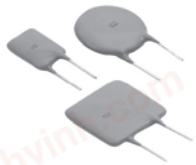
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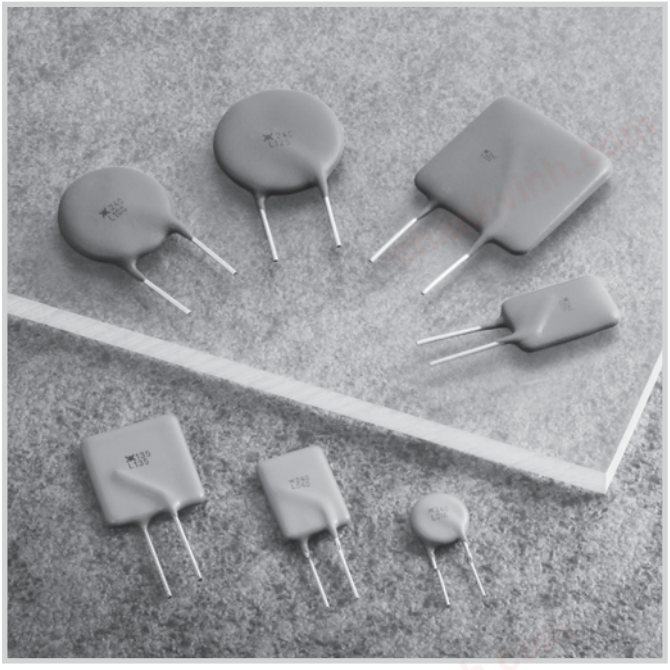


PolySwitch Resettable Devices
Line-Voltage-Rated Devices

PolySwitch line-voltage-rated (LVR) devices help protect electric motors and transformers used in commercial and home appliances from damage caused by mechanical overloads, overheating, stall, lost neutral and other potentially harmful conditions.

The LVR line-voltage product line of polymeric positive temperature coefficient (PPTC) devices includes components that are rated for line voltages of $120V_{AC}$ and $240V_{AC}$, for up to 2A of operating current at 20°C. They help protect against damage caused by both overcurrent surges and overtemperature faults. They also offer low resistance and are compatibly sized with fuse solutions.

Unlike traditional fuses, PolySwitch devices do not require replacement after a fault event. After power has been removed and the overcurrent condition eliminated, the circuit is restored to normal operating condition. Compared to bimetal breakers, they offer greater flexibility, longer lifespan and lower electromagnetic interference (EMI).



The PolySwitch LVR devices' resettable functionality and latching attributes make them a reliable, cost-effective circuit protection solution for both intermittent- and continuous-operation motor applications. Their low resistance, fast time-to-trip, and low profile help circuit designers provide a safe and dependable product, comply with regulatory agency requirements and reduce warranty repair costs.

LVR/LVB series are suitable for line-voltage applications up to a continuous operating voltage of $240V_{AC}/120V_{AC}$.

RoHS versions of all products are available.

Benefits

- Choice of many devices helps provide engineers with design flexibility
- Compatible with high-volume electronics assembly
- Assist in meeting regulatory requirements
- Higher voltage ratings allow use in new applications

Features

- RoHS compliant
- Broadest range of radial-leaded resettable devices available in the industry
- Current ratings from 50mA to 2A
- Line voltage rating of $120V_{AC}$ and $240V_{AC}$
- Agency recognition: UL, CSA, TÜV
- Fast time-to-trip
- Low resistance

Applications

- Electromagnetic loads
- Game machines
- Industrial controls
- Lighting ballasts
- Loudspeakers
- Medical equipment
- Motors, fans and blowers
- POS equipment
- Satellite video receivers
- Security and fire alarm systems
- Test and measurement equipment
- Transformers
- USB hubs, ports and peripherals

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Table L1 Product Series - Current Rating, Voltage Rating / Typical Resistance for LVR Devices

Voltage Rating	LVR 240V_{AC} / 120V_{AC}	LVB 240V_{AC}
Hold Current (A)		
0.050	25.00Ω	—
0.080	9.800Ω	—
0.120	4.800Ω	—
0.160	3.400Ω	—
0.250	1.700Ω	—
0.330	1.000Ω	—
0.400	0.800Ω	—
0.550	0.590Ω	—
0.750	0.400Ω	—
1.000	0.276Ω	—
1.250	0.209Ω	0.209Ω
1.350	—	—
2.000	0.110Ω	—

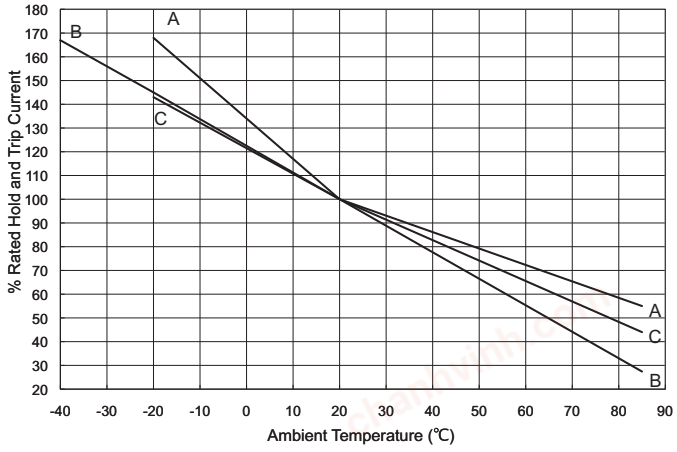
Table L2 Thermal Derating for LVR Devices [Hold Current (A) at Ambient Temperature (°C)]

	Maximum Ambient Temperature								
Part Number	**-20°C**	**0°C**	**20°C**	**25°C**	**40°C**	**50°C**	**60°C**	**70°C**	**85°C**
LVR									
LVR005N	0.08	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.02
LVR008N	0.12	0.10	0.08	0.08	0.07	0.06	0.05	0.04	0.03
LVR012	0.18	0.15	0.12	0.12	0.10	0.09	0.07	0.06	0.04
LVR016	0.24	0.20	0.16	0.16	0.13	0.11	0.10	0.08	0.05
LVR025	0.38	0.32	0.25	0.25	0.21	0.18	0.15	0.13	0.09
LVR033	0.50	0.42	0.33	0.33	0.27	0.23	0.20	0.17	0.11
LVR040	0.61	0.51	0.40	0.40	0.33	0.28	0.24	0.20	0.14
LVR055	0.80	0.68	0.55	0.54	0.46	0.40	0.35	0.29	0.22
LVR075	1.23	0.98	0.75	0.74	0.60	0.56	0.49	0.45	0.41
LVR100	1.65	1.30	1.00	0.94	0.80	0.75	0.65	0.60	0.55
LVR125	2.06	1.63	1.25	1.20	1.00	0.94	0.81	0.75	0.69
LVR200	3.30	2.60	2.00	1.97	1.60	1.50	1.30	1.20	1.10
LVR075-240	1.23	0.98	0.75	0.74	0.60	0.56	0.49	0.45	0.41
LVR100-240	1.65	1.30	1.00	0.94	0.80	0.75	0.65	0.60	0.55
LVR125-240	2.06	1.63	1.25	1.20	1.00	0.94	0.81	0.75	0.69
LVR200-240	3.30	2.60	2.00	1.97	1.60	1.50	1.30	1.20	1.10

		Maximum Ambient Temperature								
Part Number	**-40°C**	**-20°C**	**0°C**	**20°C**	**25°C**	**40°C**	**50°C**	**60°C**	**70°C**	**85°C**
LVB										
LVB125	2.09	1.81	1.53	1.25	1.19	0.99	0.86	0.73	0.60	0.41

Figure L1 Thermal Derating Curve for LVR Devices

A = LVR075-LVR200
B = LVB125
C = LVR005N-LVR055



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Table L3 Electrical Characteristics for LVR Devices*

Part Number	I_H (A)	I_T (A)	V_{MAX}† Operating (V_{AC})	V_{MAX}† Interrupt (V_{AC})	I_{MAX}† Interrupt (A)	$P_{D\ Typ}$ (W)	Max. Time-to-trip (A)	Max. Time-to-trip (s)	R_{MIN} (Ω)	R_{MAX} (Ω)	R_{1MAX} (Ω)	Lead Size [mm (AWG)]
LVR												
LVR005NK	0.05	0.12	240 120	265 135	1.0 20.0	0.9	0.25	10.0	18.500	31.000	65.000	[0.51mm (24)]
LVR005NS	0.05	0.12	240 120	265 135	1.0 20.0	0.9	0.25	10.0	18.500	31.000	65.000	[0.51mm (24)]
LVR008NK	0.08	0.19	240 120	265 135	1.2 20.0	0.9	0.40	10.0	7.400	12.000	26.000	[0.51mm (24)]
LVR008NS	0.08	0.19	240 120	265 135	1.2 20.0	0.9	0.40	10.0	7.400	12.000	26.000	[0.51mm (24)]
LVR012K	0.12	0.30	240 120	265 135	1.2 20.0	1.0	0.60	15.0	3.000	6.500	12.000	[0.51mm (24)]
LVR012S	0.12	0.30	240 120	265 135	1.2 20.0	1.0	0.60	15.0	3.000	6.500	12.000	[0.51mm (24)]
LVR016K	0.16	0.37	240 120	265 135	2.0 20.0	1.4	0.80	15.0	2.500	4.100	7.800	[0.51mm (24)]
LVR016S	0.16	0.37	240 120	265 135	2.0 20.0	1.4	0.80	15.0	2.500	4.100	7.800	[0.51mm (24)]
LVR025K	0.25	0.56	240 120	265 135	3.5 20.0	1.5	1.25	18.5	1.300	2.100	3.800	[0.64mm (22)]
LVR025S	0.25	0.56	240 120	265 135	3.5 20.0	1.5	1.25	18.5	1.300	2.100	3.800	[0.64mm (22)]
LVR033K	0.33	0.74	240 120	265 135	4.5 20.0	1.7	1.65	21.0	0.770	1.240	2.600	[0.64mm (22)]
LVR033S	0.33	0.74	240 120	265 135	4.5 20.0	1.7	1.65	21.0	0.770	1.240	2.600	[0.64mm (22)]
LVR040K	0.40	0.90	240 120	265 135	5.5 20.0	2.0	2.00	24.0	0.600	0.970	1.900	[0.64mm (22)]
LVR040S	0.40	0.90	240 120	265 135	5.5 20.0	2.0	2.00	24.0	0.600	0.970	1.900	[0.64mm (22)]
LVR055K	0.55	1.25	240 120	265 135	7.0 20.0	3.4	2.75	26.0	0.450	0.730	1.450	[0.81mm (20)]
LVR055S	0.55	1.25	240 120	265 135	7.0 20.0	3.4	2.75	26.0	0.450	0.730	1.450	[0.81mm (20)]
LVR075S	0.75	1.50	240	265	7.5	2.6	3.75	18.0	0.316	0.483	0.839	[0.81mm (20)]
LVR100S	1.00	2.00	240	265	10.0	2.9	5.00	21.0	0.218	0.334	0.580	[0.81mm (20)]
LVR125S	1.25	2.50	240	265	12.5	3.3	6.25	23.0	0.165	0.253	0.440	[0.81mm (20)]
LVR200S	2.00	4.00	240	265	20.0	4.5	10.00	28.0	0.089	0.131	0.221	[0.81mm (20)]
LVR075S-240	0.75	1.50	240	265	7.5	2.6	3.75	18.0	0.316	0.483	0.839	[0.81mm (20)]
LVR100S-240	1.00	2.00	240	265	10.0	2.9	5.00	21.0	0.218	0.334	0.580	[0.81mm (20)]
LVR125S-240	1.25	2.50	240	265	12.5	3.3	6.25	23.0	0.165	0.253	0.440	[0.81mm (20)]
LVR200S-240	2.00	4.00	240	265	20.0	4.5	10.00	28.0	0.089	0.131	0.221	[0.81mm (20)]
LVB												
LVB125	1.25	2.50	240	265	12.5	4.0	8.00	5.0	0.152	0.292	0.482	[0.81mm (20)]

Notes:

I_H : Hold current: maximum current device will pass without interruption in 20°C still air.
I_T : Trip current: minimum current that will switch the device from low resistance to high resistance in 20°C still air.
V_{MAX} Operating: Maximum continuous voltage device can withstand without damage at rated current.
V_{MAX} Interrupt : Under specified conditions this is the highest voltage that can be applied to the device at the maximum interrupt current.
I_{MAX} Interrupt : Maximum fault current device can withstand without damage at rated voltage.
P_D : Power dissipated from device when in the tripped state in 20°C still air.
R_{MIN} : Minimum resistance of device as supplied at 20°C unless otherwise specified.
R_{MAX} : Maximum resistance of device as supplied at 20°C unless otherwise specified.
R_{1MAX} : Maximum resistance of device when measured one hour post trip at 20°C unless otherwise specified.

* Electrical characteristics determined at 20°C.
† See Application Limitations on next page.

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Figures L2-L6 Dimension Figures for LVR Devices

Figure L2

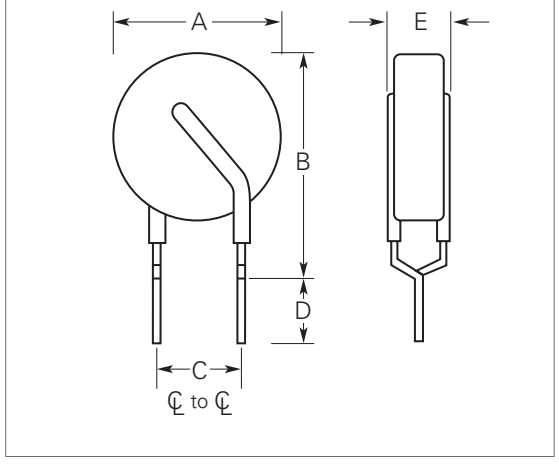


Figure L3

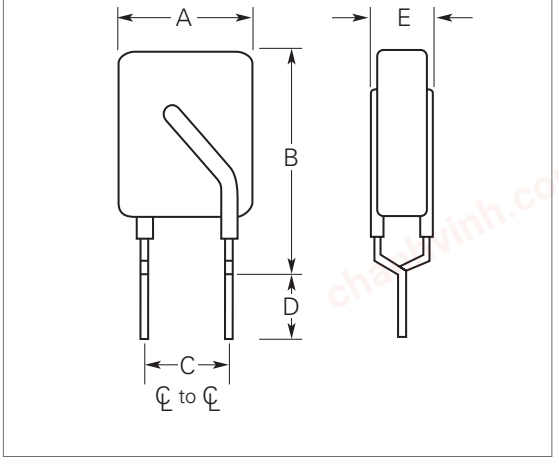


Figure L4

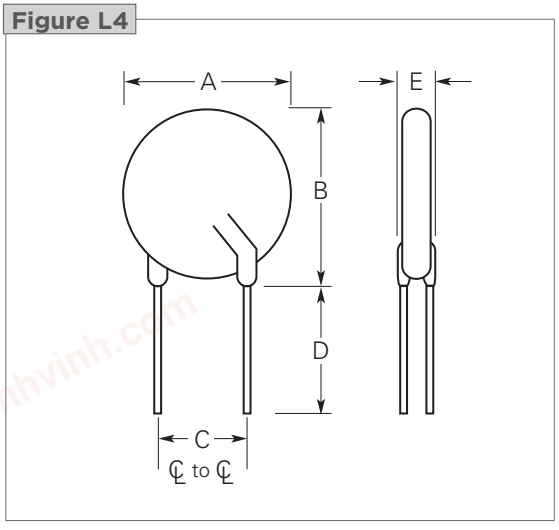


Figure L5

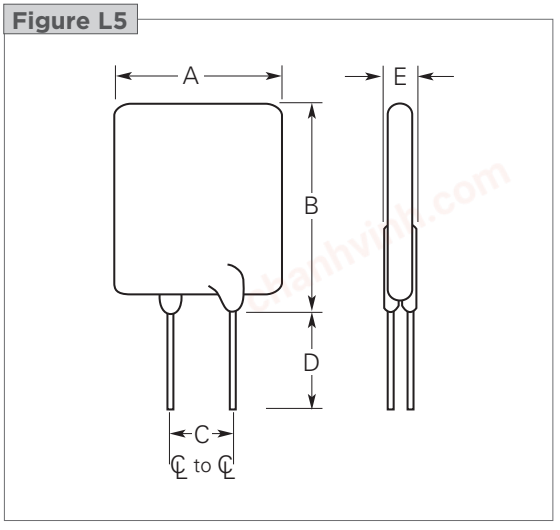
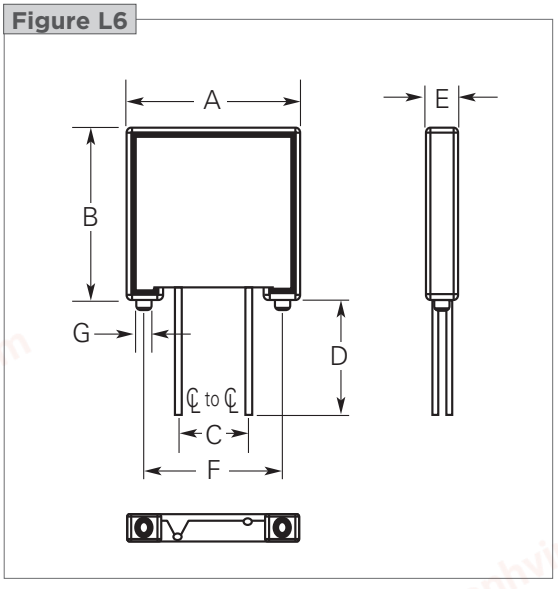


Figure L6



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Table L4 Dimensions and Weights for LVR Devices - Millimeters (Inches)

Part Number	A Min	A Max	B Min	B Max	C Min	C Max	D Min	D Max	E Min	E Max	Figure	Device Mass(g) (Only for Reference)
LVR												
LVR005NK	—	6.9 (0.27)	—	12.1 (0.48)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	4.6 (0.18)	L2	0.177
LVR005NS	—	6.9 (0.27)	—	9.9 (0.39)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	4.6 (0.18)	L4	0.211
LVR008NK	—	7.2 (0.28)	—	12.4 (0.49)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	4.6 (0.18)	L2	0.233
LVR008NS	—	7.2 (0.28)	—	10.2 (0.40)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	4.6 (0.18)	L4	0.211
LVR012K	—	8.3 (0.33)	—	12.9 (0.51)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L2	0.231
LVR012S	—	8.3 (0.33)	—	10.7 (0.43)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L4	0.235
LVR016K	—	9.9 (0.39)	—	13.8 (0.54)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L2	0.253
LVR016S	—	9.9 (0.39)	—	12.5 (0.50)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L4	0.291
LVR025K	—	9.6 (0.38)	—	18.8 (0.74)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L3	0.508
LVR025S	—	9.6 (0.38)	—	17.4 (0.69)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L5	0.472
LVR033K	—	11.4 (0.45)	—	19.0 (0.75)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L3	0.628
LVR033S	—	11.4 (0.45)	—	16.5 (0.65)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L5	0.600
LVR040K	—	11.5 (0.46)	—	20.9 (0.82)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L3	0.698
LVR040S	—	11.5 (0.46)	—	19.5 (0.77)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.8 (0.15)	L5	0.688
LVR055K	—	14.0 (0.55)	—	22.4 (0.88)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	4.1 (0.16)	L3	1.100
LVR055S	—	14.0 (0.55)	—	21.7 (0.85)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	4.1 (0.16)	L5	1.060
LVR075S	—	11.5 (0.45)	—	23.4 (0.92)	4.1 (0.16)	6.1 (0.24)	5.1 (0.20)	—	—	4.8 (0.19)	L5	1.088
LVR100S	—	18.7 (0.74)	—	24.4 (0.96)	8.9 (0.35)	11.4 (0.45)	5.1 (0.20)	—	—	5.1 (0.20)	L4	1.345
LVR125S	—	21.2 (0.84)	—	27.4 (1.08)	8.9 (0.35)	11.4 (0.45)	5.1 (0.20)	—	—	5.3 (0.21)	L4	1.800
LVR200S	—	24.9 (0.98)	—	33.8 (1.33)	8.9 (0.35)	11.4 (0.45)	5.1 (0.20)	—	—	6.1 (0.24)	L5	2.777
LVR075S-240	—	11.5 (0.45)	—	23.4 (0.92)	4.1 (0.16)	6.1 (0.24)	5.1 (0.20)	—	—	4.8 (0.19)	L5	1.088
LVR100S-240	—	18.7 (0.74)	—	24.4 (0.96)	8.9 (0.35)	11.4 (0.45)	5.1 (0.20)	—	—	5.1 (0.20)	L4	1.345
LVR125S-240	—	21.2 (0.84)	—	27.4 (1.08)	8.9 (0.35)	11.4 (0.45)	5.1 (0.20)	—	—	5.3 (0.21)	L4	1.800
LVR200S-240	—	24.9 (0.98)	—	33.8 (1.33)	8.9 (0.35)	11.4 (0.45)	5.1 (0.20)	—	—	6.1 (0.24)	L5	2.777

Part Number	A Min	A Max	B Min	B Max	C Min	C Max	D Min	D Max	E Min	E Max	F Min	F Max	G Min	G Max	Figure	Device Mass(g) (Only for Reference)
LVB																
LVB125	24.8 (0.98)	25.2 (.099)	26.8 (1.06)	27.2 (1.07)	8.9 (0.35)	11.4 (0.45)	5.1 (0.20)	—	4.2 (0.17)	4.6 (0.18)	20.0 (0.79)	20.3 (0.80)	— (—)	2.5 (0.80)	L6	1.653

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Figure L7 Typical Time-to-Trip Curves at 20°C for LVR Devices

LVR/LVB

A = LVR005N
B = LVR008N
C = LVR012
D = LVR016
E = LVR025
F = LVR033
G = LVR040
H = LVR055
I = LVR075/LVR075-240
J = LVR0100/LVR100-240
K = LVR125/LVR125-240
L = LVB125
M = LVR200/LVR200-240

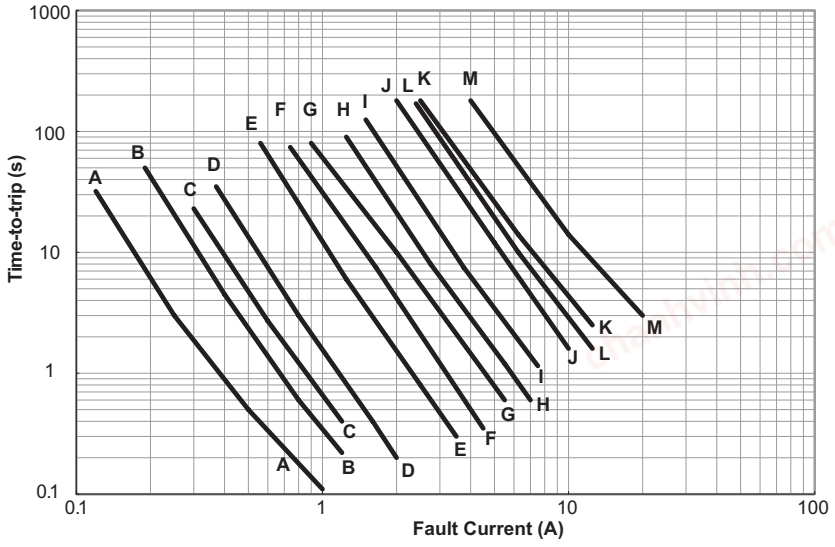


Table L5 Physical Characteristics and Environmental Specifications for LVR Devices

LVR/LVB
Physical Characteristics

Lead Material	LVR005N to LVR016:	Tin-plated Copper, (24AWG), ø0.51mm (0.020in)
	LVR025 to LVR040:	Tin-plated Copper, (22AWG), ø0.64mm (0.025in)
	LVR055 to LVR200:	Tin-plated Copper, (20AWG), ø0.81mm (0.032in)
	LVR075-240 to LVR200-240:	Tin-plated Copper, (20AWG), ø0.81mm (0.032in)
	LVB125:	Tin-plated Copper, (20AWG), ø0.81mm (0.032in)
Soldering Characteristics	Solderability per ANSI/J-STD-002 Category 3	
Solder Heat Withstand	Per IEC-STD 68-2-20, Test Tb, Method 1A, Condition B, Can Withstand 10 s at 260°C ±5°C	
Insulating Material	LVR005N to LVR055:	Cured, Flame-retardant Epoxy Polymer, Meets UL 94V-0
	LVR075 to LVR200:	Cured, Flame-retardant Modified Silicone, Meets UL 94V-0
	LVR075-240 to LVR200-240:	Cured, Flame-retardant Epoxy Polymer, Meets UL 94V-0
	LVB125:	Glass Reinforced PBT, Meets UL 94V-0

Note: Devices are not intended to be placed through a reflow process.

Environmental Specifications

Test	Conditions	Resistance Change
Passive Aging	70°C, 1000 hrs	±10%
	85°C, 1000 hrs	±10%
Humidity Aging	85°C, 85%RH, 1000 hrs	±20%
Thermal Shock	85°C, -40°C (10 Times)	±15%
Solvent Resistance	MIL-STD-202, Method 215F	No Change

Agency Recognitions for LVR Devices

UL	File # E74889
CSA	File # CA78165
TÜV	Certificate Number Available on Request (per IEC 60730-1).

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Table L6 Packaging and Marking Information for LVR Devices

Part Number	Bag Quantity	Tape and Reel Quantity	Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
LVR/LVB						
LVR005NK	500	—	—	10,000	L005	UL, CSA, TÜV
LVR005NK-2	—	1,500	—	7,500	L005	UL, CSA, TÜV
LVR005NS	500	—	—	10,000	L005	UL, CSA, TÜV
LVR005NS-2	—	1,500	—	7,500	L005	UL, CSA, TÜV
LVR008NK	500	—	—	10,000	L008	UL, CSA, TÜV
LVR008NK-2	—	1,500	—	7,500	L008	UL, CSA, TÜV
LVR008NS	500	—	—	10,000	L008	UL, CSA, TÜV
LVR008NS-2	—	1,500	—	7,500	L008	UL, CSA, TÜV
LVR012K	500	—	—	10,000	L012	UL, CSA, TÜV
LVR012K-2	—	2,000	—	10,000	L012	UL, CSA, TÜV
LVR012S	500	—	—	10,000	L012	UL, CSA, TÜV
LVR012S-2	—	2,000	—	10,000	L012	UL, CSA, TÜV
LVR016K	500	—	—	10,000	L016	UL, CSA, TÜV
LVR016K-2	—	2,000	—	10,000	L016	UL, CSA, TÜV
LVR016S	500	—	—	10,000	L016	UL, CSA, TÜV
LVR016S-2	—	2,000	—	10,000	L016	UL, CSA, TÜV
LVR025K	500	—	—	10,000	L025	UL, CSA, TÜV
LVR025K-2	—	2,000	—	10,000	L025	UL, CSA, TÜV
LVR025S	500	—	—	10,000	L025	UL, CSA, TÜV
LVR025S-2	—	2,000	—	10,000	L025	UL, CSA, TÜV
LVR033K	500	—	—	10,000	L033	UL, CSA, TÜV
LVR033K-2	—	2,000	—	10,000	L033	UL, CSA, TÜV
LVR033S	500	—	—	10,000	L033	UL, CSA, TÜV
LVR033S-2	—	2,000	—	10,000	L033	UL, CSA, TÜV
LVR040K	500	—	—	10,000	L040	UL, CSA, TÜV
LVR040K-2	—	2,000	—	10,000	L040	UL, CSA, TÜV
LVR040S	500	—	—	10,000	L040	UL, CSA, TÜV
LVR040S-2	—	2,000	—	10,000	L040	UL, CSA, TÜV
LVR055K	500	—	—	10,000	L055	UL, CSA, TÜV
LVR055S	500	—	—	10,000	L055	UL, CSA, TÜV
LVR055S-2	—	1,000	—	5,000	L055	UL, CSA, TÜV
LVR075S	500	—	—	10,000	L075	UL, CSA, TÜV
LVR100S	250	—	—	5,000	L100	UL, CSA, TÜV
LVR125S	250	—	—	5,000	L125	UL, CSA, TÜV
LVR200S	250	—	—	5,000	L200	UL, CSA, TÜV
LVR075S-240	500	—	—	10,000	L075	UL, CSA, TÜV
LVRO75S-240-2	—	1,000	—	5,000	L075	UL, CSA, TÜV
LVR075S-240-AP	—	—	1,000	5,000	L075	UL, CSA, TÜV
LVR100S-240	250	—	—	5,000	L100	UL, CSA, TÜV
LVR100S-240-2	—	1,000	—	5,000	L100	UL, CSA, TÜV
LVR100S-240-AP	—	—	1,000	5,000	L100	UL, CSA, TÜV
LVR125S-240	250	—	—	5,000	L125	UL, CSA, TÜV
LVR125S-240-2	—	1,000	—	5,000	L125	UL, CSA, TÜV
LVR125S-240-AP	—	—	1,000	5,000	L125	UL, CSA, TÜV
LVR200S-240	250	—	—	5,000	L200	UL, CSA, TÜV
LVR200S-240-2	—	1,000	—	5,000	L200	UL, CSA, TÜV
LVR200S-240-AP	—	—	1,000	5,000	L200	UL, CSA, TÜV
LVB125	250	—	—	5,000	B125	UL

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Table L7 Tape and Reel Specifications for LVR Devices

LVR devices are available in tape and reel packaging per EIA468-B/IEC60286-2 standards.
See Figures L8 and L9 for details.

Description	EIA Mark	Dimension (mm)	Tolerance
Carrier Tape Width	W	18	-0.5/+1.0
Hold-down Tape Width	W_4	11	Minimum
Top Distance between Tape Edges	W_6	3	Maximum
Sprocket Hole Position	W_5	9	-0.5/+0.75
Sprocket Hole Diameter	D_0	4	± 0.2
Abscissa to Plane (Straight Lead) (LVR005N to LVR200)	H	18.5	± 2.5
Abscissa to Plane (Kinked Lead) (LVR005N to LVR055)	H_0	16.0	± 0.5
Abscissa to Top (LVR005N to LVR016)	H_1	32.2	Maximum
Abscissa to Top* (LVR025 to LVR200)	H_1	45.0	Maximum
Overall Width with Lead Protrusion (LVR005N to LVR016)	C_1	43.2	Maximum
Overall Width with Lead Protrusion (LVR025 to LVR200)	C_1	56.0	Maximum
Overall Width without Lead Protrusion (LVR005N to LVR016)	C_2	42.5	Maximum
Overall Width without Lead Protrusion (LVR025 to LVR200)	C_2	56.0	Maximum
Lead Protrusion	L_1	1.0	Maximum
Protrusion of Cut-out	L	11.0	Maximum
Protrusion beyond Hold-down Tape	I_2	Not Specified	—
Sprocket Hole Pitch	P_0	12.7	± 0.3
Device Pitch (LVR005N to LVR040)	—	12.7	± 0.3
Device Pitch (LVR055 to LVR200)	—	25.4	± 0.6
Pitch Tolerance	—	20 Consecutive	± 1
Tape Thickness	t	0.9	Maximum
Overall Tape and Lead Thickness (LVR005N to LVR040)	t_1	1.5	Maximum
Overall Tape and Lead Thickness (LVR055 to LVR200)	t_1	2.3	Maximum
Splice Sprocket Hole Alignment	—	0	± 0.3
Body Lateral Deviation	Δh	0	± 1.0
Body Tape Plane Deviation	Δp	0	± 1.3
Ordinate to Adjacent Component Lead	P_1	3.81	± 0.7
Lead Spacing*	F	5.08	+0.75/-0.5
Reel Width (LVR005N to LVR040)	w_2	56.0	Maximum
Reel Width* (LVR055 to LVR200)	w_2	63.5	Maximum
Reel Diameter	a	370.0	Maximum
Space between Flanges* (LVR005N to LVR040)	w_1	48.0	Maximum
Space between Flanges* (LVR055 toLVR200)	w_1	55.0	Maximum
Arbor Hold Diameter	c	26.0	± 12.0
Core Diameter*	n	91.0	Maximum
Box	—	64/372/362	Maximum
Consecutive Missing Places	—	None	—
Empty Places per Reel	—	0.1%	Maximum

*Differs from EIA specification.

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Figure L8 EIA Referenced Taped Component Dimensions for LVR Devices

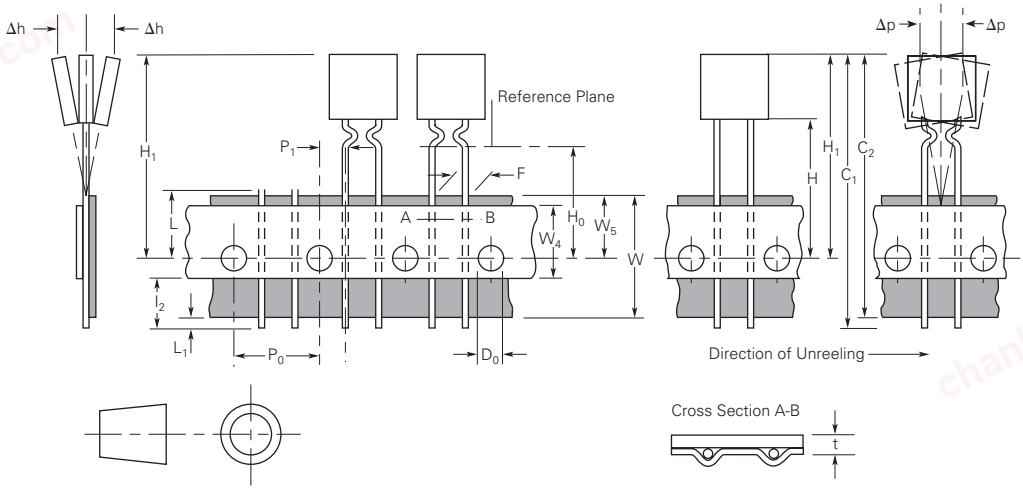
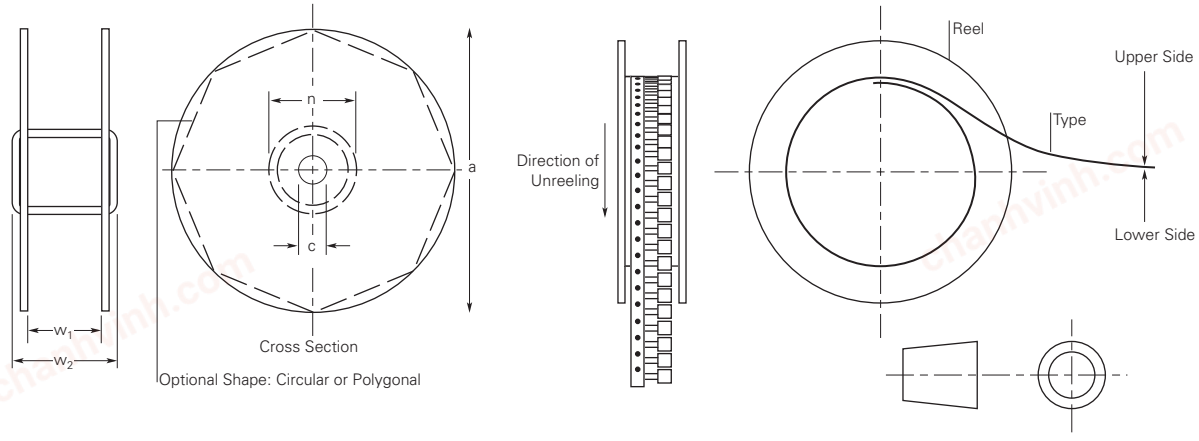
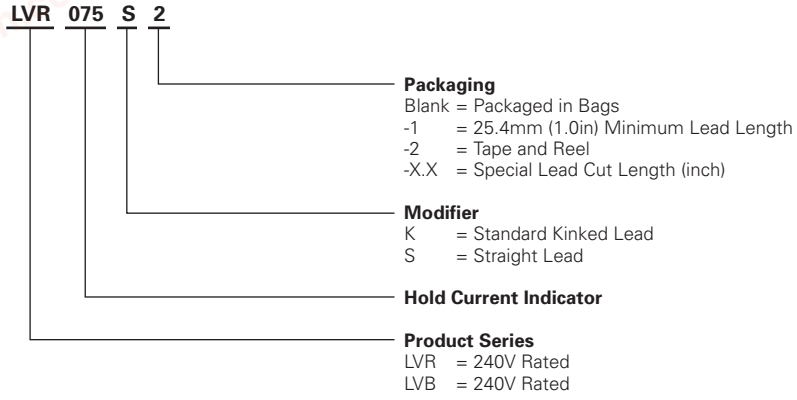


Figure L9 EIA Referenced Reel Dimensions for LVR Devices



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Part Numbering System for LVR Devices



⚠ Warning: Application Limitations for the LVR Product Line

- Users should independently evaluate the suitability of and test each product selected for their own application.
- This product should not be used in an application where the maximum interrupt voltage or maximum interrupt current can be exceeded in a fault condition. Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- A PPTC device is not a fuse - it is a nonlinear thermistor that limits current. Under a fault condition all PPTC devices go into a high-resistance state but do not open circuit, so hazardous voltage may be present at PPTC locations.
- The devices are intended for protection against damage caused by occasional overcurrent or overtemperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- In most applications power must be removed and the fault condition cleared in order to reset a PPTC device; however under certain unusual conditions, a PPTC device may automatically reset. PPTC devices should not be used in an application where an automatic reset could create a safety hazard, such as garbage disposals and blenders. Appropriate qualification testing should be performed.
- It is the responsibility of the user to determine the need for back-up or failsafe protection to prevent damage that may occur in the event of abnormal function or failure of the PPTC device.
- Operation in circuits with a large inductance can generate a circuit voltage (Ldi/dt) above the rated voltage of a PPTC device. This product should not be used in an application where the maximum interrupt voltage or maximum interrupt current can be exceeded by inductive spikes.
- Devices are not recommended for reflow soldering.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, or mechanical procedures for electronic components.
- *PPTC devices are not recommended for installation in applications where the device is constrained such that its PTC properties are inhibited, for example in rigid potting materials or in rigid housings, which lack adequate clearance to accommodate device expansion.
- *Contamination of the PPTC material with certain silicone-based oils or some aggressive solvents can adversely impact the performance of the devices.

*Does not apply for LVB devices.