Features

- Radial leaded devices
- Smaller size for similar I hold rating
- Faster tripping
- RoHS compliant* and halogen free**
- Agency recognition: c UL us

Applications

- Automotive applications
- Anywhere space is limited and fast tripping is required

PRCP-RG Series - Polymer Resettable Circuit Protectors

Electrical Characteristics

Model	V max. Volts	I max. Amps	I_{hold}	I_{trip}	Initial Resistance		1Hour(R_1) Post- Trip Resistance	Max. Time To Trip		Tripped Power Dissipation
			Amperes at 23 ℃		Ohms at 23 ℃		Ohms at 23 ℃	Amperes at 23 ℃	Seconds at 23 ℃	Watts at 23 ℃
			Hold	Trip	Min.	Max.	Max.			Typ.
PRCP-RG300	16	100	3.00	5.10	0.038	0.065	0.0975	15	1.0	2.30
PRCP-RG500	16	100	5.00	8.50	0.015	0.023	0.0340	25	2.0	2.60

Environmental Characteristics

Operating/Storage Temperature.....-40 ℃ to 85 ℃
Maximum Device Surface Temperature in Tripped State.....125 ℃
Passive Aging.....+85 ℃,1000 hours.....±5 % typical resistance change
Humidity Aging.....+85 ℃,85 % R.H. 1000 hours.....±5 % typical resistance change
Thermal Shock.....+85 ℃ to -40 ℃,20 times.....±10 % typical resistance change
Solvent Resistance.....MIL-STD-202, Method215.....No change
Vibration.....MIL-STD-883C,Method 2007.1, Condition A.....No change

Test Procedures And Requirements For Model PRCP-RG Series

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech	Verify dimensions and materials	Per P.R.C.P. physical description
Resistance	In still air @ 23 ℃	Rmin ≤ R ≤ R1max
Time to Trip	At specified current,Vmax,23 ℃	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

Thermal Derating Chart - I_{hold} (Amps)

Model	Ambient Operating Temperature								
	-40 ℃	-20 ℃	0 ℃	23 ℃	40 ℃	50 ℃	60 ℃	70 ℃	85 ℃
PRCP-RG300	4.4	4.0	3.6	3.0	2.6	2.4	2.1	1.9	1.4
PRCP-RG500	7.3	6.6	6.0	5.0	4.4	4.0	3.6	3.1	2.4

*I_{trip} is approximately two times I_{hold}.

*RoHS Directive 2015/863 Mar. 31 2015 and Annex.
**NIDEC COMPONENTS follows the prevailing definition of "halogen free" in the industry. NIDEC COMPONENTS 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.

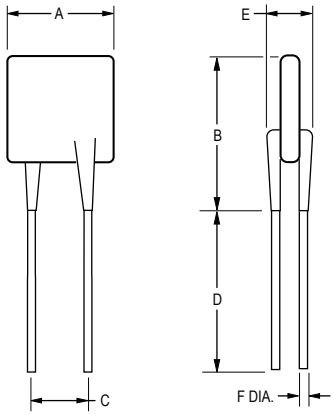
PRCP-RG Series - Polymer Resettable Circuit Protectors

Product Dimensions

Model	A	B	C		D	E	F	Physical Characteristics
	Max.	Max.	Nom.	Tol. ±	Min.	Max.	Nom.	Material
PRCP-RG300	7.1 (0.280)	11.0 (0.433)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.0 (0.118)	0.81 (0.032)	Sn/Cu
PRCP-RG500	10.4 (0.409)	14.3 (0.563)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.0 (0.118)	0.81 (0.032)	Sn/Cu

Packaging options:
BULK: 500 pcs. per bag.TAPE & REEL: 3000 pcs. per reel.

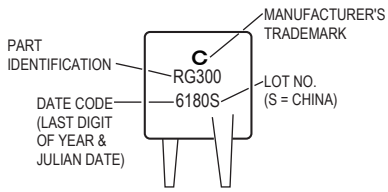
0.81 (20AWG) DIMENSIONS = MM (INCHES)



NOTE: Kinked leads are available for board standoff options. Contact factory for details.

Typical Part Marking

Represents total content. Layout may vary.



How to Order

PRCP - RG 300 - 0

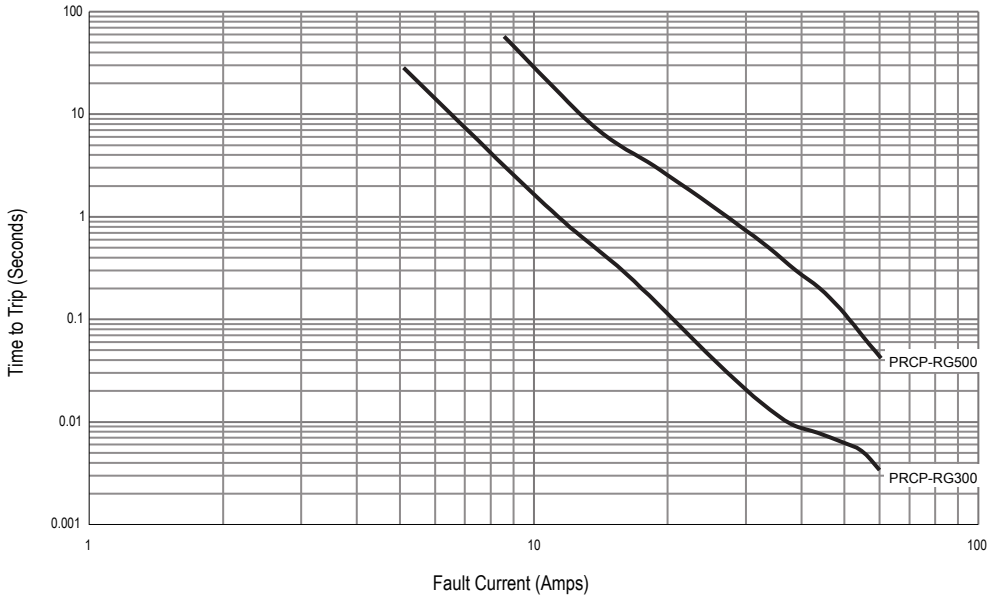
Product Designator

Style
RG = Smaller Radial Leaded Component Component

Hold Current, I_{hold}
300-500 (3.0 Amps - 5.0 Amps)

Packaging Options
- 0 = Bulk Packaging
- 2 = Tape and Reel

Typical Time to Trip at 23 °C



PRCP-RG Series Tape and Reel Specifications

Devices taped using EIA468–B/IEC60286-2 standards. See table below and Figures 1 and 2 for details.

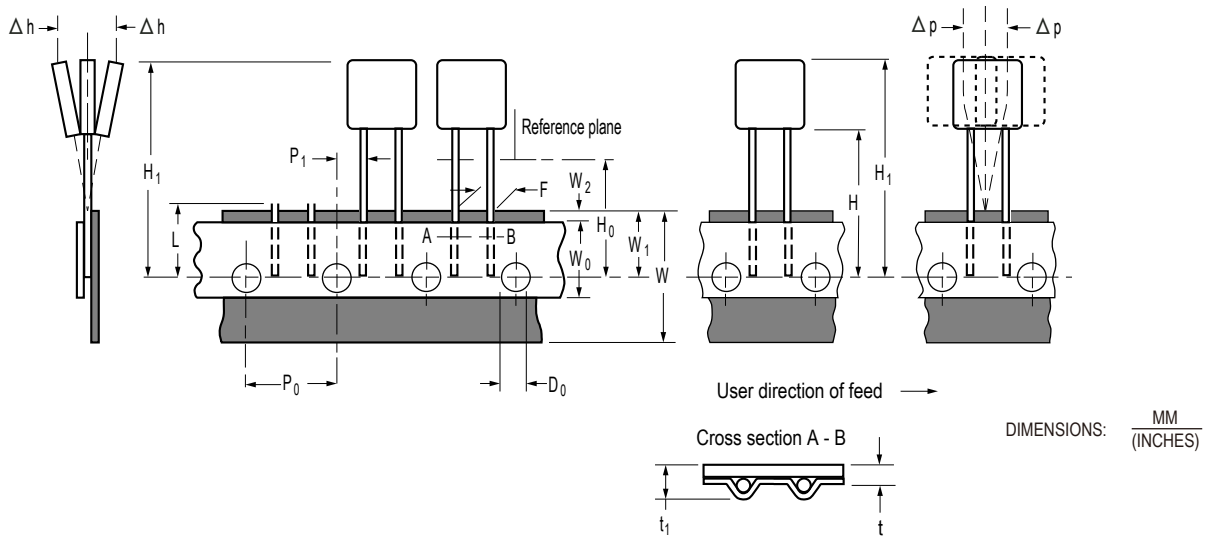
Dimension Description	IEC Mark	EIA Mark	Dimensions	
			Dimension	Tolerance
Carrier tape width	W	W	18 (0.709)	-0.5/+1.0 (-0.02/+0.039)
Hold down tape width		W4	11 (0.433)	min.
Hold down tape	W_0		No protrusion	
Top distance between tape edges	W_2	W_6	3 (0.118)	max.
Sprocket hole position	W_1	W_5	9 (0.354)	-0.5/+0.75 (-0.02/+0.03)
Sprocket hole diameter	D_0	D_0	4 (0.157)	±0.2 (±0.0078)
Abscissa to plane (straight lead)	H	H	18.5 (0.728)	±3.0 (±0.118)
Abscissa to plane (kinked lead)	H_0	H_0	16 (0.63)	±0.5 (±0.02)
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 (0.039)	max.
Protrusion of cutout	L	L	11 (0.433)	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 (±0.012)
Pitch tolerance			20 consecutive	±1 (±0.039)
Device pitch			12.7 (0.5)	
Tape thickness	t	t	0.9 (0.035)	max.
Tape thickness with splice		t_1	2.0 (0.079)	max.
Splice sprocket hole alignment			4.0 (0.157)	±0.2 (±0.008)
Body lateral deviation	Δ_h	Δ_h	0	±1 (±0.039)
Body tape plane deviation	Δ_p	Δ_p	0	±1.3 (±0.051)
Lead seating plane deviation	ΔP_1	P_1	3.81 (0.015)	±0.7 (±0.028)
Lead spacing	F	F	8.0 (0.315)	
Reel width	w	w	56.0 (2.20)	max.
Reel diameter	d	a	370.0 (14.57)	max.
Space between flanges less device			4.75 (0.187)	±3.25 (±0.128)

DIMENSIONS = MM (INCHES)

PRCP-RG Series Tape and Reel Specifications

Dimension Description	IEC Mark	EIA Mark	Dimensions	
			Dimension	Tolerance
Arbor hole diameter	f	c	26.0 (1.02)	±12.0 (±0.472)
Core diameter	h	n	80.0 (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