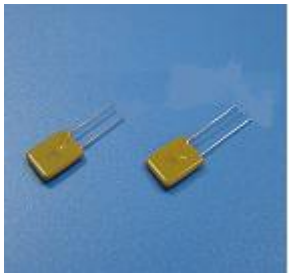
Polymer PTC Devices



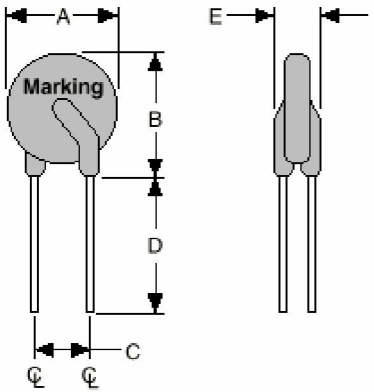
Features

- ☐ Radial leaded devices
- ☐ Designed for use in line voltage applications, permitting maximum voltages of up to 265 VAC
- ☐ UL94 V-0 insulating material
- ☐ Recognition: UL, CSA, TUV
- ☐ Lead-free and compliant with the European Union RoHS Directive 2011/65/EU

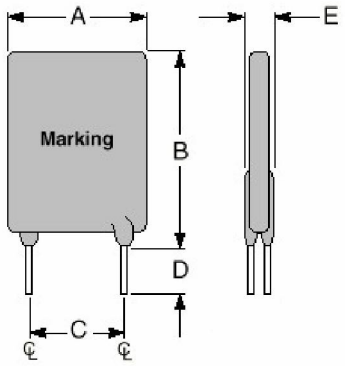
LBLV *series*

Product Dimensions

Part number	A	B	C		D	E	Lead	
	Max	Max	Min	Max	Min	Max	Style	Size(ϕ)
LB050LVF	8.3	10.7	4.4	5.8	7.6	3.8	1	0.6
LB080LVF	8.3	10.7	4.4	5.8	7.6	3.8	1	0.6
LB120LVF	8.3	10.7	4.4	5.8	7.6	3.8	1	0.6
LB160LVF	9.0	12.5	4.4	5.8	7.6	3.8	1	0.6
LB250LVF	9.6	17.4	4.4	5.8	7.6	3.8	2	0.6
LB330LVF	11.5	19.5	4.4	5.8	7.6	3.8	2	0.6
LB400LVF	11.5	19.5	4.4	5.8	7.6	3.8	2	0.6
LB550LVF	11.5	19.5	4.4	5.8	7.6	3.8	2	0.6
LB600LVF	12.5	22.5	4.4	5.8	7.6	3.8	2	0.6
LB750LVF	12.5	22.5	4.4	5.8	7.6	3.8	2	0.6
LB800LVF	15.5	22.5	4.4	5.8	7.6	3.8	2	0.6
LB1000LVF	18.7	24.4	9.5	10.9	7.6	3.8	1	0.8
LB1250LVF	22.0	27.4	9.5	10.9	7.6	3.8	1	0.8
LB2000LVF	24.9	33.8	9.5	10.9	7.6	3.8	2	0.8



Style1



Style2

Marking system

LB
□□□ LV

Product family

Current rating

* Lead materials: Tin-plate metal wire.

CYG Wayon Circuit protection Co., Ltd. Tel: 86-21-50968308 Fax: 86-21-50968310
No. 1001, Shiwan 7th Road, Shanghai, 201207, China E-mail: market@way-on.com http://www.way-on.com

Electrical Characteristics

Part number	I_H (A)	I_T (A)	T_{trip} (A)	T_{trip} (S)	V_{max} (V)	I_{max} (A)	R_{min} (Ω)	R_{max} (Ω)	R_{1max} (Ω)
LB050LVF	0.05	0.12	0.25	15.0	265	1.0	18.50	31.00	65.00
LB080LVF	0.08	0.19	0.40	15.0	265	1.2	7.40	12.00	26.00
LB120LVF	0.12	0.30	0.60	15.0	265	1.2	3.00	6.50	12.00
LB160LVF	0.16	0.37	0.80	15.0	265	2.0	2.50	4.10	7.80
LB250LVF	0.25	0.56	1.25	18.5	265	3.5	1.30	2.10	3.80
LB330LVF	0.33	0.80	1.65	21.0	265	4.5	0.77	1.24	2.60
LB400LVF	0.40	0.90	2.00	26.0	265	5.5	0.60	0.97	1.90
LB550LVF	0.55	1.25	2.75	26.0	265	7.0	0.45	0.73	1.45
LB600LVF	0.60	1.35	3.00	36.0	265	5.5	0.40	0.70	1.42
LB750LVF	0.75	1.50	3.75	18.0	265	7.5	0.32	0.48	0.84
LB800LVF	0.80	1.80	4.00	40.0	265	10.0	0.30	0.70	1.32
LB1000LVF	1.00	2.00	5.00	21.0	265	10.0	0.22	0.33	0.58
LB1250LVF	1.25	2.50	6.25	23.0	265	12.5	0.17	0.25	0.44
LB2000LVF	2.00	4.00	10.00	28.0	265	20.0	0.09	0.13	0.22

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

I_T=Trip current: minimum current at which the device will always trip at 25℃ 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.

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

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

R_{1max}= Maximum resistance of device when measured one hour post trip at 25℃.

Thermal Derating Chart-$I_{H(A)}$

Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LB050LVF	0.080	0.075	0.062	0.050	0.040	0.035	0.030	0.025	0.017
LB080LVF	0.128	0.120	0.100	0.080	0.064	0.056	0.048	0.040	0.028
LB120LVF	0.192	0.180	0.150	0.120	0.096	0.084	0.072	0.060	0.042
LB160LVF	0.256	0.240	0.200	0.160	0.128	0.112	0.096	0.080	0.056
LB250LVF	0.400	0.375	0.315	0.250	0.200	0.175	0.150	0.125	0.087
LB330LVF	0.630	0.500	0.420	0.330	0.270	0.230	0.200	0.170	0.110
LB400LVF	0.640	0.600	0.500	0.400	0.320	0.280	0.240	0.200	0.210
LB550LVF	0.930	0.820	0.690	0.550	0.470	0.410	0.360	0.300	0.230
LB600LVF	0.960	0.900	0.750	0.600	0.480	0.420	0.360	0.300	0.230
LB750LVF	1.280	1.200	0.990	0.750	0.640	0.560	0.480	0.400	0.280
LB800LVF	1.450	1.240	1.000	0.800	0.650	0.580	0.520	0.450	0.380
LB1000LVF	1.600	1.420	1.230	1.000	0.780	0.690	0.610	0.540	0.420
LB1250LVF	2.030	1.810	1.580	1.250	1.080	0.980	0.860	0.750	0.630
LB2000LVF	2.760	2.540	2.320	2.000	1.710	1.600	1.490	1.390	1.250

Test Procedures And Requirements

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25℃	$R_{min} \leqslant R \leqslant R_{max}$
Time to Trip	Specified current, V_{max}, 25℃	T≤maximum Time to Trip
Hold Current	30min, at I_H	No trip
Trip Cycle Life	V_{max}, I_{max}, 20cycles	No arcing or burning
Trip Endurance	V_{max}, 1hours	No arcing or burning

Typical Time–to-Trip Charts at 25℃

A=LB050LVF H=LB550LVF

B=LB080LVF I=LB600LVF

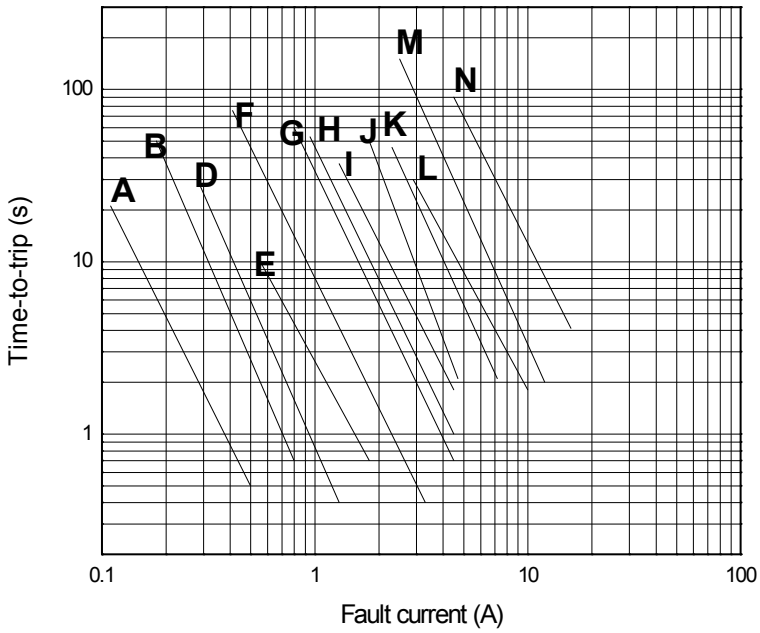
C=LB120LVF J=LB750LVF

D=LB160LVF K=LB800LVF

E=LB250LVF L=LB1000LVF

F=LB330LVF M=LB1250LVF

G=LB400LVF N=LB2000LVF



Package Information

Bulk:
LB050LVF~LB160LVF……..1000pcs per bag
LB250LVF~LB800LVF…….....500pcs per bag
LB1000LVF~LB1250LVF……..250pcs per bag
LB2000LVF…….....200pcs per bag
Tape & Reel:
LB050LVF~LB400LVF……..3000pcs per reel