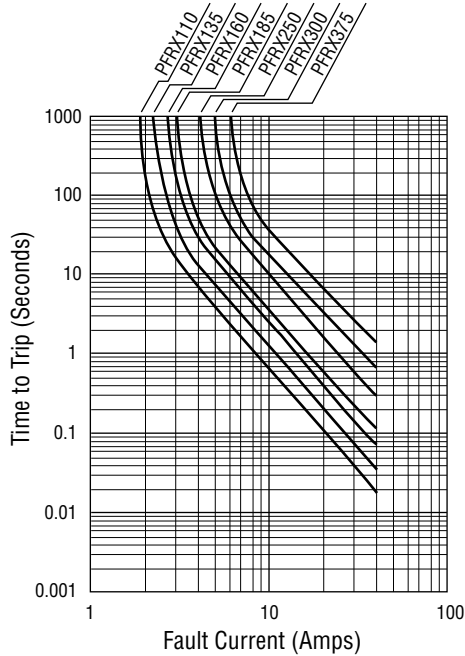


PFRX Polymeric PTC Resettable Fuse - Radial Leaded



Typical Time to Trip at 23°C



NEW

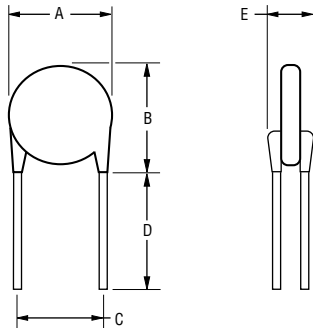


- Cured, flame retardant epoxy polymer insulating material meets UL 94V-0 requirements
- Bulk packaging, tape and reel and Ammo-Pak available on most models
- Applications: Almost anywhere there is a low voltage power supply, up to 60V and a load to be protected, including: computers & peripherals, general electronics, automotive applications

Approvals:

UL recognition, file #E172175 (60V)
CSA acceptance, file #CA702083 (60V)
TÜV certification, file #R9872200 (60V)

Package 1

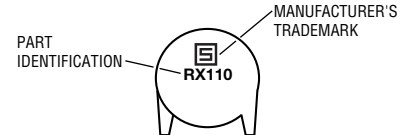


Lead Material
0.81 dia. (20AWG)

NOTE: Kinked lead option is available for board standoff. Contact factory for details.

Typical Part Marking

Represents total content. Layout may vary.



Technical Data

Operating/Storage Temperature	-40°C to +85°C	
Maximum Device Surface Temperature in Tripped State	125°C	
Passive Aging	+85°C, 1000 hours	±5% typical resistance change
Humidity Aging	+85°C, 85% R.H. 1000 hours	±5% typical resistance change
Thermal Shock	+125°C/-40°C 10 times	±10% typical resistance change
Mechanical Shock	MIL-STD-202, Method 213, Condition 1 (100g, 6 seconds)	No resistance change
Solvent Resistance	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-883C, Method 2007.1, Condition A	No change

Test Procedures And Requirements

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech.	Verify dimensions and materials	Per PF physical description
Resistance	In still air @ 23°C	$R_{min} \leq R \leq R_{max}$
Time to Trip	5 times Ihold, Vmax, 23°C	$T \leq \text{max. time to trip (seconds)}$
Hold Current	30 min. at Ihold	No trip
Trip Cycle Life	Vmax, Imax, 100 cycles	No arcing or burning
Trip Endurance	Vmax, 48 hours	No arcing or burning

PFRX Technical Data, continued



Electrical Characteristics

Model	V max. Volts	I max. Amps	I _{hold}	I _{trip}	Initial Resistance		1 Hour (R ₁) Post-Trip Resistance	Max. Time To Trip at 5*I _h	Tripped Power Dissipation
			Amperes at 23°C		Ohms at 23°C		Ohms at 23°C	Seconds at 23°C	Watts at 23°C
			Hold	Trip	Min.	Max.	Max.		
PFRX.110.X	60	40	1.10	2.20	0.15	0.25	0.38	8.2	1.50
PFRX.135.X	60	40	1.35	2.70	0.12	0.19	0.30	9.6	1.70
PFRX.160.X	60	40	1.60	3.20	0.09	0.14	0.22	11.4	1.90
PFRX.185.X	60	40	1.85	3.70	0.08	0.12	0.19	12.6	2.10
PFRX.250	60	40	2.50	5.00	0.05	0.08	0.13	15.6	2.50
PFRX.300	60	40	3.00	6.00	0.04	0.06	0.10	19.8	2.80
PFRX.375	60	40	3.75	7.50	0.03	0.05	0.08	24.0	3.20

Packaging options:

BULK: All models = 100 pcs. per bag.
(leave .X space empty)

TAPE & REEL: PFRX.110 – PFRX.160 = 1500 pcs. per reel; PFRX.185 = 1000 pcs. per reel
.X = 2

AMMO-PACK: PFRX.110 – PFRX.160 = 1000 pcs. per reel; PFRX.185 = 500 pcs. per reel
.X = 3

Product Dimensions

Model	A	B	C		D	E	Physical Characteristics		
	Max.	Max.	Nom.	Tol. ±	Min.	Max.	Style	Lead	Material
PFRX.110.X	13.0	18.0	5.1	0.7	7.6	3.1	1	0.81 dia.	Sn/Cu
PFRX.135.X	14.5	19.6	5.1	0.7	7.6	3.1	1	0.81 dia.	Sn/Cu
PFRX.160.X	16.3	21.3	5.1	0.7	7.6	3.1	1	0.81 dia.	Sn/Cu
PFRX.185.X	17.8	22.9	5.1	0.7	7.6	3.1	1	0.81 dia.	Sn/Cu
PFRX.250	21.3	26.4	10.2	0.7	7.6	3.1	1	0.81 dia.	Sn/Cu
PFRX.300	24.9	30.0	10.2	0.7	7.6	3.1	1	0.81 dia.	Sn/Cu
PFRX.375	28.4	33.5	10.2	0.7	7.6	3.1	1	0.81 dia.	Sn/Cu

DIMENSIONS = MM

Thermal Derating Chart - I_{hold} (Amps)

Part No.	Ambient Operating Temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PFRX.110.X	1.71	1.50	1.31	1.10	0.89	0.79	0.69	0.59	0.44
PFRX.135.X	2.09	1.84	1.61	1.35	1.09	0.97	0.85	0.73	0.54
PFRX.160.X	2.48	2.18	1.90	1.60	1.30	1.15	1.01	0.86	0.64
PFRX.185.X	2.87	2.52	2.20	1.85	1.50	1.33	1.17	1.00	0.74
PFRX.250	3.88	3.40	2.98	2.50	2.03	1.80	1.58	1.35	1.00
PFRX.300	4.65	4.08	3.57	3.00	2.43	2.16	1.89	1.62	1.20
PFRX.375	5.81	5.10	4.46	3.75	3.04	2.70	2.36	2.03	1.50

How to Order

Product Designator: PF RX . 110 . X

Style: _____

RX = Radial Leaded Component

Hold Current, I_{hold}: 110-375 (1.10 Amps - 3.75 Amps)

blank = Bulk Packaging
.2 = Tape and Reel*
.3 = Ammo-Pak*

*Packaged per EIA 486-B

Schurter's resettable fuses cross to many like products already on the market. See our online cross list at www.schurterinc.com/cross.htm

PFRX Tape and Reel Specifications

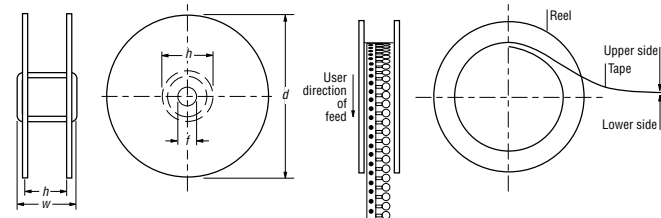
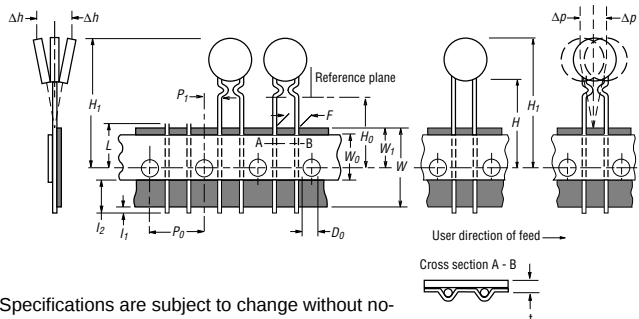


Devices taped using EIA468–B/IEC286-2 standards. See table below and Figures 1 and 2 for details.

Dimension Description	IEC Mark	EIA Mark	Dimensions	
			Dim. (mm)	Tol. (mm)
Carrier tape width	<i>W</i>	<i>W</i>	18	-0.5/+1.0
Hold down tape width		<i>W4</i>	5	min.
Hold down tape	<i>W0</i>		No protrusion	
Top distance between tape edges	<i>W2</i>	<i>W6</i>	3	max.
Sprocket hole position	<i>W1</i>	<i>W5</i>	9	-0.5/+0.75
Sprocket hole diameter	<i>D0</i>	<i>D0</i>	4	± 0.2
Abscissa to plane (straight lead)	<i>H</i>	<i>H</i>	18.5	± 3.0
Abscissa to plane (kinked lead)	<i>H0</i>	<i>H0</i>	16	± 0.5
Abscissa to top	<i>H1</i>	<i>H1</i>	32.2	max.
Overall width w/lead protrusion		<i>C1</i>	43.2	max.
Overall width w/o lead protrusion		<i>C2</i>	42.5	max.
Lead protrusion	<i>I1</i>	<i>L1</i>	1.0	max.
Protrusion of cutout	<i>L</i>	<i>L</i>	11	max.
Protrusion beyond hold tape	<i>I2</i>	<i>I2</i>	Not specified	
Sprocket hole pitch	<i>P0</i>	<i>P0</i>	12.7	± 0.3
Pitch tolerance			20 seconds	± 1
Device pitch: PFRX.110 – PFRX.160			12.7	
Device pitch: PFRX.185 – PFRX.375			25.4	
Tape thickness	<i>t</i>	<i>t</i>	0.9	max.
Tape thickness with splice		<i>t1</i>	2.0	max.
Splice sprocket hole alignment			0	± 0.3
Body lateral deviation	Δh	Δh	0	± 1.0
Body tape plane deviation	Δp	Δp	0	± 1.3
Lead seating plane deviation	$\Delta P1$	<i>P1</i>	0	± 0.7
Lead spacing	<i>F</i>	<i>F</i>	5.08	± 0.8
Reel width	<i>w</i>	<i>w</i>	56	max.
Reel diameter	<i>d</i>	<i>a</i>	370	max.
Space between flanges less device			4.75	± 3.25
Arbor hole diameter	<i>f</i>	<i>c</i>	26	± 12.0
Core diameter	<i>h</i>	<i>n</i>	80	max.
Box			56/372/372	max.
Consecutive missing places			3 maximum	
Empty places per reel			Not specified	

Taped Component Dimensions

Reel Dimensions



Specifications are subject to change without notice.