PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: LVR012S

DOCUMENT: SCD24904
REV LETTER: O
REV DATE: JULY 26, 2016

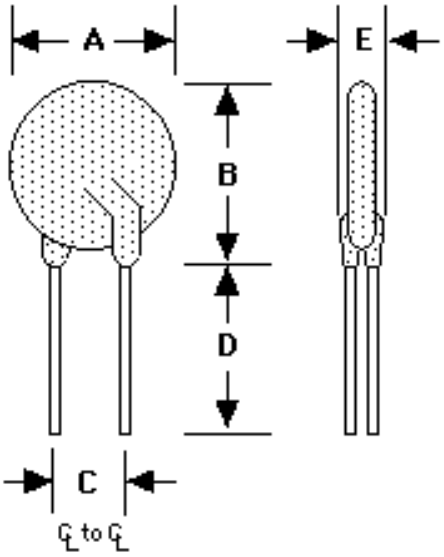
Specification Status: Released

Rated Operating Voltage at 20 °C (AC/DC):
240 V

Maximum Interrupt Voltage / Current at 20 °C (AC/DC):
265 V, 1.2 A
135 V, 20.0 A

Insulating Material:
Cured, Flame Retardant Epoxy Polymer

Lead Material:
24 AWG Sn-Plated Copper (0.51mm/0.020" nominal diameter)



Marking:

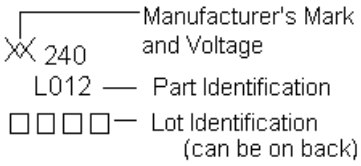


TABLE I. DIMENSIONS:

	A		B		C		D		E	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm:	--	8.3	--	10.7	4.3	5.8	7.6	--	--	3.8
in:*	--	(0.33)	--	(0.43)	(0.17)	(0.23)	(0.30)	--	--	(0.15)

*Rounded off approximation

TABLE II. PERFORMANCE RATINGS @ 20 °C:

HOLD CURRENT (A)	TRIP CURRENT (A)	RESISTANCE (Ω)		TIME TO TRIP(SEC) @ 0.6A	POST-TRIP RESISTANCE (Ω)	TRIPPED-STATE POWER DISSIPATION @ 265 V (W)
		R MIN	R MAX	MAX	MAX	TYP
0.12	0.30	3.0	6.5	15.0	12.0	1.0

*Post Trip Resistance measured after one hour.

Agency Recognitions:	UL (File #E74889), CSA (File #78165), TUV, CQC
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

Materials Information

ROHS Compliant — Directive 2002/95/EC Compliant

ELV Compliant — Directive 2000/53/EC Compliant

Pb-Free

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Warning: Application Limitations for the 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 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.
3. 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.
4. The devices are intended for protection against occasional overcurrent or over temperature 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 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.
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 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.
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.

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