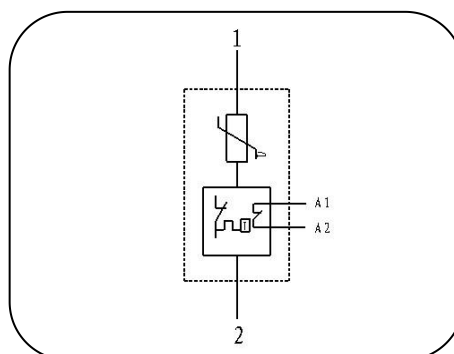


MODULAR THERMALLY PROTECTED MOV

PTMOV



Circuit diagram

UL1449 5th Type 1ca surge suppressor with thermal protection designed to open in the event of overheating due to an abnormal over-voltage or temporary over voltage (TOV) and will interrupt any abnormal current that may be encountered.

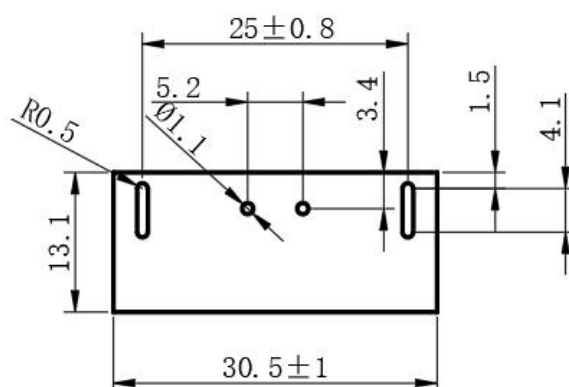
PTMOV is size optimization and space efficiency PCB mounted SPD with nominal discharge current up to 10kA, will be easy integrated on printed circuit boards (PCB) and close to sensitive electronic element inside device, to minimize the potential impact of lightning events.

Technical Features

- UL1449 5th & CSA approved for Type1CA, UL File No. E319871, compliant with IEC/EN 61643-1/11 standard
- PCB mounting design, compatible with reflow and wave soldering procedure
- Compact size to save installation space
- Quick thermal response and perfect circuit cutoff function due to special thermal disconnecter design with internal arc extinguishing device(Patented)
- Higher nominal discharge current up to 10kA (8/20μs) and discharge capacity up to 25kA 8/20μs
- SCCR up to 200kArms without external fuse or CB
- Floating remote signaling contact (50mA, 12Vdc) for fault indication
- Wide operating temperature range and high reliability
- Application in the power electronics, power supply etc.

PCB Layout Dimensions:

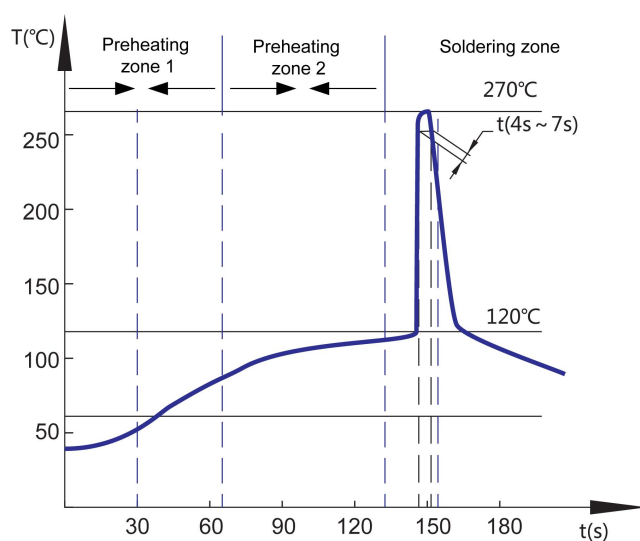
Unit: mm, Tolerance without ± 0.5 mm



Technical Data

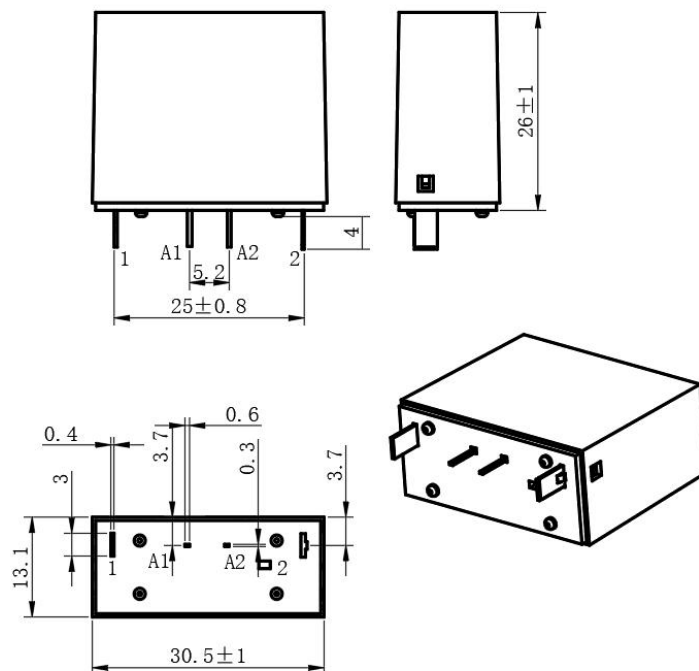
Type		PTMOVxxx/S		
		150	320	420
In Accordance With		ANSI/UL1449-5th; IEC61643-11:2012		
Category		Type 1ca per UL 1449 5 th , CSA C22.2		
Thermal Disconnecter (Patented)		Internal thermal disconnecter & arc extinguishing		
Max. Continuous Operating Voltage (AC/DC)	Mcov	150V/200V	320/410	420/560
Nominal Varistor Voltage @1ma	Vn			
Nominal Discharge Current(8/20 μ s) x 15 Times	In	10kA		
Max. Discharge Current(8/20 μ s) x 1 Time	Imax	25kA		
Voltage Protection Level	Vpr	0.6kV	1.0kV	1.2kV
Surge Energy Rating: (10/1000 μ s)	Wtm	302J	665J	790J
Typical Capacitance value @1kHz reference	C	2480pF	1100pF	835pF
UL Short Circuit Current Rating	SCCR	200kA		
Response Time	Ta	≤ 25 ns		
Operating Temperature Range		- 40°C ~ + 85°C		
Operating Altitude		-500~+4000m		
Enclosure Material		Thermoplastic; extinguishing degree UL94 V-0		
Protection Degree		IP20		
Insulation Resistance		≥ 10 MOhm		
Electric Strength		≥ 2500 V		
Remote Alarm Contact		Switching isolation, Open: failure; Close: normal, Rating:0.1A,12Vdc (max)		
Approvals, Certifications		cULus, CE		

Recommended Soldering Profiles:



Dimension drawing

Unit:mm, Tolerance without $\pm 0.5\text{mm}$

Storage

- The parts should be soldered after shipment from Eprotek within 2 years.
- The parts are to be left in the original packing in order to avoid any soldering problems caused by oxidized terminals.
- Storage temperature: -10 to 45°C . Max. relative humidity (without condensation): $< 75\%$.

Environmental

The parts are designed for indoor applications. This product should not be exposed to direct sunlight, rain or condensation, steam, saline spray, corrosive gases etc