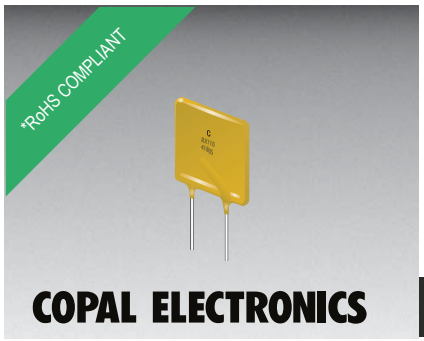


COPAL ELECTRONICS

Features

- 72 V rated
- Radial leaded devices
- Cured,flame retardant epoxy polymer insulating material meets UL 94V-0 requirements
- RoHS compliant* and halogen free**
- Agency recognition:

Applications

Almost anywhere there is a low voltage power supply, up to 72 V and a load to be protected,including:

- Security and fire alarm systems
- Loudspeakers
- Power transformers

PRCP-RX/72 Series - Polymer Resettable Circuit Protectors

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		Tripped Power Dissipation
			Amperes at 23 °C		Ohms at 23 °C		Ohms at 23 °C	Amperes at 23 °C	Seconds at 23 °C	Watts at 23 °C
			Hold	Trip	Min.	Max.	Max.			Typ.
PRCP-RX020/72	72	40	0.20	0.40	1.50	2.84	4.40	1.0	2.2	0.40
PRCP-RX025/72	72	40	0.25	0.50	1.00	1.95	3.00	1.25	2.5	0.45
PRCP-RX030/72	72	40	0.30	0.60	0.76	1.36	2.10	1.5	3.0	0.50
PRCP-RX040/72	72	40	0.40	0.80	0.52	0.86	1.29	2.0	3.9	0.55
PRCP-RX050/72	72	40	0.50	1.00	0.41	0.77	1.17	2.5	4.0	0.75
PRCP-RX065/72	72	40	0.65	1.30	0.27	0.48	0.72	3.25	5.3	0.90
PRCP-RX075/72	72	40	0.75	1.50	0.18	0.40	0.60	3.75	6.3	0.90
PRCP-RX090/72	72	40	0.90	1.80	0.14	0.31	0.47	4.5	7.2	1.00
PRCP-RX110/72	72	40	1.10	2.20	0.15	0.25	0.38	5.5	8.2	1.50
PRCP-RX135/72	72	40	1.35	2.70	0.12	0.19	0.30	6.75	9.6	1.70
PRCP-RX160/72	72	40	1.60	3.20	0.09	0.14	0.22	8.0	11.4	1.90
PRCP-RX185/72	72	40	1.85	3.70	0.08	0.12	0.19	9.25	12.6	2.10
PRCP-RX250/72	72	40	2.50	5.00	0.05	0.08	0.13	12.5	15.6	2.50
PRCP-RX300/72	72	40	3.00	6.00	0.04	0.06	0.10	15.0	19.8	2.80
PRCP-RX375/72	72	40	3.75	7.50	0.03	0.05	0.08	18.75	24.0	3.20

Environmental Characteristics

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	+85 °C to -55 °C, 10 times	± 10% typical 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 For Model PRCP-RX/72 Series

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech	Verify dimensions and materials	Per PRCP physical description
Resistance	In still air @ 23°C	Rmin ≤ R ≤ R1 max
Time to Trip	5 times Ihold,Vmax, 23 °C	T ≤ 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

UL File Number....E300792

CSA File Number....CA1730526

TÜV Certificate Number....R 50075506

* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

** COPAL follows the prevailing definition of "halogen free" in the industry. COPAL considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Additional Features

- Resettable circuit protection
- Bulk packaging, tape and reel available on most models

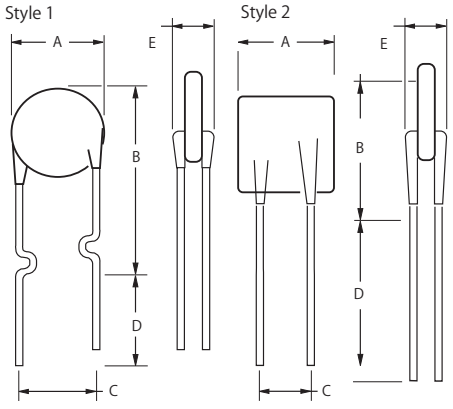
PRCP-RX/72 Series - Polymer Resettable Circuit Protectors COPAL ELECTRONICS

Product Dimensions

Model	A	B	C		D	E	Physical Characteristics		
	Max.	Max.	Nom.	Tol.±	Min.	Max.	Style	Lead Dia.	Material
PRCP-RX020/72	7.4 (0.291)	12.7 (0.5)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe
PRCP-RX025/72	7.4 (0.291)	12.7 (0.5)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe
PRCP-RX030/72	7.4 (0.291)	13.4 (0.528)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe
PRCP-RX040/72	7.4 (0.291)	13.7 (0.539)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/CuFe
PRCP-RX050/72	7.9 (0.311)	13.7 (0.539)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	10.51 (0.020)	Sn/Cu
PRCP-RX065/72	9.7 (0.382)	15.2 (0.598)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/Cu
PRCP-RX075/72	10.4 (0.409)	16.0 (0.630)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/Cu
PRCP-RX090/72	11.7 (0.461)	16.70 (0.657)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	1	0.51 (0.020)	Sn/Cu
PRCP-RX110/72	10.84 (0.427)	16.84 (0.662)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu
PRCP-RX135/72	12.26 (0.483)	18.26 (0.718)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu
PRCP-RX160/72	13.94 (0.549)	19.94 (0.785)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu
PRCP-RX185/72	15.18 (0.598)	21.18 (0.833)	5.1 (0.201)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu
PRCP-RX250/72	17.84 (0.702)	23.84 (0.938)	10.2 (0.402)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu
PRCP-RX300/72	20.67 (0.814)	26.67 (1.050)	10.2 (0.402)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu
PRCP-RX375/72	23.51 (0.926)	29.51 (1.161)	10.2 (0.402)	0.7 (0.028)	7.6 (0.30)	3.1 (0.122)	2	0.81 (0.032)	Sn/Cu

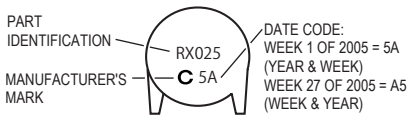
Packaging options:
BULK: 500 pcs. per bag.
TAPE & REEL: PRCP-RX020/72-2 ~ PRCP-RX090/72-2 = 3000 pcs. per reel; PRCP-RX110/72-2 ~ PRCP-RX160/72-2 = 1500 pcs. per reel;
PRCP-RX185/72-2 ~ PRCP-RX375/72-2 = 1000 pcs. per reel.

DIMENSIONS = MM (INCHES)



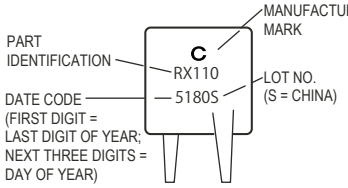
Typical Part Marking: RX020/72-RX025/72

Represents total content. Layout may vary.



Typical Part Marking: RX030/72-RX375/72

Represents total content. Layout may vary.



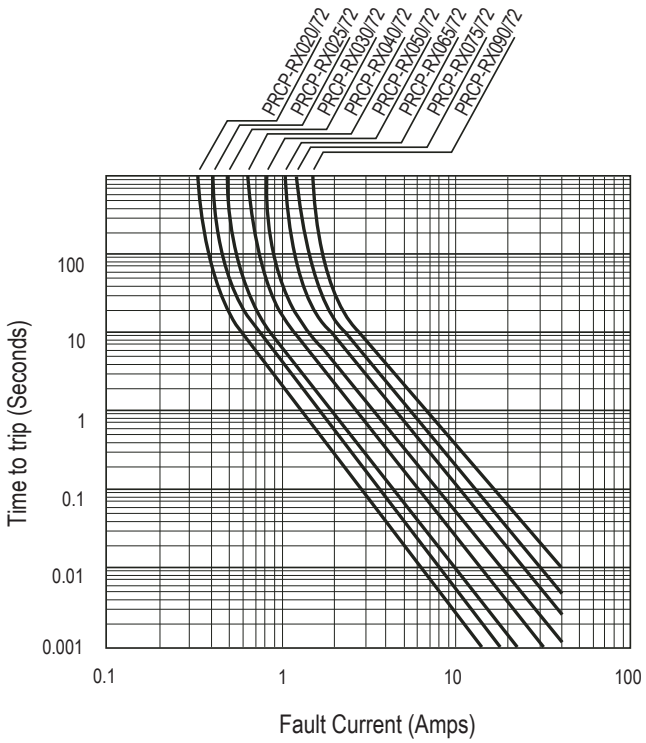
How to Order

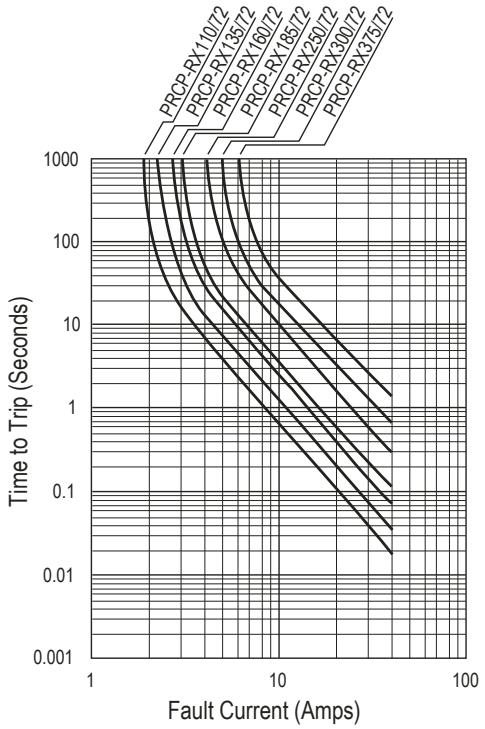
PRCP - RX 110/72 - 2

- Product Designator: PRCP
- Series: RX = Radial Leaded Component
- Hold Current, Ihold: 020-375 (0.20 Amps - 3.75 Amps)
- Maximum Voltage, Vmax: 72 (72 Volts)
- Packaging Options: - 0 = Bulk Packaging; - 2 = Tape and Reel*

*Packaged per EIA 486-B

Typical Time to Trip at 23 °C





The Time to Trip curves represent typical performance of a device in a simulated application environment.
Actula performance in specific customer applications may differ from these values due to the influence of other variables.

Thermal Derating Chart - I_{hold} (Amps)

Model	Ambient Operating Temperature								
	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
PRCP-RX020/72	0.31	0.27	0.24	0.20	0.16	0.14	0.13	0.11	0.08
PRCP-RX025/72	0.39	0.34	0.30	0.25	0.20	0.18	0.16	0.14	0.10
PRCP-RX030/72	0.47	0.41	0.36	0.30	0.24	0.22	0.19	0.16	0.12
PRCP-RX040/72	0.62	0.54	0.48	0.40	0.32	0.29	0.25	0.22	0.16
PRCP-RX050/72	0.78	0.68	0.60	0.50	0.41	0.36	0.32	0.27	0.20
PRCP-RX065/72	1.01	0.88	0.77	0.65	0.53	0.47	0.41	0.35	0.26
PRCP-RX075/72	1.16	1.02	0.89	0.75	0.61	0.54	0.47	0.41	0.30
PRCP-RX090/72	1.40	1.22	1.07	0.90	0.73	0.65	0.57	0.49	0.36
PRCP-RX110/72	1.71	1.50	1.31	1.10	0.89	0.79	0.69	0.59	0.44
PRCP-RX135/72	2.09	1.84	1.61	1.35	1.09	0.97	0.85	0.73	0.54
PRCP-RX160/72	2.48	2.18	1.90	1.60	1.30	1.15	1.01	0.86	0.64
PRCP-RX185/72	2.87	2.52	2.20	1.85	1.50	1.33	1.17	1.00	0.74
PRCP-RX250/72	3.88	3.40	2.98	2.50	2.03	1.80	1.58	1.35	1.00
PRCP-RX300/72	4.65	4.08	3.57	3.00	2.43	2.16	1.89	1.62	1.20
PRCP-RX375/72	5.81	5.10	4.46	3.75	3.04	2.70	2.36	2.03	1.50

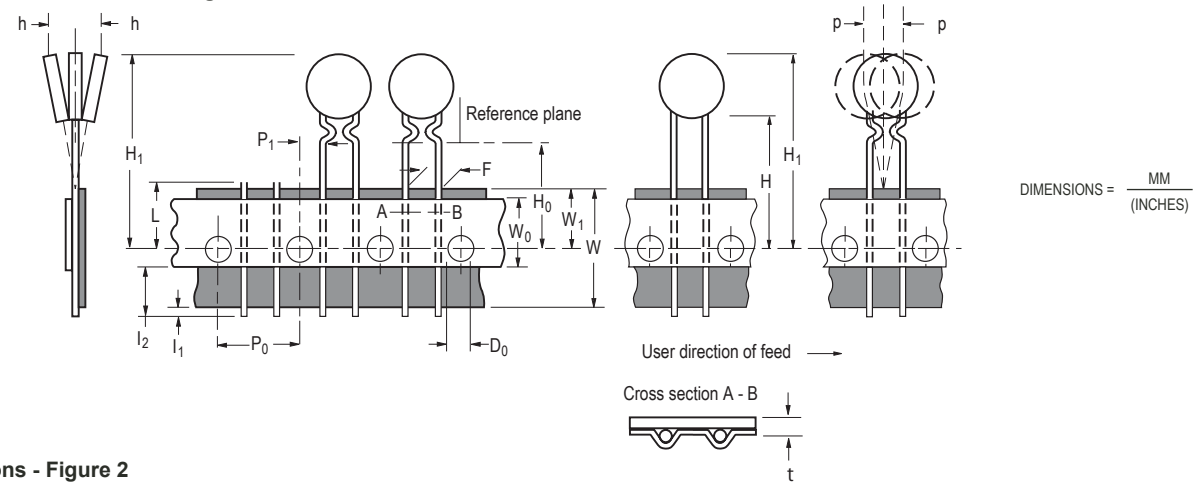
Devices taped using EIA468–B/IEC286-2 standards. See table below and Figures 1 and 2 for details.

Dimension Description	IEC Mark	EIA Mark	Dimensions	
			Dimensions	Tolerance
Carrier tape width	W	W	18 (.709)	-0.5/+1.0 (-0.02/+.039)
Hold down tape width	W_0	W_4	11 (.433)	min.
Hold down tape			No protrusion	
Top distance between tape edges	W_2	W_6	3 (.118)	max.
Sprocket hole position	W_1	W_5	9 (.354)	-0.5/+0.75 (-0.02/+0.03)
Sprocket hole diameter	D_0	D_0	4 (.157)	±0.2 (±.0078)
Abscissa to plane (straight lead)	H	H	18.5 (.728)	±3.0 (±.118)
Abscissa to plane (kinked lead)	H_0	H_0	16 (.63)	±0.5 (±.02)
Abscissa to top (straight lead)	H_1	H_1	38.0 (1.496)	max.
Abscissa to top (kinked lead)	H_1	H_1	32.2 (1.268)	max.
Overall width w/lead protrusion (straight lead)		C_1	55.0 (2.165)	max.
Overall width w/lead protrusion (kinked lead)		C_1	43.2 (1.7)	max.
Overall width w/o lead protrusion (straight lead)		C_2	54.0 (2.126)	max.
Overall width w/o lead protrusion (kinked lead)		C_2	42.5 (1.673)	max.
Lead protrusion	l_1	L_1	1.0 (.039)	max.
Protrusion of cutout	L	L	11 (.433)	max.
Protrusion beyond hold-down tape	l_2	l_2	Not specified	
Sprocket hole pitch	P_0	P_0	12.7 (0.5)	±0.3 (±.012)
Pitch tolerance			20 consecutive	±1 (±.039)
Device pitch: PRCP-RX020/72-PRCP-RX185/72			12.7 (0.5)	±0.3 (±.012)
Device pitch: PRCP-RX250/72–PRCP-RX375/72			25.4 (1.0)	±0.6 (±.024)
Tape thickness	t	t	0.9 (.035)	max.
Tape thickness with splice: PRCP-RX020/72–PRCP-RX185/72		t_1	1.5 (.059)	max.
Tape thickness with splice: PRCP-RX250/72–PRCP-RX375/72		t_1	2.3 (.091)	max.
Splice sprocket hole alignment			0	±0.3 (±.012)
Body lateral deviation	Δh	Δh	0	±1 (±.039)
Body tape plane deviation	Δp	Δp	0	±1.3 (±.051)
Lead seating plane deviation	ΔP_1	ΔP_1	3.81 (.015)	±0.7 (±.028)
Lead spacing : PRCP-RX110/72-PRCP-RX185/72	F	F	5.08 (0.2)	-0.2/+0.8 (-0.006/+0.031)
Lead spacing : PRCP-RX250/72-PRCP-RX375/72	F	F	10.2 (0.402)	-0.2/+0.8 (-0.006/+0.031)

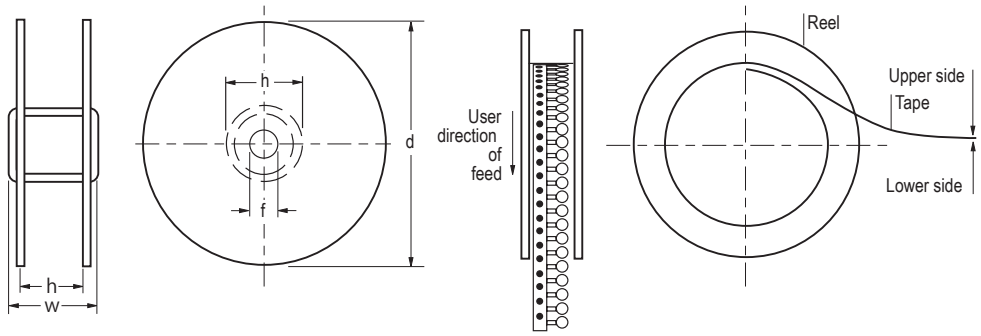
DIMENSIONS = MM (INCHES)

Dimension Description	IEC Mark	EIA Mark	Dimensions	Tolerance
Reel width	w	W_2	56 (2.205)	max.
Reel diameter	d	a	370 (14.57)	max.
Space between flanges less device	W_1	h	4.75 (.187)	±3.25 (±.128)
Arbor hole diameter	f	c	26.0 (1.024)	±12.0 (±.472)
Core diameter	h	n	80 (3.15)	max.
Box			62 (2.44) 355 (14.0) 345 (13.6)	max.
Consecutive missing places			3	max.
Empty places per reel			Not specified	

Taped Component Dimensions - Figure 1



Reel Dimensions - Figure 2



Revision History

Date	Rev.	Reason
12/20/2005	A	Initial issue
03/13/2006	B	Updated TÜV File Number
03/30/2006	C	Updated UL, CSA File Number
12/21/2007	D	Added RX020/72 to RX090/72 model
07/15/2011	E	Updated Typical Part Marking
10/02/2013	F	Updated Tape and Reel Specifications
05/09/2014	G	Updated Features and Product Dimensions
10/17/2014	H	Updated Tape and Reel Specifications
06/02/2015	I	Updated Features (Added halogen free)
12/22/2015	J	Updated Box Dimensions