

Features

- ✧ Radial leaded devices
- ✧ High switching temperature
- ✧ Provides maximum working temperature with 125°C
- ✧ Faster tripping, typical application in micro-motors for automobiles
- ✧ Protecting against overcurrent and overtemperature faults
- ✧ Agency Recognition:UL、CSA、TUV is pending

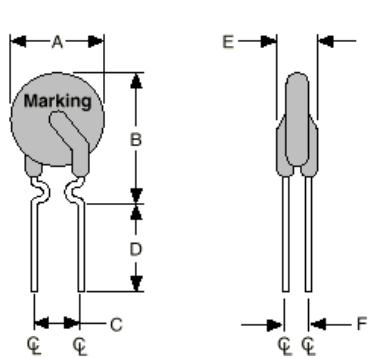


Applications:

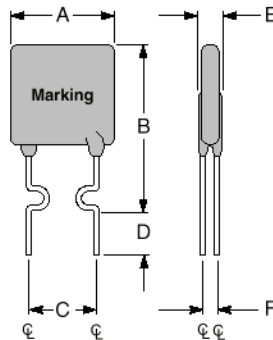
- Window lift motors
- Fuel door actuators
- Sunroof motors
- Door lock actuators
- Lumbar support motors
- Convertible top actuators
- Trunk actuators
- Seat motors
- Wire protection

Product Dimensions in Millimeters

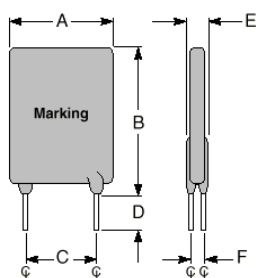
Part number	A	B	C	D	E	F	Lead	Style
	Max.	Max.	Typ.	Min.	Max.	Typ.	Size(ϕ)	
LPH050	7.5	12.5	5.1	7.6	3.0	0.9	0.5	1
LPH070	6.5	12.8	5.1	7.6	3.0	0.9	0.5	2
LPH100	9.6	13.5	5.1	7.6	3.0	0.9	0.5	1
LPH200	9.5	14.8	5.1	7.6	3.0	0.9	0.5	1
LPH400	11.0	18.1	5.1	7.6	3.0	0.9	0.5	3
LPH450	10.2	15.5	5.1	7.6	3.0	1.2	0.8	3
LPH600	11.1	20.9	5.1	7.6	3.0	1.2	0.8	3
LPH650	12.5	22.1	5.1	7.6	3.0	1.2	0.8	3
LPH750	14.0	23.6	5.1	7.6	3.0	1.2	0.8	3
LPH900	16.6	25.5	5.1	7.6	3.0	1.2	0.8	3
LPH1000	17.6	26.3	5.1	7.6	3.0	1.2	0.8	3
LPH1300	23.6	28.5	5.1	7.6	3.0	1.4	1.0	3
LPH1500	23.6	28.5	5.1	7.6	3.0	1.4	1.0	3



Style 1



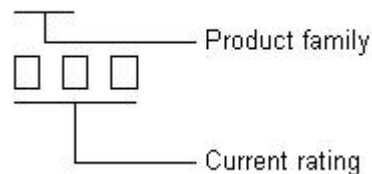
Style 2



Style 3

Marking system

LPH



* Lead materials: Tin-plate metal wire.

* the right logo is lead-free mark of wayon.



Electrical Characteristic

Part number	I_H (A)	I_T (A)	T_{trip} (S)	V_{max} (V)	I_{max} (A)	Pd_{typ} (W)	R_{min} (Ω)	R_{1max} (Ω)
LPH050	0.50	0.9	2.5	30	40	0.9	0.48	1.10
LPH070	0.70	1.40	4.0	30	40	1.4	0.30	0.54
LPH100	1.0	1.8	5.2	30	40	1.4	0.18	0.43
LPH200	2.0	3.8	3.0	16	100	1.4	0.045	0.11
LPH400	4.0	7.0	8.0	16	100	2.0	0.018	0.044
LPH450	4.5	8.7	4.0	16	100	3.6	0.017	0.054
LPH600	6.0	12.0	6.5	16	100	4.1	0.010	0.032
LPH650	6.5	13.7	7.0	16	100	4.3	0.009	0.026
LPH750	7.5	14.8	8.0	16	100	4.5	0.0074	0.022
LPH900	9.0	16.5	10.0	16	100	5.0	0.0070	0.017
LPH1000	10.0	20.5	10.5	16	100	5.3	0.0050	0.015
LPH1300	13.0	27.0	15.0	16	100	6.9	0.0033	0.010
LPH1500	15.0	28.0	20.0	16	100	7.0	0.003	0.009

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.

T_{trip} =Maximum time to trip(s) at assigned current.

$P_{d_{typ}}$ =Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

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

R_{1max} =Maximum device resistance measured in the nontripped state 1 hour post reflow.

Test Procedures And Requirements

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25°C	$R_{min} \leq R \leq R_{max}$
Time to Trip	Specified current, V_{max} , 25°C	$T \leq$ maximum Time to Trip
Hold Current	30min, at I_H	No trip
Trip Cycle Life	V_{max} , I_{max} , 100cycles	No arcing or burning
Trip Endurance	V_{max} , 24hours	No arcing or burning

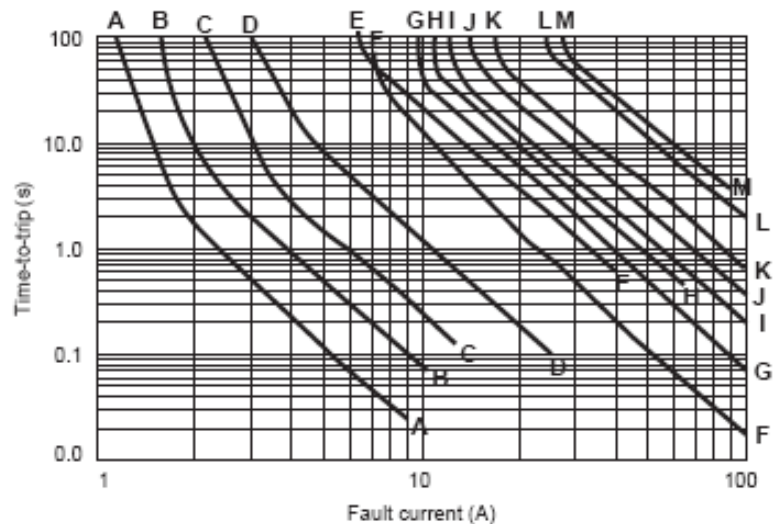
Thermal Derating Chart- I_H (A)

Part number	Maximum ambient operating temperatures(°C)									
	-40	-20	0	25	40	50	60	70	85	125
LPH050	0.68	0.62	0.56	0.50	0.44	0.40	0.36	0.34	0.28	0.12
LPH070	0.95	0.87	0.79	0.70	0.62	0.56	0.51	0.47	0.39	0.17
LPH100	1.36	1.24	1.13	1.00	0.89	0.80	0.73	0.67	0.56	0.24
LPH200	2.71	2.49	2.26	2.00	1.77	1.60	1.46	1.34	1.11	0.49
LPH400	5.4	5.0	4.6	4.0	3.5	3.2	3.0	2.6	2.2	0.98
LPH450	6.1	5.6	5.1	4.5	4.0	3.6	3.3	3.0	2.5	1.1
LPH600	8.2	7.5	6.8	6.0	5.3	4.9	4.4	4.0	3.3	1.5
LPH650	8.8	8.1	7.4	6.5	5.7	5.3	4.8	4.3	3.6	1.6
LPH750	10.2	9.4	8.6	7.5	6.6	6.1	5.6	5.0	4.1	1.9
LPH900	12.21	11.19	10.16	9.00	7.97	7.20	6.56	6.04	5.01	2.19
LPH1000	13.6	12.5	11.4	10.0	8.8	8.1	7.4	6.6	5.5	2.5
LPH1300	17.7	16.3	14.8	13.0	11.4	10.5	9.6	8.6	7.2	3.3
LPH1500	20.4	18.8	17.1	15.0	13.2	12.1	11.1	9.9	8.3	3.8

Typical Time-to-trip Curves at 25°C

LPHSeries

- A=LPH050
- B=LPH070
- C=LPH100
- D=LPH200
- E=LPH400
- F=LPH450
- G=LPH600
- H=LPH650
- I=LPH750
- J=LPH900
- K=LPH1000
- L=LPH1300



Packaging and Marking Information

Bulk:

LPH050~LPH450.....1000pcs per bag

LPH600~LPH1500.....500pcs per bag

Tape & Reel:

LPH050~LPH200.....3000pcs per reel

Storage

The maximum ambient temperature shall not exceed 40°C. Storage temperatures higher than 40°C 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.



WARNING:

- Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- The devices are intended for protection against occasional overcurrent or overtemperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal and mechanical procedures for electronic components.
- Operation in circuit with a large inductance can generate a circuit voltage ($L di/dt$) above the rated voltage of the PolySwitch resettable device.