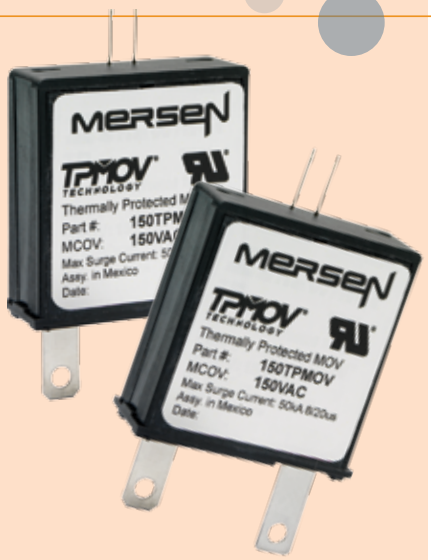
TPMOV® Technology

Thermally protected MOV (TPMOV) technology

Mersen's patented TPMOV® technology eliminates common failure modes that occur in the field with standard metal oxide varistors. Internally the TPMOV is comprised of a voltage clamping device and a disconnecting apparatus that monitors the status of the metal oxide disk making the TPMOV a fail-safe device. In the event of an overvoltage breakdown the metal oxide disk is securely disconnected from the system power by an arc shield. Upon failure the TPMOV is also equipped with a visual pin indicator as well as a normally open micro-switch providing remote indication, if applicable.

The TPMOV is rated for 50kA - 8/20µs peak surge current and is available for maximum continuous operating voltages (MCOV) from 150V to 550VAC. No additional fusing or overcurrent protective device is required when using the TPMOV as compared to most MOV's on the market today.

The TPMOV footings are similar to that of equivalent voltage ratings of traditional 25 to 40mm MOV's. The TPMOV can be utilized on existing systems that utilize traditional MOV's without costly board redesigns. See dimensional drawings on the following page.



Ratings:

Max Discharge Current
: 50kA
Volts : 150V - 550V AC
SCCR : 200kA
Nominal discharge current
: 20kA 8/20µs
Operating & storage temp
: -40°C to +85°C

Features/Benefits:

- High energy capacity
- Consistent footprint with 25–40mm MOV's
- Built-in visual/remote indication
- Wave solderable
- No additional overcurrent protection device (fuses) required

Applications:

- Surge protective devices and systems
- AC / DC distribution systems
- High voltage power supplies
- Telecommunications equipment
- Motor control systems
- Computer related products
- PLC applications
- Power transfer switches

Approvals:

- UL 1449 Third Edition Approved, File E210793
- Type 4 UL Recognized Component
- CE
- RoHS Compliant

Catalog - Ordering System

Select the MCOV and add it to the prefix of the Part Number to obtain the appropriate Catalog Number

MCOVs (xxx)	Part No	Description (TPMOV with…)	Pkg Qty	Operating Temperature
150	TPMOV	Tabs & Microswitch with Long Leads	10	-40°C to +85°C
180	xxxTPMOV-HV	Tabs & Heavy Duty Microswitch with Long Leads	10	-40°C to +85°C
270	xxxTPMOVS	Microswitch with Short Leads, no visual indicator	10	-40°C to +85°C
320	xxxTPMOVSL	Microswitch with Short Leads, no visual indicator	500	-40°C to +85°C
420	xxxTPMOVS-HV	Tabs & Heavy Duty Microswitch with Short Leads	10	-40°C to +85°C
510	xxxTPMOVSL-HV	Tabs & Heavy Duty Microswitch with Short Leads	500	-40°C to +85°C
550	xxxTPMOVST	Tabs & Microswitch with Short Leads	10	-40°C to +85°C
	xxxTPMOVSLT	Tabs & Microswitch with Short Leads	500	-40°C to +85°C

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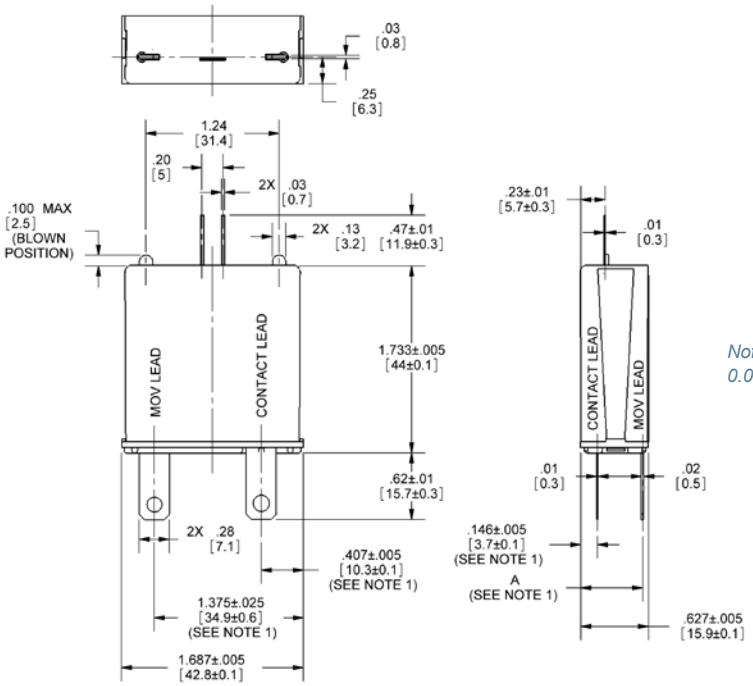
Product Performance Data

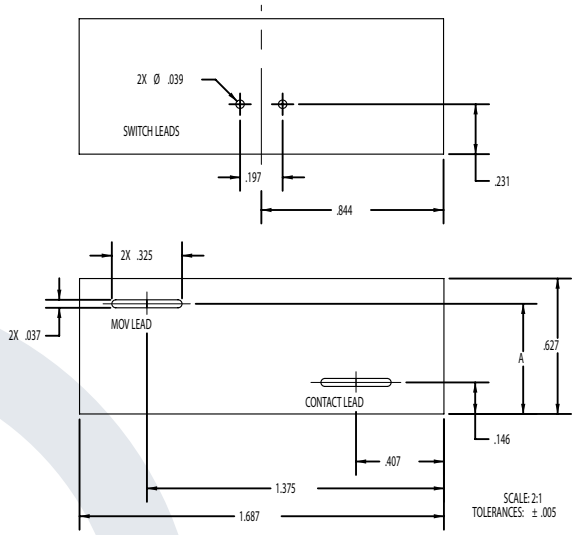
Cat. No. Prefix	Maximum Continuous Operation Voltage (VAC)	Voltage Protection Rating (VPR) (Vpk)	Nominal Discharge Current (kA)	SCCR (A)	Dimension A (inches)
*150TPMOV	180	700	20	200,000	0.485
*180TPMOV	180	800	20	200,000	0.485
*270TPMOV	270	800	20	200,000	0.495
*320TPMOV	320	1000	20	200,000	0.510
*420TPMOV	420	1500	20	200,000	0.540
*510TPMOV	510	1500	20	200,000	0.540
*550TPMOV	550	1500	20	200,000	0.545

Dimensional Drawing of TPMOV



Note 1: Dimensions measured 0.030 from housing

Board Layout Dimensions



Voltage	A Dimension
550	.545
420/510	.540
320	.510
270	.495
130/150/180	.485

For the most current product performance data visit ep-us.mersen.com and use catalog search.