

Features

- ☐ Lower power consumption by lower resistance
- ☐ The miniaturized PTC elements leads a flexible design around battery
- ☐ Typical used for protection of Li-ion /Polymer Li-ion battery
- ☐ Lead-free
- ☐ Halogen free
- ☐ Agency recognition: UL、CSA、TUV



LTH series

Product Dimensions (mm)

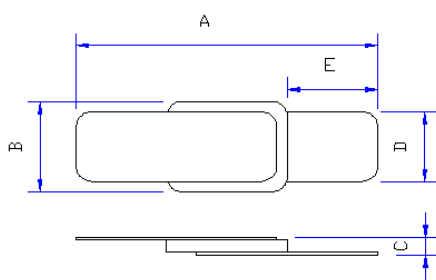


Fig. 1 Bared

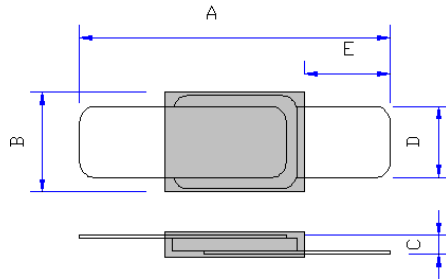


Fig. 2 Tape

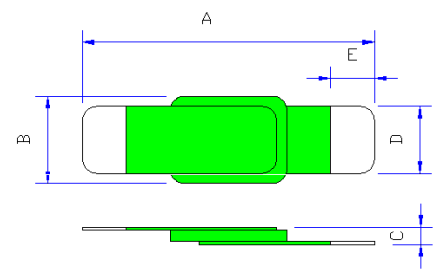


Fig. 3 Coating

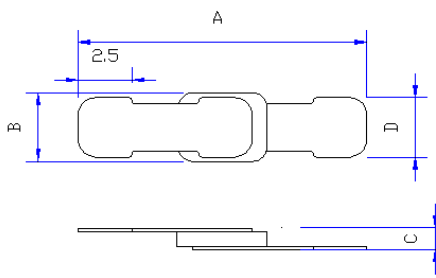


Fig. 4 Bared

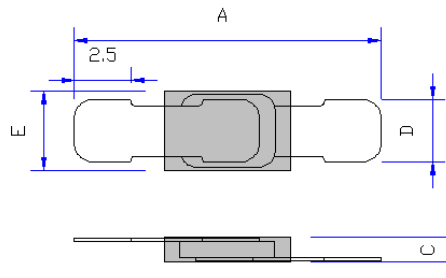


Fig. 5 Tape

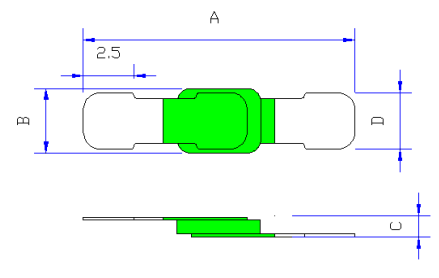


Fig. 6 Coating

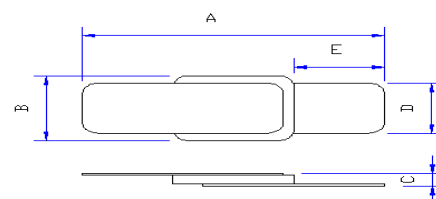


Fig. 7 Bared

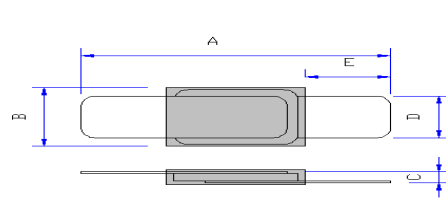


Fig. 8 Tape

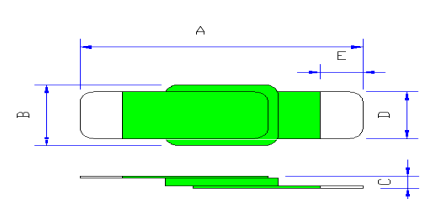


Fig. 9 Coating

PART NUMBER	A		B		C		D		E	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
LTH 250	13.6	15.6	2.96	3.26	0.6	1.0	2.2	2.4	3.5	--
LTH 300	13.6	15.6	2.96	3.26	0.6	1.0	2.2	2.4	3.5	--
LTH 350	13.6	15.6	2.96	3.26	0.6	1.0	2.2	2.4	3.5	--
LTH 400	13.6	15.6	2.96	3.26	0.6	1.0	2.2	2.4	3.5	--
LTH 420	12.5	13.3	3.25	3.55	0.6	1.0	2.7	2.9	--	--
LTH 450	12.5	13.3	3.25	3.55	0.6	1.0	2.7	2.9	--	--
LTH 500	12.5	13.3	3.25	3.55	0.6	1.0	2.7	2.9	--	--
LTH 550	20.0	21.0	3.30	3.70	0.6	1.0	2.4	2.6	5.5	--
LTH 600	20.0	21.0	3.30	3.70	0.6	1.0	2.4	2.6	5.5	--
LTH 650	24.0	26.0	3.50	3.90	0.6	1.0	2.4	2.6	3.5	--
LTH 700	24.0	26.0	3.50	3.90	0.6	1.0	2.4	2.6	3.5	--
LTH 800	24.0	26.0	7.15	7.55	0.6	1.0	2.4	2.6	3.5	--
LTH 900	24.0	26.0	7.15	7.55	0.6	1.0	2.4	2.6	3.5	--
LTH 1000	35.0	37.0	7.15	7.55	0.6	1.0	2.4	2.6	4.5	--

Thermal Derating Chart-IH(A)

Part number	Maximum ambient operating temperatures(℃)							
	-40	-20	0	25	40	50	60	70
LTH 250	4.40	3.90	3.30	2.50	2.25	2.10	2.00	1.75
LTH 300	5.20	4.50	3.85	3.00	2.85	2.70	2.50	2.20
LTH 350	5.70	5.20	4.50	3.50	3.20	3.00	2.80	2.50
LTH 400	6.00	5.40	4.80	4.00	3.60	3.30	3.00	2.70
LTH 420	6.10	5.50	4.90	4.20	3.75	3.45	3.15	2.80
LTH 450	6.40	5.70	5.05	4.50	4.05	3.70	3.40	3.05
LTH 500	6.95	6.20	5.60	5.00	4.50	4.10	3.80	3.40
LTH 550	7.60	6.80	6.15	5.50	4.95	4.50	4.25	3.85
LTH 600	8.25	7.40	6.65	6.00	5.40	5.00	4.70	4.30
LTH 650	8.90	8.05	7.20	6.50	5.80	5.45	5.10	4.70
LTH 700	9.60	8.70	7.70	7.00	6.20	5.80	5.40	5.05
LTH 800	10402222	9.80	8.80	8.00	7.00	6.60	6.20	5.80
LTH 900	12.10	11.00	9.95	9.00	7.95	7.40	6.90	6.40
LTH 1000	13.15	12.00	11.00	10.00	8.90	8.40	7.65	7.10

Electrical Characteristics

Part number	I _H (A)	I _T (A)	V _{max} (V)	P _{d max} (W)	I _{max} (A)	Max Time to Trip		Initial Resistance		R _{1max} (m Ω)
						Current (A)	Time (S)	R _{min} (m Ω)	R _{max} (m Ω)	
LTH 250	2.5	6.0	10	1.0	50	12.5	5	6	14	28
LTH 300	3.0	7.2	10	1.3	50	15.0	5	6	13	26
LTH 350	3.5	8.4	10	1.3	50	17.5	5	5	13	26
LTH 400	4.0	9.6	10	1.5	50	20.0	5	5	12	24
LTH 420	4.2	8.8	10	1.5	50	21.0	5	5	12	24
LTH 450	4.5	10.8	10	1.5	50	22.5	5	4	12	24
LTH 500	5.0	12.0	10	1.8	50	25.0	5	4	11	22
LTH 550	5.5	13.2	10	2.0	50	27.5	5	3	11	22
LTH 600	6.0	14.4	10	2.0	50	30.0	5	2	10	20
LTH 650	6.5	15.6	10	2.0	50	32.5	5	1	9	20
LTH 700	7.0	16.8	10	2.0	50	35.0	5	1	8	18
LTH 800	8.0	19.2	10	2.2	50	40.0	5	1	7	18
LTH 900	9.0	21.6	10	2.5	50	45.0	5	1	6	16
LTH 1000	10.0	24.0	10	2.5	50	50.0	5	1	6	16

I_H=Hold current: maximum current at which the device will not trip at 25°C still air.

I_T=Trip current: minimum current at which the device will always trip at 25°C still air.

V_{max}=Maximum voltage device can withstand without damage at rated current.

I_{max}=Maximum fault current device can withstand without damage at rated voltage.

Max Time-to-trip=Maximum time to trip(s) at assigned current.

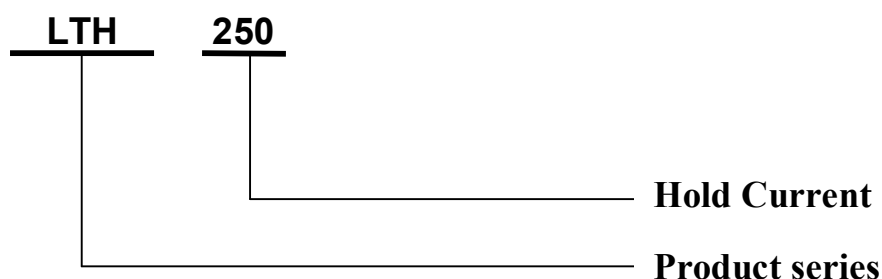
P_{d max}=Maximum power dissipation: maximum power dissipated by the device when in state air environment.

R_{min}=Minimum device resistance at 25°C prior to tripping.

R_{max}=Maximum device resistance at 25°C prior to tripping.

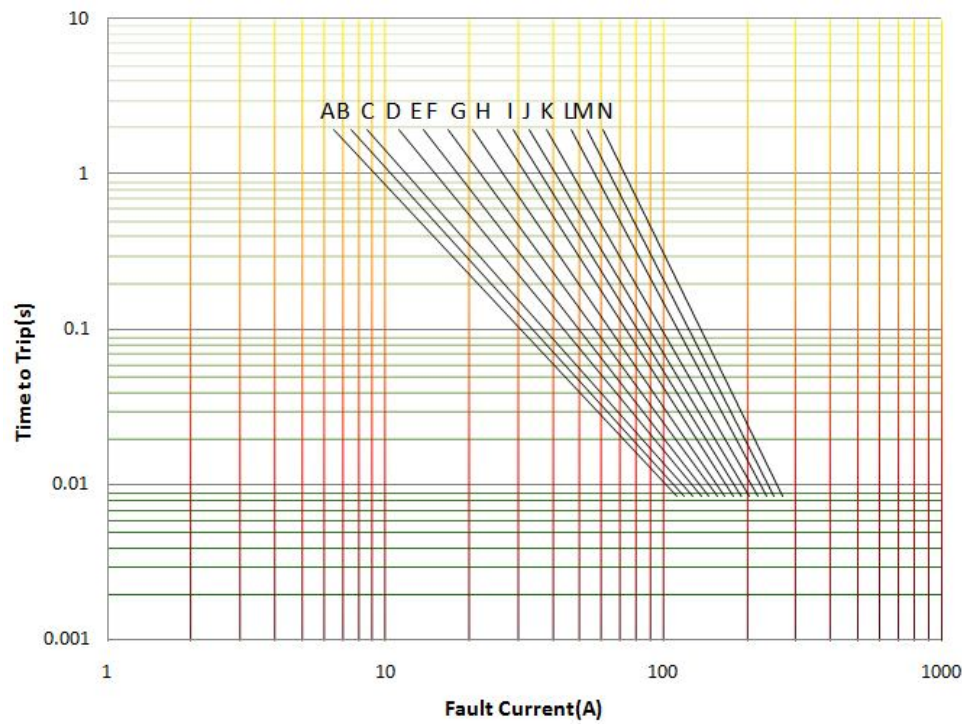
R_{1max}=Maximum device resistance at 25°C, of device one hour after being tripped the first time.

Part Numbering System



Typical Time-to-Trip Charts at 25°C

- A= LTH250
- B= LTH300
- C= LTH350
- D= LTH400
- E= LTH420
- F= LTH450
- G= LTH500
- H= LTH550
- I= LTH600
- J= LTH650
- K= LTH700
- L= LTH800
- M= LTH900
- N= LTH1000



Physical Characteristics

Lead material	0.10mm nominal thickness, 1/2 H nickel
Coating	Epoxy Resin
Tape	Polyester

Environmental Specifications

Test	Conditions	Resistance Change
Passive aging	-40°C, 1000hours	≤ R _{1max}
	85°C, 1000hours	≤ R _{1max}
Humidity aging	60°C/95% RH, 1000hours	≤ R _{1max}
Vibration	MIL-STD-883D ,Method 2026	No change

Packaging and Storage

Packaging

- LTH250~600 Bulk, 1000pcs per bag
- LTH250~600 Bulk, 500pcs per bag

Storage

The maximum ambient temperature shall not exceed 40℃. Storage temperatures higher than 40℃ could result in the deformation of packaging materials. The maximum relative humidity recommended for storage is 70%. High humidity with high temperature can accelerate the oxidation of the solder plating on the termination and reduce the solderability of the components. Sealed plastic bags with desiccant shall be used to reduce the oxidation of the termination and shall only be opened prior to use. The products shall not be stored in areas where harmful gases containing sulfur or chlorine are present.

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