

### Description

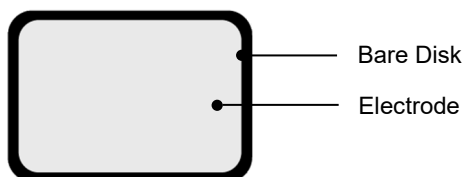


Metal Oxide Varistor (MOV) is a nonlinear resistance component with zinc oxide (ZnO) as its main constituent. The resistance of an MOV is sensitive to changes in the applied voltage. Below the threshold voltage, the MOV exhibits high resistance, allowing only a negligibly small leakage current to flow. Once the threshold voltage is exceeded, the resistance of the MOV drops sharply, enabling the conduction of a large current. This characteristic makes the MOV suitable for detecting and suppressing surge voltage and overvoltage, thereby protecting the circuit from damage caused by excessive voltage.



The Metal Oxide Varistor (MOV) finds wide application in various fields such as photovoltaics, communication, lightning protection, power supply, and power strips. It serves to suppress transient overvoltage and absorb surge energy within the circuit.

SETsafe | SETfuse offers Metal Oxide Varistors (MOV) with maximum peak current ratings ranging from 40 kA to 60 kA, and maximum continuous voltage ratings from 150VAC to 750 VAC. Safety certification includes UL, cUL, and complies with RoHS and REACH requirements.

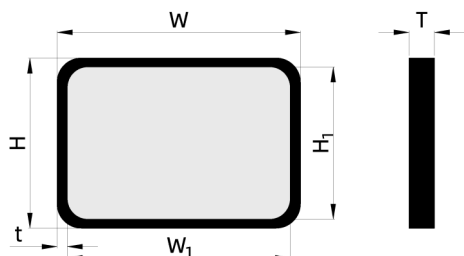
### Product Structure



### Agency Approvals

Agency	Standards	No.
	UL 1449 4 <sup>th</sup> Edition	On-going
	CSA C22.2 NO.269.5-17	On-going

### Dimensions (mm)



W	W <sub>1</sub>	H	H <sub>1</sub>	t (min.)
53.0±0.8	49.0±0.5	33.5±0.8	30.0±0.5	0.8

\* Various electrode shapes of uncoated MOV or coated MOV can be customized

## Specification

Model	Surge Level	Max. Continuous Operating Voltage		Varistor Voltage @1 mA DC		Clamping Voltage (Max.)		Max. Discharge Current (8/20 μs)		Impulse Discharge Current (10/350 μs)	Max. Energy (10/1000 μs)	Typical Capacitance (Reference) @1 kHz
		VAC	VDC	Min.	Max.	V <sub>C</sub>	I <sub>P</sub>	I <sub>n</sub>	I <sub>max</sub>	I <sub>imp</sub>	(J)	(pF)
		(V)	(V)	(V)	(V)	(V)	(A)	(kA)	(kA)	(kA)		
YMJ40R241K	T	150	200	216	264	395	400	30	60	12.5	860	11000
YMJ40R271K	T	175	225	243	297	455	400	30	60	12.5	975	10000
YMJ40R301K	T	190	250	270	330	500	400	30	60	12.5	1080	8800
YMJ40R331K	T	210	275	297	363	550	400	30	60	12.5	1170	8100
YMJ40R361K	T	230	300	324	396	595	400	30	60	12.5	1350	7400
YMJ40R391K	T	250	320	351	429	650	400	30	60	12.5	1500	6900
YMJ40R431K	T	275	350	387	473	710	400	30	60	12.5	1650	5800
YMJ40R471K	T	300	385	423	517	775	400	30	60	12.5	1800	5650
YMJ40R511K	T	320	415	459	561	845	400	30	60	12.5	1875	5200
YMJ40R561K	T	350	460	504	616	925	400	30	60	12.5	2025	4800
YMJ40R621K	T	385	505	558	682	1025	400	30	60	12.5	2250	4300
YMJ40R681K	T	420	560	612	748	1120	400	30	60	12.5	2250	3900
YMJ40R711K	T	440	585	639	781	1170	400	30	60	12.5	2325	3700
YMJ40R751K	T	460	615	675	825	1240	400	30	60	12.5	2325	3550
YMJ40R821K	T	510	670	738	902	1355	400	30	60	10.0	2325	3510
YMJ40R911K	T	550	745	819	1001	1500	400	30	60	10.0	2625	2950
YMJ40R951K	T	575	760	855	1045	1565	400	25	60	6.5	2700	2730
YMJ40R102K	T	625	825	900	1100	1650	400	25	60	6.5	2775	2650
YMJ40R112K	T	680	895	990	1210	1815	400	25	60	6.5	3150	2400

★ The I<sub>n</sub>/I<sub>max</sub>/I<sub>imp</sub> could be applied to the same varistor.

★ We have specified product for DC application, please make a note when purchasing.

**MOV Disk-Lightning Protection Type For T1 Feature & Model List Overview**

Nominal Operating Voltage $U_n$ ( V )						Page		Model		
						AC	DC			
500V	480V	YMJ34S112K	YMJ33R112K	YMJ36R112K	YMJ40R112K	750	990	Maximum Continuous Operating Voltage $U_n$ ( V )		
	415V	YMJ34S102K	YMJ33R102K	YMJ36R102K	YMJ40R102K	680	895			
	380V	YMJ34S911K	YMJ33R911K	YMJ36R911K	YMJ40R911K	625	825			
	100V	YMJ34S821K	YMJ33R821K	YMJ36R821K	YMJ40R821K	550	745			
	240V	YMJ34S751K	YMJ33R751K	YMJ36R751K	YMJ40R751K	510	670			
	100V	YMJ34S681K	YMJ33R681K	YMJ36R681K	YMJ40R681K	460	615			
	220V	YMJ34S621K	YMJ33R621K	YMJ36R621K	YMJ40R621K	420	560			
	100V	YMJ34S561K	YMJ33R561K	YMJ36R561K	YMJ40R561K	385	505			
	220V	YMJ34S511K	YMJ33R511K	YMJ36R511K	YMJ40R511K	350	460			
	100V	YMJ34S471K	YMJ33R471K	YMJ36R471K	YMJ40R471K	320	415			
	250V	YMJ34S431K	YMJ33R431K	YMJ36R431K	YMJ40R431K	300	385			
	120V	YMJ34S391K	YMJ33R391K	YMJ36R391K	YMJ40R391K	275	350			
125V	100V	YMJ34S361K	YMJ33R361K	YMJ36R361K	YMJ40R361K	250	320	Maximum Continuous Operating Voltage $U_n$ ( V )		
	120V	YMJ34S331K	YMJ33R331K	YMJ36R331K	YMJ40R331K	230	300			
	100V	YMJ34S301K	YMJ33R301K	YMJ36R301K	YMJ40R301K	210	275			
	120V	YMJ34S271K	YMJ33R271K	YMJ36R271K	YMJ40R271K	200	250			
	100V	YMJ34S241K	YMJ33R241K	YMJ36R241K	YMJ40R241K	190	225			
	120V					175	225			
	100V					150	200			
	120V					140	180			
	100V					130	170			
	120V					115	150			
	100V					95	125			
	120V					75	100			
48V	100V					60	85	Maximum Continuous Operating Voltage $U_n$ ( V )		
	120V					50	65			
	100V					40	56			
	120V					35	45			
	100V					30	38			
	120V					25	31			
	100V					20	26			
	120V					17	22			
	100V					14	18			
	120V									
	100V									
	120V									
AC	DC					40	50	60	AC	DC

Maximum Peak Current (8/20  $\mu$ s) (kA)