CERATECH CORPORATION

POLYRESET

Polymer PTC Resettable Fuse Strap Type

LS series

(1) Features

1. Overcurrent and overtemperature protection device has a low resistance and high hold current.
2. Axial / radial leaded.
3. Fully compatible with current industry standards.
4. Weldable nickel terminals.
5. Very low internal resistance.

(2) Applications

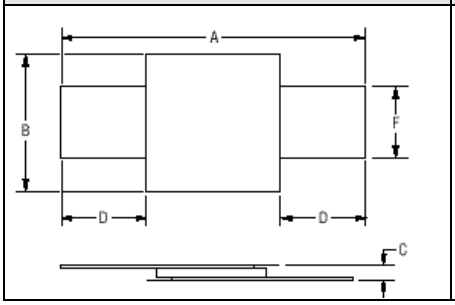
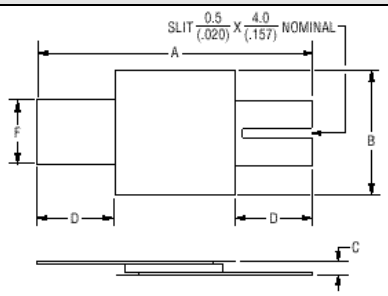
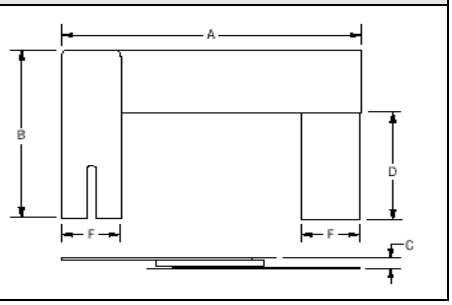
1. General electronics.
2. Any application that requires extra protection at elevated ambient provides, which the 100℃ trip temperature provides.
3. Rechargeable battery pack protection.
4. Cellular phones.
5. Laptop computers.

(3) Ordering Information

PR - LS - 070 S - B
(1) (2) (3) (4) (5)

(1) Polyreset Product Designator
(2) Product Characteristics ex : SP, LS, LR, VS
(3) Hold Current (×0.01 Amp)
(4) Electrode Type
none : Standard
S : Split
L : Long
RU : Radial Untaped
(5) Packaging ex. B : Bulk

(4) Shape and Dimension

Fig.1	Fig.2	Fig.3
		

Unit : millimeters(inches)

Part number	A max.	B max.	C typ.	D min.	F max.	Fig
PR-LS-070-☐	22.1(0.870)	5.2(0.205)	1.2(0.047)	7.5(0.295)	4.1(0.161)	1
PR-SL-070S-☐	22.1(0.870)	5.2(0.205)	1.2(0.047)	7.5(0.295)	4.1(0.161)	2
PR-LS-100S-☐	23.1(0.909)	5.2(0.205)	1.0(0.039)	5.5(0.217)	4.1(0.161)	2
PR-LS-180-☐	26.0(1.024)	5.2(0.205)	1.0(0.039)	5.5(0.217)	4.1(0.161)	1
PR-LS-180L-☐	37.5(1.480)	5.6(0.220)	1.0(0.039)	10.0(0.400)	4.2(0.170)	1
PR-LS-180S-☐	26.0(1.024)	5.2(0.205)	1.0(0.039)	5.5(0.217)	4.1(0.161)	2
PR-LS-190-☐	23.4(0.921)	11.0(0.433)	1.1(0.043)	7.6(0.299)	5.4(0.213)	1
PR-LS-190RU-☐	20.8(0.819)	14.3(0.563)	0.76(0.030)	9.5(0.374)	4.1(0.161)	3
PR-LS-260-☐	26.0(1.024)	11.9(0.469)	1.0(0.039)	7.0(0.276)	6.1(0.240)	1
PR-LS-300-☐	31.8(1.252)	13.5(0.531)	1.1(0.043)	8.9(0.350)	6.6(0.260)	1
PR-LS-340-☐	26.0(1.024)	15.9(0.626)	1.0(0.039)	5.0(0.197)	6.1(0.240)	1

(5) Specifications

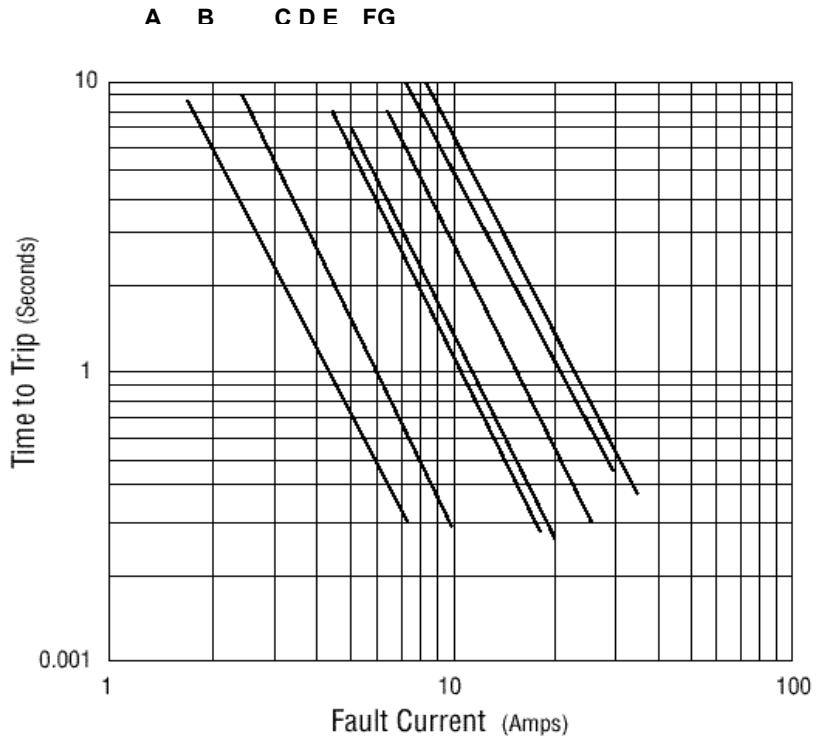
◈ *Electrical Characteristics*

Part number	V_{max} (V)	I_{max} (A)	I_H (A)	I_T (A)	Max.time to trip(s) @5×I_H	P_d (W)	Initial resistance		Post trip resistance
							Rmin (Ω)	Rmax (Ω)	R1 max (Ω)
PR-LS-070- ☐	15	100	0.7	1.5	5.0	1.0	0.100	0.200	0.340
PR-LS-070S-☐	15	100	0.7	1.5	5.0	1.0	0.100	0.200	0.340
PR-LS-100S-☐	24	100	1.0	2.5	7.0	1.5	0.070	0.130	0.260
PR-LS-180- ☐	24	100	1.8	3.8	2.9	2.0	0.040	0.068	0.120
PR-LS-180L-☐	24	100	1.8	3.8	2.9	2.0	0.040	0.068	0.120
PR-LS-180S-☐	24	100	1.8	3.8	2.9	2.0	0.040	0.068	0.120
PR-LS-190- ☐	24	100	1.9	4.2	3.0	1.9	0.030	0.057	0.100
PR-LS-190RU-☐	15	100	1.9	4.2	3.0	1.9	0.030	0.057	0.100
PR-LS-260- ☐	24	100	2.6	5.2	5.0	2.3	0.025	0.042	0.076
PR-LS-300- ☐	24	100	3.0	6.3	4.0	2.0	0.015	0.031	0.055
PR-LS-340- ☐	24	100	3.4	6.8	5.0	2.7	0.016	0.027	0.056

◈ *Hold current vs. Temperature*

Part number	Maximum ambient operating temperature (℃)								
	-40	-20	0	20	40	50	60	70	85
PR-LS-070-□	1.20	1.09	0.85	0.70	0.50	0.45	0.35	0.28	0.16
PR-LS-070S-□	1.20	1.09	0.85	0.70	0.50	0.45	0.35	0.28	0.16
PR-LS-100S-□	1.80	1.60	1.40	1.00	0.80	0.70	0.60	0.40	0.20
PR-LS-180-□	3.10	2.60	2.20	1.80	1.30	1.10	0.90	0.60	0.20
PR-LS-180L-□	3.10	2.60	2.20	1.80	1.30	1.10	0.90	0.60	0.20
PR-LS-180S-□	3.10	2.60	2.20	1.80	1.30	1.10	0.90	0.60	0.20
PR-LS-190-□	3.30	2.80	2.40	1.90	1.40	1.20	1.10	0.70	0.40
PR-LS-190RU-□	3.30	2.80	2.40	1.90	1.40	1.20	1.10	0.70	0.40
PR-LS-260-□	4.30	3.70	3.10	2.60	1.90	1.60	1.40	1.10	0.60
PR-LS-300-□	5.10	4.40	3.70	3.00	2.30	1.90	1.60	1.20	0.60
PR-LS-340-□	5.50	4.70	4.00	3.40	2.60	2.20	1.90	1.50	0.80

◈ *Typical time to trip at 20 ℃ (PR-LS series)*



A : PR-LS-070
PR-LS-070S
B : PR-LS-100S
C : PR-LS-180
PR-LS-180L
PR-LS-180S
D : PR-LS-190
PR-LS-190RU
E : PR-LS-260
F : PR-LS-300
G : PR-LS-340

(6) Environmental Characteristics

ITEM	REQUIREMENT	TEST CONDITION
Operating/Storage Temperature		-40℃ to +85℃
Maximum Device Surface Temperature in Tripped state		125℃
Passive Aging	±10% typical resistance change	+85℃, 1000 hours
Humidity Aging	±5% typical resistance change	+85℃, 85% R.H. 7days
Vibration	No change	MIL-STD-883C, Condition A

(7) Test Procedures And Requirement

ITEM	REQUIREMENT	TEST CONDITION
Visual/Mech.	Per physical description	Verify dimensions and materials
Resistance	Rmin ≤ R ≤Rmax	In still air @23℃
Time to Trip	T ≤ max. time to trip(seconds)	At specified current, Vmax, 23℃
Hold Current	No Trip	30mim. at Ihold
Trip Cycle Test	No arching or burning	Vmax, Imax, 100 cycles
Trip Endurance	No arching or burning	Vmax, 48hours

(8) Physical Characteristics

Lead Material	Quarter-hard nickel
Insulating Material	Polyester tape

(9) Terms and Description

1. **Hold current (I_H)** : maximum current at which the device will not trip at 20℃
2. **Trip current (I_T)** : minimum current at which the device will always trip at 20℃ ($2\times I_H$)
3. **Typical power dissipation (P_d)** :typical amount of power dissipation by the device when in tripped state in 20℃ still air environment
4. R_{min} : Minimum device resistance at 20℃ prior to tripping
5. R_{max} : Maximum device resistance at 20℃ prior to tripping
6. $R_{1\ max}$: Maximum device resistance at 20℃ measured 1 hour post trip

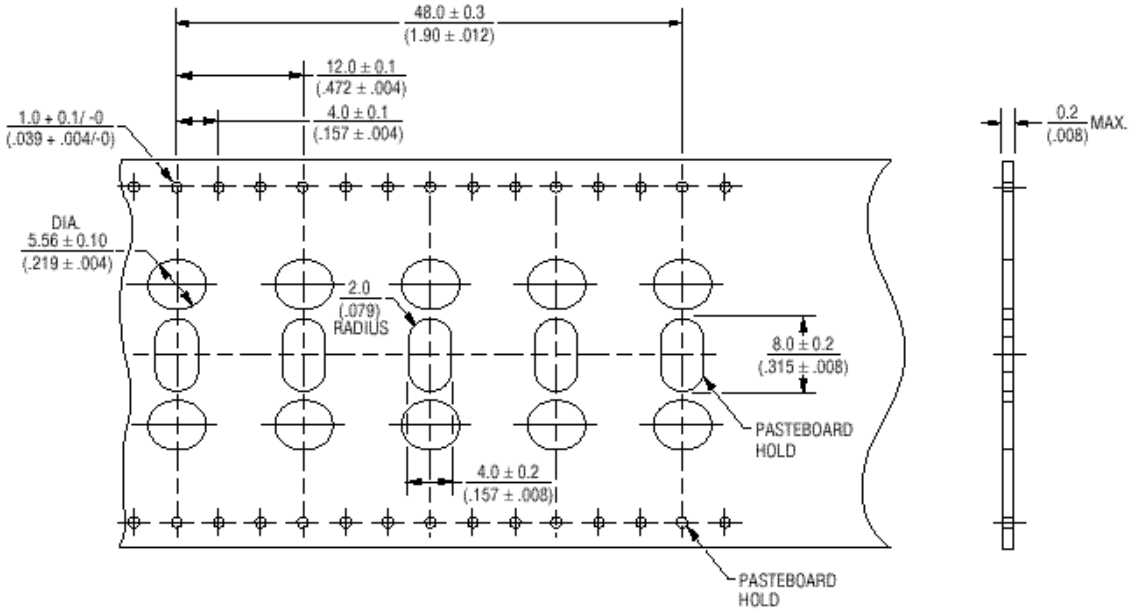
(10) Packaging Information

(1) Bulk : 500pcs per bag

(2) Tape and Reel : Consult factory

(11) Tape and Reel Specification

Taped Component Dimensions



Reel Dimensions