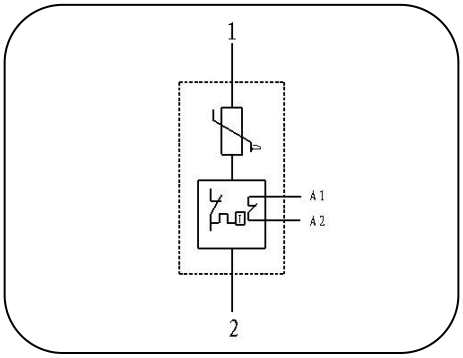
MODULAR THERMALLY PROTECTED MOV
PTMOV



Circuit diagram

The 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.

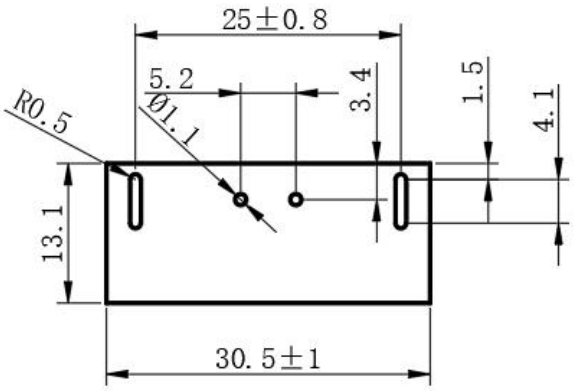
PTMOV is size optimization and space efficiency PCB mounted SPD with nominal discharge current up to 10kA, will be easy integrated on printed circuit boards (PCB) and close to sensitive electronic element inside device, to minimize the potential impact of lightning events.

Technical Features

- 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 disconnector 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:

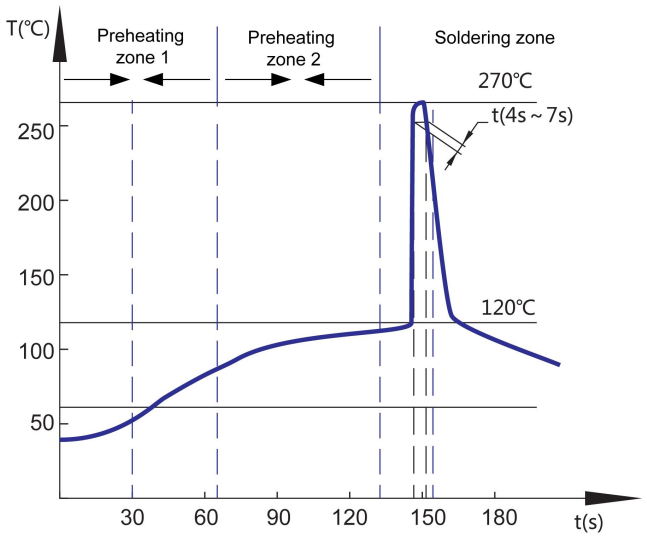
Unit: mm, Tolerance without ± 0.5mm



Technical Data

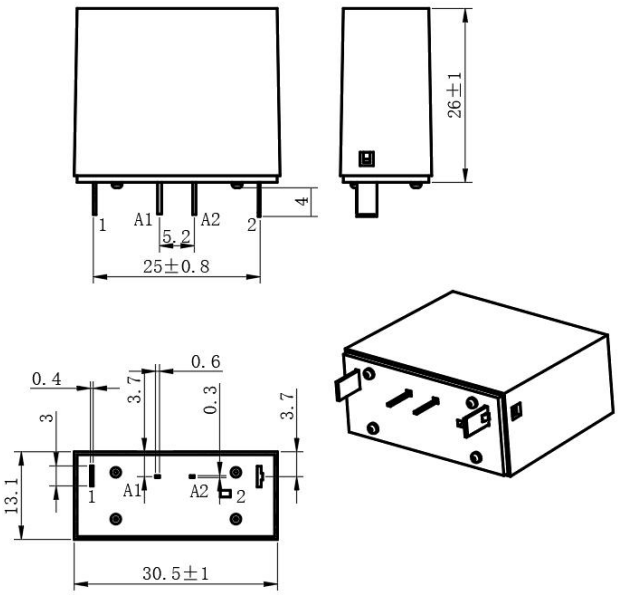
Type		PTMOVxxx/S		
		150	320	420
In Accordance With		ANSI/UL1449-5th; IEC61643-11:2012		
Thermal Disconnector (Patented)		Internal thermal disconnector &arc extinguishing		
Max. Continuous Operating Voltage (AC/DC)	Mcov	150V/200V	320/410	420/560
Nominal Varistor Voltage @1ma	Vn			
Nominal Discharge Current(8/20μs)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

Recommended Soldering Profiles:



Dimension drawing

Unit:mm, Tolerance without ± 0.5mm



Storage

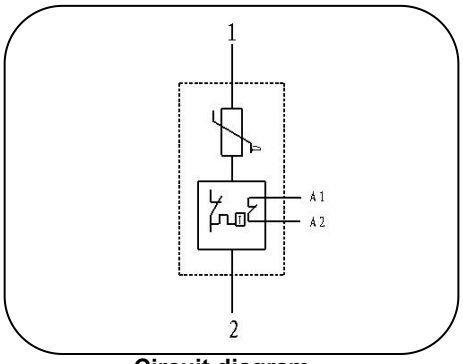
- The parts should soldered after shipment from Safesurge within 2 years.
- The parts are to be left in the original packing in order to avoid any soldering problems caused by oxidized terminals.
- Storage temperature: – 10 to 45°C. Max. relative humidity (without condensation): < 75 %.

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.

MODULAR THERMALLY PROTECTED MOV
SMTMOV

CE



Circuit diagram

The 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.

SMTMOV is size optimization and space efficiency PCB mounted SPD with nominal discharge current up to 20kA, 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

- 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 disconnector design with internal arc extinguishing device(Patented)
- Higher nominal discharge current up to 20kA (8/20μs) and discharge capacity up to 50kA 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 ± 0.5mm

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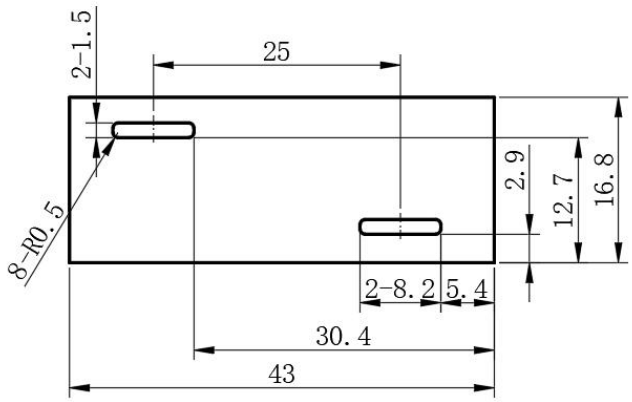
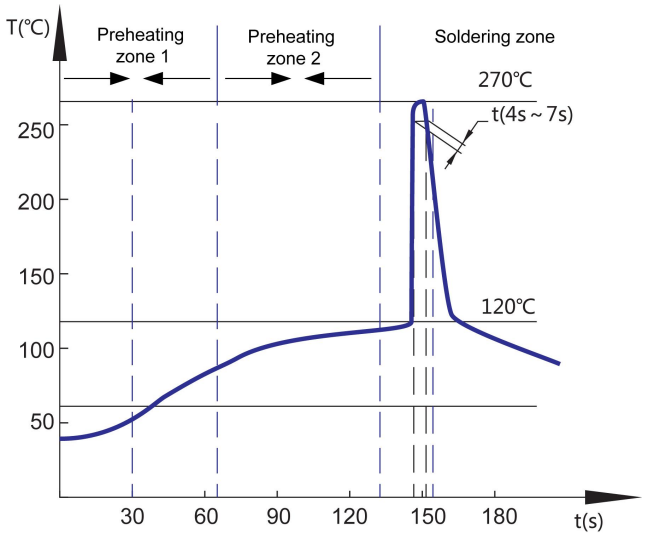


Technical Data

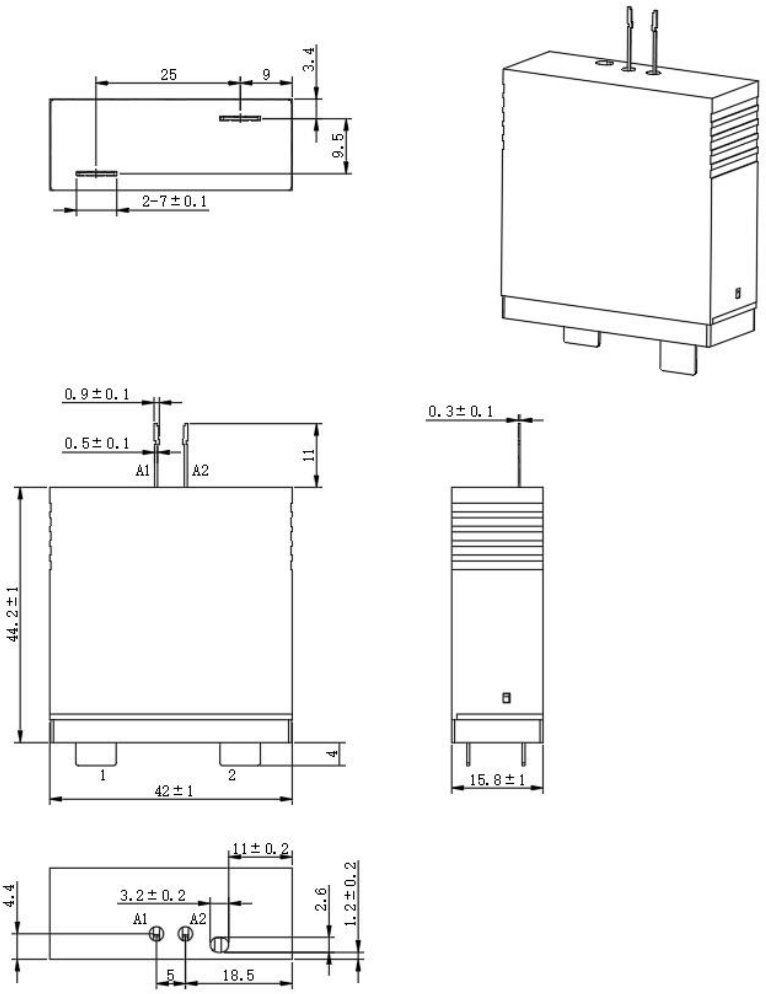
Type		SMTMOVxxx/S			
		150	275A	320	420
In Accordance With		ANSI/UL1449-5th； IEC61643-11:2012			
Thermal Disconnector (Patented)		Internal thermal disconnector &arc extinguishing			
Max. Continuous Operating Voltage (Ac/Dc)	Mcov	150V/200V	275V/350V	320/410	420/560
Nominal Varistor Voltage @1ma	Vn				
Nominal Discharge Current(8/20μs) x 15 Times	In	20kA			
Max. Discharge Current(8/20μs) x 1 Time	Imax	50kA			
Voltage Protection Level	Vpr	0.6kV	0.8kV	1.0kV	1.5kV
Surge Energy Rating: (10/1000μs)	Wtm	480J	920J	1060J	1250J
Typical Capacitance vulue @1kHz reference	C	3860pF	2750pF	2100pF	1700pF
UL Short Circuit Current Rating	SCCR	200kA			
Response Time	Ta	≤25 ns			
Operating Temperature Range		- 40ºC ~ + 85ºC			
Operating Altitude		-500~+4000m			
Enclosure Material		Thermoplastic; extinguishing degree UL94 V-0			
Protection Degree		IP20			
Insulation Resistance		≥10 MOhm			
Electric Strength		≥2500V			
Remote Alarm Contact		Switching isolation, Open: normal; Close: failure, Rating:0.1A,12Vdc (max)			
Approvals, Certifications		CE			

Recommended Soldering Profiles:



Dimension drawing

Unit:mm, Tolerance without ± 0.5mm



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