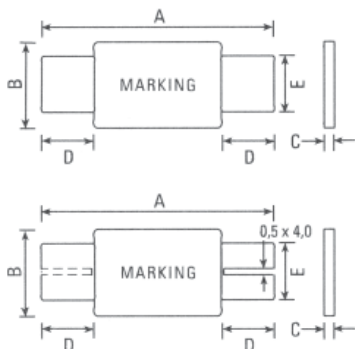


## LTD



Dimensions (mm)



S: one slot  
SS: two slots

## Strap Type, 15 V / 24 V

## Standard

UL 1434 1<sup>st</sup> Edition  
CSA C22.2 No. 0 CSA TIL No. CA-3A

## Approvals

cULus Recognition  
TÜV

## Features

This product line similar to the STD family is designed to provide overcurrent protection for rechargeable batteries at elevated temperatures. These devices offer hold currents from 0.7 A to 4.3 A and voltages from 15 V to 24 V.

## Specifications

## Packaging

A small pack  
D standard

## Materials

Insulating material: Polyester Tape  
Terminals: Nickel

## Max. Device Surface Temperature in Tripped State

120 °C

## Operating / Storage Temperature

-40 °C to +85 °C (consider derating)

## Humidity Ageing

+85 °C, 85 % R.H., 7 days, ± 5 % typical resistance change

## Vibration

MIL-LTD-883C, Condition A, no change

## Marking

"P", Part Code, identification, lot number



Dimensions (mm)

| Model    | Fig | A    |      | B    |      | C   |     | D   | E   |     | packaging quantity |          |
|----------|-----|------|------|------|------|-----|-----|-----|-----|-----|--------------------|----------|
|          |     | Min  | Max  | Min  | Max  | Min | Max |     | Min | Max | small pack         | standard |
| LTD070   | 1   | 19.9 | 22.1 | 4.9  | 5.2  | 0.7 | 1.2 | 5.5 | 3.9 | 4.1 | 500                | 10,000   |
| LTD070S  | 2   | 19.9 | 22.1 | 4.9  | 5.2  | 0.7 | 1.2 | 5.5 | 3.9 | 4.1 | 500                | 10,000   |
| LTD100   | 1   | 20.9 | 23.1 | 4.9  | 5.2  | 0.6 | 1.0 | 4.1 | 3.9 | 4.1 | 500                | 10,000   |
| LTD100S  | 2   | 20.9 | 23.1 | 4.9  | 5.2  | 0.6 | 1.0 | 4.1 | 3.9 | 4.1 | 500                | 10,000   |
| LTD100SS | 3   | 20.9 | 23.1 | 4.9  | 5.2  | 0.6 | 1.0 | 4.1 | 3.9 | 4.1 | 500                | 10,000   |
| LTD180   | 1   | 24.0 | 26.0 | 4.9  | 5.2  | 0.6 | 1.0 | 4.1 | 3.9 | 4.1 | 500                | 10,000   |
| LTD180S  | 2   | 24.0 | 26.0 | 4.9  | 5.2  | 0.6 | 1.0 | 4.1 | 3.9 | 4.1 | 500                | 10,000   |
| LTD180SS | 3   | 24.0 | 26.0 | 4.9  | 5.2  | 0.6 | 1.0 | 4.1 | 3.9 | 4.1 | 500                | 10,000   |
| LTD190   | 1   | 21.3 | 23.4 | 10.2 | 11.0 | 0.5 | 1.0 | 5.0 | 4.8 | 5.4 | 500                | 10,000   |
| LTD260   | 1   | 24.0 | 26.0 | 10.8 | 11.9 | 0.6 | 1.0 | 5.0 | 5.9 | 6.1 | 500                | 10,000   |
| LTD300   | 1   | 28.4 | 31.8 | 13.0 | 13.5 | 0.5 | 1.1 | 6.3 | 6.0 | 6.6 | 500                | 10,000   |
| LTD310   | 1   | 24.0 | 26.0 | 14.8 | 15.9 | 0.6 | 1.0 | 5.0 | 5.9 | 6.1 | 500                | 10,000   |
| LTD340   | 1   | 24.0 | 26.0 | 14.8 | 15.9 | 0.6 | 1.0 | 5.0 | 5.9 | 6.1 | 500                | 10,000   |

Permissible continuous operating current is ≤ 100 % at ambient temperature of 20 °C (68 °F).

| Model    | $I_{hold}$<br>(mA/A) | $I_{Trip}$<br>(A) | $V_{max, dc}$<br>(V) | $I_{max}$<br>(A) | max. time to trip<br>(s @ A) | $P_{d max.}$<br>(W) | Resistance   |              |                | Approvals |     |
|----------|----------------------|-------------------|----------------------|------------------|------------------------------|---------------------|--------------|--------------|----------------|-----------|-----|
|          |                      |                   |                      |                  |                              |                     | $R_{min.}()$ | $R_{max.}()$ | $R_{I max.}()$ | cULus     | TÜV |
| LTD070   | 700                  | 1.50              | 15                   | 100              | 5.0 @ 3.5                    | 1.00                | 0.100        | 0.200        | 0.340          | •         | •   |
| LTD070S  | 700                  | 1.50              | 15                   | 100              | 5.0 @ 3.5                    | 1.00                | 0.100        | 0.200        | 0.340          | •         | •   |
| LTD100   | 1.00                 | 2.50              | 24                   | 100              | 7.0 @ 5.0                    | 1.50                | 0.070        | 0.130        | 0.260          | •         | •   |
| LTD100S  | 1.00                 | 2.50              | 24                   | 100              | 7.0 @ 5.0                    | 1.50                | 0.070        | 0.130        | 0.260          | •         | •   |
| LTD100SS | 1.00                 | 2.50              | 24                   | 100              | 7.0 @ 5.0                    | 1.50                | 0.070        | 0.130        | 0.260          | •         | •   |
| LTD180   | 1.80                 | 3.80              | 24                   | 100              | 2.9 @ 9.0                    | 2.00                | 0.040        | 0.068        | 0.120          | •         | •   |
| LTD180S  | 1.80                 | 3.80              | 24                   | 100              | 2.9 @ 9.0                    | 2.00                | 0.040        | 0.068        | 0.120          | •         | •   |
| LTD180SS | 1.80                 | 3.80              | 24                   | 100              | 2.9 @ 9.0                    | 2.00                | 0.040        | 0.068        | 0.120          | •         | •   |
| LTD190   | 1.90                 | 4.20              | 24                   | 100              | 3.0 @ 10.0                   | 1.90                | 0.030        | 0.057        | 0.100          | •         | •   |
| LTD260   | 2.60                 | 5.20              | 24                   | 100              | 5.0 @ 13.0                   | 2.30                | 0.025        | 0.042        | 0.076          | •         | •   |
| LTD300   | 3.00                 | 6.30              | 24                   | 100              | 4.0 @ 15.0                   | 2.00                | 0.015        | 0.031        | 0.055          | •         | •   |
| LTD310   | 3.10                 | 6.00              | 24                   | 100              | 5.0 @ 16.0                   | 2.50                | 0.018        | 0.030        | 0.055          | •         | •   |
| LTD340   | 3.40                 | 6.80              | 24                   | 100              | 5.0 @ 17.0                   | 2.70                | 0.016        | 0.027        | 0.050          | •         | •   |

## NOTE:

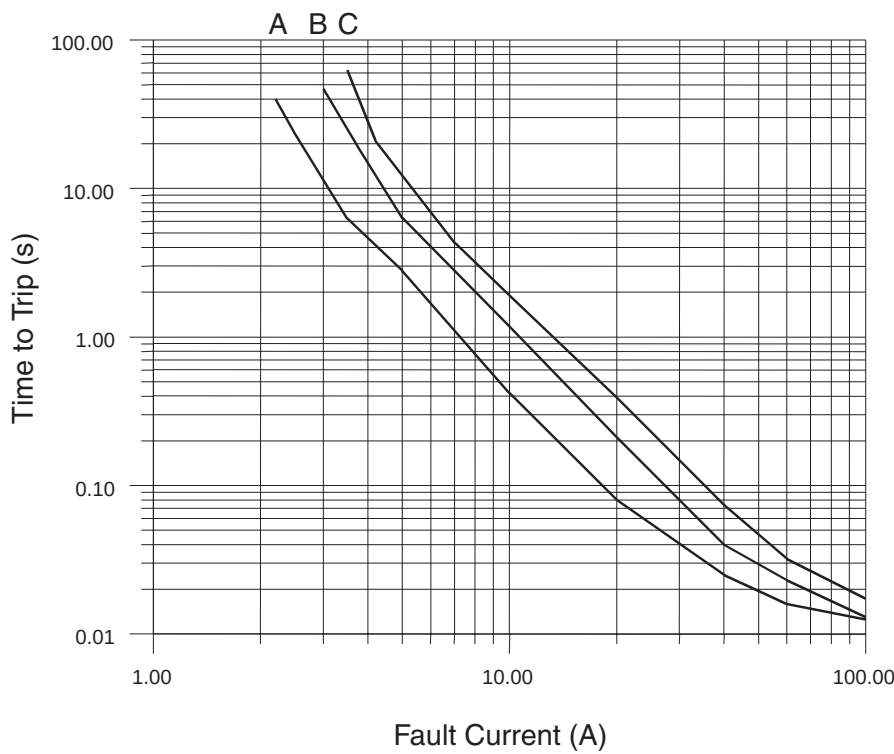
$I_{hold}$  = Hold current: maximum current device will pass without tripping in 20 °C still air.  
 $I_{Trip}$  = Trip current: minimum current at which the device will trip in 20 °C still air.  
 $V_{max}$  = Maximum voltage device can withstand without damage at rated current ( $I_{max}$ )  
 $I_{max}$  = Maximum fault current device can withstand without damage at rated voltage ( $V_{max}$ )

$P_d$  = Power dissipated from device when in the tripped state at 20 °C still air.  
 $R_{min}$  = Minimum resistance of device in initial (un-soldered) state.  
 $R_{I max}$  = Maximum resistance of device at 20 °C measured one hour after tripping for 20 s.  
**Caution:** Operation beyond the specified rating may result in damage and possible arcing and flame.  
 Specifications are subject to change without notice

Order  
Information

| Qty. | Order-<br>Number | Model | Packaging |
|------|------------------|-------|-----------|
|      |                  |       |           |

LTD



Thermal Derating Chart

| Model    | Ambient Operation Temperature - $I_{hold}$ (A) |        |      |       |       |       |       |       |       |
|----------|------------------------------------------------|--------|------|-------|-------|-------|-------|-------|-------|
|          | -40 °C                                         | -20 °C | 0 °C | 23 °C | 40 °C | 50 °C | 60 °C | 70 °C | 85 °C |
| LTD070   | 1.20                                           | 1.09   | 0.85 | 0.70  | 0.50  | 0.45  | 0.35  | 0.28  | 0.16  |
| LTD070S  | 1.20                                           | 1.09   | 0.85 | 0.70  | 0.50  | 0.45  | 0.35  | 0.28  | 0.16  |
| LTD100   | 1.86                                           | 1.60   | 1.40 | 1.00  | 0.83  | 0.70  | 0.60  | 0.44  | 0.23  |
| LTD100S  | 1.86                                           | 1.60   | 1.40 | 1.00  | 0.83  | 0.70  | 0.60  | 0.44  | 0.23  |
| LTD100SS | 1.86                                           | 1.60   | 1.40 | 1.00  | 0.83  | 0.70  | 0.60  | 0.44  | 0.23  |
| LTD180   | 3.13                                           | 2.68   | 2.20 | 1.80  | 1.33  | 1.10  | 0.90  | 0.65  | 0.36  |
| LTD180S  | 3.13                                           | 2.68   | 2.20 | 1.80  | 1.33  | 1.10  | 0.90  | 0.65  | 0.36  |
| LTD180SS | 3.13                                           | 2.68   | 2.20 | 1.80  | 1.33  | 1.10  | 0.90  | 0.65  | 0.36  |
| LTD190   | 3.32                                           | 2.86   | 2.40 | 1.90  | 1.48  | 1.25  | 1.10  | 0.79  | 0.43  |
| LTD260   | 4.30                                           | 3.72   | 3.10 | 2.60  | 1.98  | 1.69  | 1.40  | 1.11  | 0.60  |
| LTD300   | 5.10                                           | 4.40   | 3.70 | 3.00  | 2.30  | 1.95  | 1.60  | 1.25  | 0.69  |
| LTD310   | 5.36                                           | 4.58   | 3.70 | 3.10  | 2.36  | 2.01  | 1.70  | 1.30  | 0.71  |
| LTD340   | 5.52                                           | 4.79   | 4.00 | 3.40  | 2.60  | 2.24  | 1.90  | 1.51  | 0.78  |