



Basic circuit diagram

PCB layout dimensions

Technical Features

Type 1 thermally protected MOV 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.

- UL recognized Type 1ca SPD (UL1449 4th), Type 2ca SPD (CSA C22.2)
- High surge current discharge capacity up to 50kA 8/20µs
- PCB mounting design, compact size to save installation space
- Quick thermal response and perfect circuit cutoff function due to special thermal disconnecter design with arc extinguishing device (Patent No.US20110170217A1).
- floating remote signaling contact (50mA 12Vdc) for fault indication
- SCCR up to 200kArms tested without external fuse or CB
- Wide operating temperature range and high reliability.

| Part No. | SMTMOV150 | SMTMOV180 | SMTMOV275 A | SMTMOV320 | SMTMOV420 | SMTMOV550 | SMTMOV690 | |
|---|--|---|----------------|-----------|-----------|-----------|-----------|-----------|
| Compliance | ANSI/UL 1449-4 ; EN/IEC 61643-11 | | | | | | | |
| Category (UL/CSA) | Type 1ca per UL 1449 4th Type 2ca per CSA C22.2 | | | | | | | |
| Technology | MOV technology, TPAE technology | | | | | | | |
| Max. continuous operating voltage (AC/DC) | MCOV | 150V/200V | 180//230V | 275V/350V | 320V/410V | 420V/560V | 550V/745V | 690V/910V |
| Nominal discharge current(8/20) | In | 20kA | | | | | | |
| Max. discharge current(8/20) | Imax | 50kA | | | 40kA | | | |
| Voltage protection level | VPR | <0.6kV | <0.6kV | <0.8kV | <1.0kV | <1.5kV | <1.5kV | <2.0kV |
| Response time | t _A | ≤25 ns | | | | | | |
| Short Circuit Current Rating per UL1449 | SCCR | 200kA | | | | | | |
| Electric Strength | | ≥2500V | | | | | | |
| Insulation Resistance | | ≥10 MOhm | | | | | | |
| Enclosure material | | thermoplastic; extinguishing degree UL94 V-0 | | | | | | |
| Operating temperature range | | Temperature Range: - 40° C ~ +85° C; Humidity: ≤95%; Altitude: ≤2000m | | | | | | |
| Disconnecter instructions | | viewed through top hole of plastic housing | | | | | | |
| Remote alarm contact | | floating contact (50mA 12Vdc) for fault indication | | | | | | |
| Failure Indication /Status | | RED- Failure, viewed through top hole of plastic housing | | | | | | |
| Mounting | | PCB | | | | | | |
| Approvals, Certifications | | UL, CE | | | | | | |

Dimension drawing

