

Specification Status: RELEASED

Electrical Rating at 20°C

Rated Operating Voltage/ Interrupt Current:

240 V_{AC} /4.5 A_{RMS}
240 V_{DC} /4.5 A_{DC}
135 V_{AC}/20.0 A_{RMS}
135 V_{DC}/20.0 A_{DC}

Max Interrupt Voltage: 265 V_{AC/DC} 4.5 A_{RMS}

Insulating Material :
 Cured, Flame Retardant Epoxy Polymer

Lead Material: 22 AWG Sn Plated Copper

Marking:

- ⊗ 240 — Raychem Logo and Voltage
- L033 — Part Identification
- — Lot Identification (can be on back)

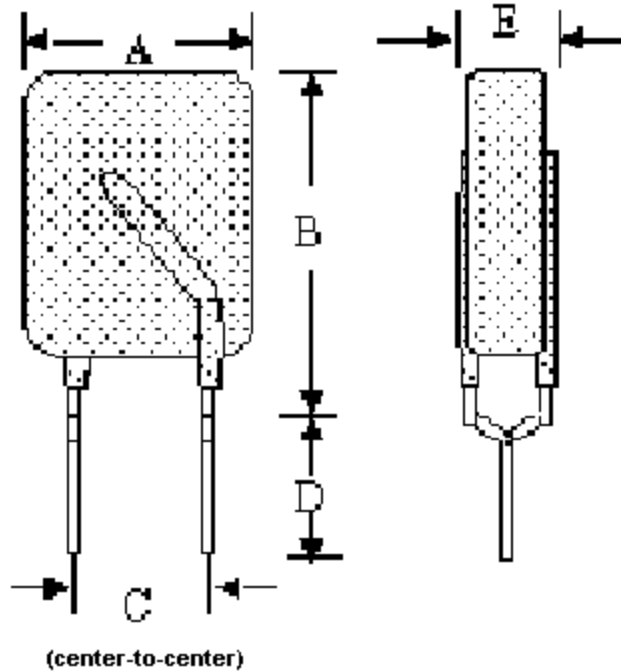


TABLE I. DIMENSIONS:

| | A | | B | | C | | D | | E | |
|------|-----|--------|-----|--------|--------|--------|--------|-----|-----|--------|
| | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
| mm: | -- | 11.4 | -- | 19.0 | 4.3 | 5.8 | 7.6 | -- | -- | 3.8 |
| in*: | -- | (0.45) | -- | (0.75) | (0.17) | (0.23) | (0.30) | -- | -- | (0.15) |

*Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

| I _{HOLD} RATED CURRENT | CURRENT RATINGS | | TIME TO TRIP | RESISTANCE | | POST-TRIP RESISTANCE STANDARD TRIP | NOMINAL TRIPPED POWER DISSIPATION @ 265 V _{RMS} |
|---------------------------------------|-------------------------|--------------------------------|-----------------------------------|------------------------------|------|---|--|
| | AMPS AT 20°C HOLD | AMPS AT 20°C HOLD TRIP | SECONDS AT 20°C, 1.65 A MAX | OHMS AT 20°C MIN MAX | | OHMS AT 20°C MAX | WATTS AT 20°C |
| 0.33 | 0.33 | 0.74 | 21.0 | 0.77 | 1.24 | 2.6 | 1.7 |

Recognitions: UL, TUV, CSA recognized.
 Reference Documents: PS300
 Precedence: This specification takes precedence over documents referenced herein.
 Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid.
 Warning: Refer to Page 2 of this document for application limitations.

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PolySwitch®
PTC Devices
Overcurrent Protection Device

PRODUCT: LVR033K

DOCUMENT: SCD 25495
PCN: F74007
REV LETTER: E
REV DATE: MAY 27, 2004
PAGE NO.: 2 OF 2



WARNING

Warning: Application Limitations for LVR Product Line

1. Users should independently evaluate the suitability of and test each product selected for their own application.
2. This product should not be used in an application where 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.
3. A PTC device is not a fuse - it is a nonlinear thermistor that limits current. Because under a fault condition all PTC devices go into a high resistance state but not open circuit, hazardous voltage may be present at PTC locations.
4. 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.
5. In most applications, power must be removed and the fault condition cleared in order to reset a PTC device. However, under certain unusual conditions, a PTC device may automatically reset (see Raychem Circuit Protection Databook). Accordingly, PTC devices should not be used in an application where an automatic reset could create a safety hazard, such as garbage disposals and blenders.
6. It is the responsibility of the user to determine the need for back up or fail safe protection to prevent damage that may occur in the event of abnormal function or failure of the PTC device.
7. Operation in circuits with a large inductance can generate a circuit voltage (Ldi/dt) above the rated voltage of a PTC device.
8. Devices are not recommended for reflow soldering.
9. Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, or mechanical procedures for electronic components.
10. PTC devices are not recommended to be installed 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.
11. Contamination of the PTC material with certain silicone-based oils or some aggressive solvents can adversely impact the performance of the devices.