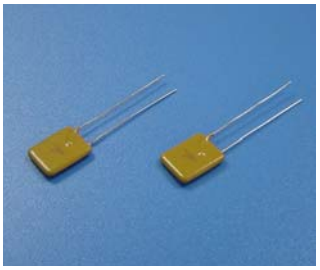
# LBLV series ***R-line Device***

## Features



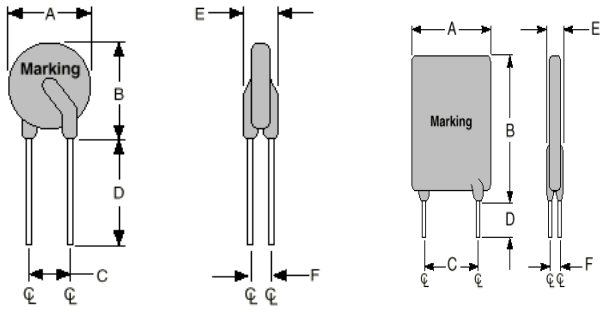
- ☐ Radial leaded devices
- ☐ Designed for use in line voltage applications, permitting maximum voltages of up to 265 VAC
- ☐ Protecting against both overcurrent and overtemperature faults on the primary side of power supplies and transformers
- ☐ Lead-free and compliant with the European Union RoHS Directive 2002/95/EC
- ☐ Recognition: UL、CSA、TUV is pending

## Applications

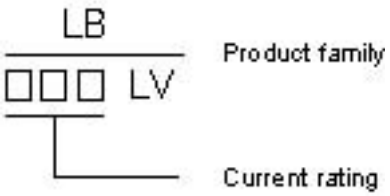
- ☐ Customer Premise Equipment
- ☐ MDF modules
- ☐ Network Interface Devices
- ☐ Base station
- ☐ Power supply

## Product Dimensions

| Part number | A | B | C | D | E | Lead | |
|---|---|---|---|---|---|---|---|
| | Max | Max | Max | Min | Typ | Style | Size(Φ) |
| LB050LV | 8.3 | 10.7 | 5.1 | 7.6 | 3.8 | 1 | 0.6 |
| LB080LV | 8.3 | 10.7 | 5.1 | 7.6 | 3.8 | 1 | 0.6 |
| LB120LV | 8.3 | 10.7 | 5.1 | 7.6 | 3.8 | 1 | 0.6 |
| LB160LV | 9.9 | 12.5 | 5.1 | 7.6 | 3.8 | 1 | 0.6 |
| LB250LV | 9.6 | 17.4 | 5.1 | 7.6 | 3.8 | 2 | 0.6 |
| LB400LV | 11.5 | 19.5 | 5.1 | 7.6 | 3.8 | 2 | 0.6 |
| LB600LV | 11.5 | 19.5 | 5.1 | 7.6 | 3.8 | 2 | 0.6 |
| LB800LV | 13.0 | 22.5 | 5.1 | 7.6 | 3.8 | 2 | 0.6 |




Marking system




*The suffix “U” means no outside envelop

* Lead materials: Tin-plate metal wire.

## Electrical Characteristics

| Part number | $I_H$ | $I_T$ | $T_{trip}$ | | $V_{max}$ interrupt | $I_{max}$ | $Pd_{typ}$ | $R_{min}$ | $R_{max}$ |
|---|---|---|---|---|---|---|---|---|---|
| | (A) | (A) | Current(A) | Time(S) | (V) | (A) | (W) | (Ω) | (Ω) |
| LB050LV | 0.05 | 0.12 | 0.25 | 15.0 | 265 | 1.0 | 18.5 | 31.00 | 22.00 |
| LB080LV | 0.08 | 0.19 | 0.40 | 15.0 | 265 | 1.2 | 7.4 | 12.00 | 20.00 |
| LB120LV | 0.12 | 0.30 | 0.60 | 15.0 | 265 | 1.2 | 3.0 | 6.50 | 15.00 |
| LB160LV | 0.16 | 0.37 | 0.80 | 15.0 | 265 | 2.0 | 2.5 | 4.10 | 14.00 |
| LB250LV | 0.25 | 0.56 | 1.25 | 18.5 | 265 | 3.5 | 1.3 | 2.10 | 12.00 |
| LB400LV | 0.40 | 0.90 | 2.00 | 26.0 | 265 | 5.5 | 0.6 | 0.97 | 12.00 |
| LB600LV | 0.60 | 1.35 | 3.00 | 36.0 | 265 | 5.5 | 0.4 | 0. 70 | 7.50 |
| LB800LV | 0.80 | 1.80 | 4.00 | 40.0 | 265 | 10.0 | 0.3 | 0. 70 | 6.50 |

$I_H$=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.

$V_{max\ interrupt}$=Maximum interrupt 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 at assigned current.

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

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

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

## Thermal Derating Chart-Ih(A)

| Part number | Maximum ambient operating temperatures(℃) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | -40 | -20 | 0 | 25 | 40 | 50 | 60 | 70 | 85 |
| LB050LV | 0.080 | 0.075 | 0.063 | 0.050 | 0.040 | 0.035 | 0.030 | 0.025 | 0.018 |
| LB080LV | 0.128 | 0.120 | 0.100 | 0.080 | 0.064 | 0.056 | 0.048 | 0.040 | 0.028 |
| LB120LV | 0.192 | 0.180 | 0.150 | 0.120 | 0.096 | 0.084 | 0.072 | 0.060 | 0.042 |
| LB160LV | 0.256 | 0.240 | 0.200 | 0.160 | 0.128 | 0.112 | 0.096 | 0.080 | 0.056 |
| LB250LV | 0.400 | 0.375 | 0.313 | 0.250 | 0.200 | 0.175 | 0.150 | 0.125 | 0.088 |
| LB400LV | 0.640 | 0.600 | 0.500 | 0.400 | 0.320 | 0.280 | 0.240 | 0.200 | 0.140 |
| LB600LV | 0.960 | 0.900 | 0.750 | 0.600 | 0.480 | 0.420 | 0.360 | 0.300 | 0.210 |
| LB800LV | 1.280 | 1.200 | 1.000 | 0.800 | 0.640 | 0.560 | 0.480 | 0.400 | 0.280 |

## 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 | $V_{max}$, $I_{max}$, 100cycles | No arcing or burning |
| Trip Endurance | $V_{max}$, 24hours | No arcing or burning |

## Typical Time-to-trip Charts at 25℃

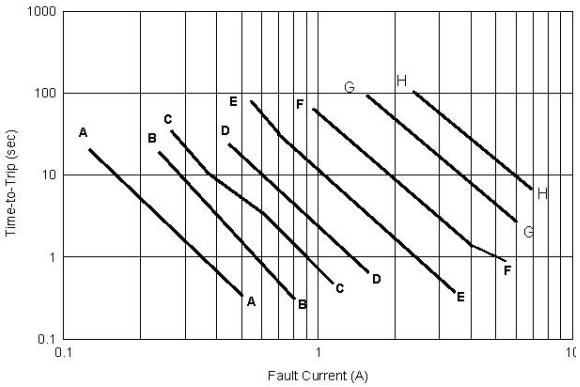
A=LB180/180U

B=LB/145/145U

C=LB120/120U

D=LB110/110U

E=LB080/080U




## Packaging and Storage

Bulk:

LB050LV~LB160LV…… ….1000pcs per bag

LB250LV~LB800LV 500pcs per bag

**Notices:**

The devices are intended for protection against occasional overcurrent or overtemperature fault conditions and should not be used when repeated fault conditions are anticipated.

Operation beyond maximum ratings or improper use may result in device damage and possible electrical arcing and flame.

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