

Raychem PolySwitch® Resettable Fuses



PolySwitch circuit protection devices protect electrical and electronic circuits against excessive current, voltage, and temperature. Like fuses and circuit breakers, PolySwitch devices interrupt the flow of dangerously high currents, whether due to excessive voltage or to a fault condition within the circuit. After switching, the PolySwitch device is latched into its high-resistance, protective state by the small, sustained self-heating current. The protector will reset only after it has cooled and the fault condition has been corrected, thus avoiding continuous cycling that

could cause circuit damage. The protector requires no manual resetting or replacement. **Definitions:** Maxium Voltage: The highest voltage the device can withstand (in its tripped state) without damage. Hold Current: The maximum continuous current that will not cause the device to trip at 20°C. Trip Current: The minimum continuous current that will cause the device to trip at 20°C. Maxium Current: The largest fault current, at rated voltage, the device can interrupt without being damaged. Maximum R: Maximum non-tripped resistance of the device.

1 — Strap Series

These products provide reliable, non-cycling protection for rechargeable batteries. Weldable nickel leads and a narrow, low-profile design make these devices extremely easy to install on the edges of battery packs.

2 — RXE Series

These products function as the general purpose line of circuit protectors and are well suited for power supplies, alarm systems, speakers, motors and many other applications. The RXE products range in hold currents from .10 to 3.75 amps and complement the RUE devices by providing a higher voltage rating.

3 — RUE Series

These devices are also designed to be used in a wide variety of general electronics applications. They complement the RXE line by providing a smaller form factor with lower resistance and higher hold current capability (up to 9 amps).

4 — TR Series

This family uses a new geometry to build high voltage (250V-600V) products for telecommunications applications.

5 — Encapsulated TR Series

This family uses a new geometry to build high voltage (250V-600V) products for telecommunications applications.

6 — Surface Mount Series

This product line is specifically designed for surface mount applications. The products range in hold currents from 0.3 amps to 2.5 amps and voltages from 15 volts to 60 volts. These devices are ideally suited for high density board applications in computer and computer peripheral products, telecommunications and general electronics applications. They are designed to be reflowed onto a PCB using standard surface mount processes. Packaged per EIA-481 standard.

7 — Mini-Surface Mount Series

The miniSMD resettable fuses extremely small size makes them excellent choices for keyboard and mouse ports, SCSI devices, battery packs, PC cards and sockets, cellular modems and phones, and portable electronic equipment. SMT packaging for automated assembly compared to SMD the MINISMD offers: 40% reduction in size, 300% faster time to trip, 50% reduction in DC resistance, 68% reduction in profile, 80% reduction in mass and drop in replacement for the NANO 2 fuse in many applications.

Fig. No.	Max Volt.	Rated Current (20°C) (amps)		Max Current	RMax Initial (Ohms)	Recognized By	Dimensions			Digi-Key Part No.	Pricing				Raychem Part No.	
		Hold	Trip				A	B	C		1	10	100	500		1000
Strap Series																
1	15	1.20	2.31	100	0.16	UL, TUV	.87	.20	.04	SRP120-ND	1.14	10.45	95.00	418.00	731.50	SRP120
1	15	1.75	3.44	100	0.09	UL, TUV	.91	.20	.04	SRP175-ND	1.14	10.45	95.00	418.00	731.50	SRP175
1	30	2.00	4.40	100	0.06	UL, TUV	.92	.43	.04	SRP200-ND	1.14	10.45	95.00	418.00	731.50	SRP200
1	30	3.50	6.30	100	0.03	UL, TUV	1.25	.53	.04	SRP350-ND	1.20	11.00	100.00	433.33	761.90	SRP350
1	30	4.20	7.80	100	0.02	UL, TUV	1.25	.53	.04	SRP420-ND	1.20	11.00	100.00	433.33	761.90	SRP420
RXE Series																
2	60	0.10	0.20	40	4.50	UL, TUV, CSA	.29	.50	.2	RXE010-ND	.72	6.60	60.00	235.38	406.15	RXE010
2	60	0.17	0.34	40	5.40	UL, TUV, CSA	.29	.51	.2	RXE017-ND	.78	7.15	65.00	260.00	452.59	RXE017
2	60	0.20	0.40	40	2.84	UL, TUV, CSA	.29	.48	.2	RXE020-ND	.78	7.15	65.00	260.00	452.59	RXE020
2	60	0.25	0.50	40	1.95	UL, TUV, CSA	.29	.50	.2	RXE025-ND	.78	7.15	65.00	260.00	445.72	RXE025
2	60	0.30	0.60	40	1.36	UL, TUV, CSA	.29	.51	.2	RXE030-ND	.78	7.15	65.00	260.00	445.72	RXE030
2	60	0.40	0.80	40	0.86	UL, TUV, CSA	.30	.53	.2	RXE040-ND	.81	7.43	67.50	265.35	456.21	RXE040
2	60	0.50	1.00	40	0.77	UL, TUV, CSA	.31	.54	.2	RXE050-ND	.84	7.70	70.00	284.83	492.41	RXE050
2	60	0.65	1.30	40	0.48	UL, TUV, CSA	.38	.57	.2	RXE065-ND	.87	7.98	72.50	290.00	502.67	RXE065
2	60	0.75	1.50	40	0.40	UL, TUV, CSA	.41	.60	.2	RXE075-ND	.90	8.25	75.00	300.00	512.90	RXE075
2	60	0.90	1.80	40	0.31	UL, TUV, CSA	.46	.62	.2	RXE090-ND	.90	8.25	75.00	295.31	515.63	RXE090
2	50	1.10	2.20	40	0.25	UL, TUV, CSA	.51	.71	.2	RXE110-ND	.93	8.53	77.50	314.84	542.50	RXE110
2	50	1.35	2.70	40	0.19	UL, TUV, CSA	.57	.77	.2	RXE135-ND	.93	8.53	77.50	314.84	542.50	RXE135
2	50	1.60	3.20	40	0.14	UL, TUV, CSA	.64	.84	.2	RXE160-ND	.96	8.80	80.00	320.00	555.29	RXE160
2	50	1.85	3.70	40	0.12	UL, TUV, CSA	.70	.90	.2	RXE185-ND	.99	9.08	82.50	325.29	565.72	RXE185
2	50	2.50	5.00	40	0.08	UL, TUV, CSA	.84	1.04	.4	RXE250-ND	1.08	9.90	90.00	364.74	625.26	RXE250
2	50	3.00	6.00	40	0.06	UL, TUV, CSA	.98	1.18	.4	RXE300-ND	1.14	10.45	95.00	384.63	667.32	RXE300
2	50	3.75	7.50	40	0.05	UL, TUV, CSA	1.12	1.30	.4	RXE375-ND	1.14	10.45	95.00	384.32	665.00	RXE375
RUE Series																
3	30	0.90	1.80	40	0.12	UL, CSA	.26	.48	.2	RUE090-ND	.87	7.98	72.50	290.00	502.67	RUE090
3	30	1.10	2.20	40	0.10	UL, CSA	.26	.56	.2	RUE110-ND	.87	7.98	72.50	290.00	502.67	RUE110
3	30	1.35	2.70	40	0.08	UL, CSA	.35	.53	.2	RUE135-ND	.87	7.98	72.50	290.00	512.33	RUE135
3	30	1.60	3.20	40	0.07	UL, CSA	.35	.60	.2	RUE160-ND	.90	8.25	75.00	300.00	515.63	RUE160
3	30	1.85	3.70	40	0.06	UL, CSA	.40	.62	.2	RUE185-ND	.96	8.80	80.00	320.00	552.73	RUE185
3	30	2.50	5.00	40	0.04	UL, CSA	.45	.72	.2	RUE250-ND	1.02	9.35	85.00	340.00	592.57	RUE250
3	30	3.00	6.00	40	0.05	UL, CSA	.45	.68	.2	RUE300-ND	1.08	9.90	90.00	360.00	615.79	RUE300
3	30	4.00	8.00	40	0.03	UL, CSA	.55	.79	.2	RUE400-ND	1.14	10.45	95.00	380.00	655.50	RUE400
3	30	5.00	10.00	40	0.03	UL, CSA	.55	.98	.4	RUE500-ND	1.20	11.00	100.00	400.00	695.24	RUE500
3	30	6.00	12.00	40	0.02	UL, CSA	.65	.98	.4	RUE600-ND	1.26	11.55	105.00	420.00	735.00	RUE600
3	30	7.00	14.00	40	0.02	UL, CSA	.75	1.05	.4	RUE700-ND	1.32	12.10	110.00	440.00	755.65	RUE700
3	30	8.00	16.00	40	0.02	UL, CSA	.85	1.15	.4	RUE800-ND	1.38	12.65	115.00	460.00	795.42	RUE800
3	30	9.00	18.00	40	0.01	UL, CSA	.95	1.17	.4	RUE900-ND	1.47	13.48	122.50	490.00	845.49	RUE900
TR Series																
4	250	0.120	0.300	3	10.0	UL	.23	.23	.15	TR120U-ND	.81	7.43	67.50	274.50	477.00	TR250-120U
4	250	0.145	0.360	3	6.5	UL	.23	.23	.15	TR145U-ND	.81	7.43	67.50	274.50	477.00	TR250-145U
4	250	0.180	0.450	3	2.0	UL	.41	.26	.14	TR180U-ND	1.02	9.35	85.00	344.72	595.00	TR250-180U
5	250	0.210	0.300	3	8.0	UL	.25	.25	.18	TR120-ND	.90	8.25	75.00	300.00	518.18	TR250-120
5	250	0.145	0.360	3	6.0	UL	.25	.25	.18	TR145-ND	.90	8.25	75.00	300.00	518.18	TR250-145
5	600	0.150	0.375	3	12.0	UL	.53	.35	.23	TR150-ND	1.41	12.93	117.50	474.61	820.20	TR600-150

Fig. No.	Max Volt.	Rated Current (20°C) (amps)		Max Current	RMax Initial (Ohms)	Recognized By	Dimensions						Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape & Reel Pricing			Raychem Part No.
		A	B				C	D	E	F	1	10		100	1500	2000		6000			
Surface Mount																					
6	60	0.30	0.60	10	2.40	UL, CSA, TUV	.31	.125	.21	.12	.22	.38	SMD030CT-ND	1.33	11.40	104.50	SMD030TR-ND	—	750.00/M	600.00/M	SMD030-2
6	60	0.50	1.00	10	0.70	UL, CSA, TUV	.31	.125	.21	.12	.22	.38	SMD050CT-ND	1.33	11.40	104.50	SMD050TR-ND	—	750.00/M	600.00/M	SMD050-2
6	30	0.75	1.50	40	0.50	UL, CSA, TUV	.31	.125	.21	.12	.22	.38	SMD075CT-ND	1.33	11.40	104.50	SMD075TR-ND	—	750.00/M	600.00/M	SMD075-2
6	30	1.10	2.20	40	0.24	UL, CSA, TUV	.31	.118	.21	.12	.22	.38	SMD100CT-ND	1.26	10.80	99.00	SMD100TR-ND	—	720.00/M	570.00/M	SMD100-2
6	15	1.25	2.50	40	0.14	UL, CSA, Pend TUV	.31	.118	.21	.12	.22	.38	SMD125CT-ND	1.26	10.80	99.00	SMD125TR-ND	—	720.00/M	570.00/M	SMD125-2
6	15	1.50	3.00	40	0.12	UL, CSA, TUV	.37	.118	.26	.18	.26	.42	SMD150CT-ND	1.33	11.40	104.50	SMD150TR-ND	750.00/M	—	600.00/M	SMD150-2
6	15	2.00	4.00	40	0.080	—	.37	.118	.26	.18	.26	.42	SMD200CT-ND	1.33	11.40	104.50	SMD200TR-ND	750.00/M	—	600.00/M	SMD200-2
6	15	2.50	5.00	40	0.065	—	.37	.118	.26	.18	.26	.42	SMD250CT-ND	1.33	11.40	104.50	SMD250TR-ND	750.00/M	—	600.00/M	SMD250-2
Mini-Surface Mount																					
7	15	0.50	1.00	40	1.00	UL	.186	.134	.02	—	—	—	MINISMD050CT-ND	1.02	8.70	79.75	MINISMD050TR-ND	522.00/M	—	449.50/M	MINISMD050-2
7	13.2	0.75	1.50	40	0.45	UL (pendig)	.186	.134	.02	—	—	—	MINISMD075CT-ND	1.02	8.70	79.75	MINISMD075TR-ND	522.00/M	—	449.50/M	MINISMD075-2

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