

Description

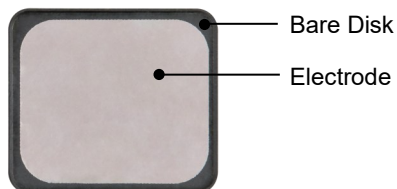
Metal Oxide Varistor (MOV) is a nonlinear resistance component with zinc oxide (ZnO) as its main constituent. The resistance of an MOV is sensitive to changes in the applied voltage. Below the threshold voltage, the MOV exhibits high resistance, allowing only a negligibly small leakage current to flow. 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 15 kA to 40 kA, and maximum continuous voltage ratings from 50VAC to 750 VAC. Safety certification includes UL, cUL, and complies with RoHS and REACH requirements.



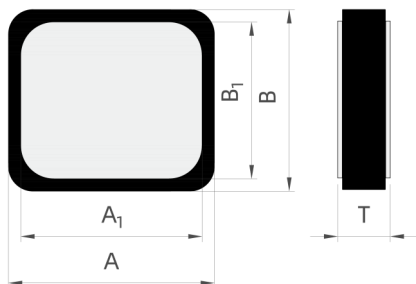
Product Structure



Agency Approvals

Agency	Standards	No.
	UL 1449 4 th Edition	E322662
	CSA C22.2 NO.269.5-17	E322662

Dimensions



Series	Symbol	Dimensions (mm)
YMJ25S	A	24.2 - 25.1
	B	21.2 - 22.2
	A ₁	22.0 ± 0.6
	B ₁	19.0 ± 0.6
	T	See Specification

Specification

Model	Max. Continuous Operating Voltage		Varistor Voltage @1 mA DC		Clamping Voltage (Max.)		Max. Discharge Current (8/20 μs)		Max. Energy (10/1000 μs)	Typical Capacitance (For reference only) @1 kHz	T	Agency Information	
	VAC	VDC	Min.	Max.	V _c	I _p	I _n	I _{max}	(J)	(pF)	(mm)	UL	cUL
	(V)	(V)	(V)	(V)	(V)	(A)	(kA)	(kA)				UL	cUL
YMJ25S820K	50	65	74	90	135	175	10	25	98	8800	0.7 - 1.0	●	●
YMJ25S101K	60	85	90	110	165	175	10	25	122	7200	0.8 - 1.2	●	●
YMJ25S121K	75	100	108	132	200	175	10	25	146	6000	1.0 - 1.5	●	●
YMJ25S151K	95	125	135	165	250	175	10	25	185	4400	1.2 - 1.9	●	●
YMJ25S181K	115	150	162	198	300	175	10	25	218	3650	0.9 - 1.2	●	●
YMJ25S201K	130	170	180	220	340	175	10	25	252	3300	1.0 - 1.3	●	●
YMJ25S221K	140	180	198	242	360	175	10	25	280	3000	1.1 - 1.4	●	●
YMJ25S241K	150	200	216	264	395	175	10	25	302	2800	1.2 - 1.6	●	●
YMJ25S271K	175	225	243	297	455	175	10	25	340	2450	1.4 - 1.7	●	●
YMJ25S301K	190	250	270	330	500	175	10	25	375	2200	1.5 - 1.9	●	●
YMJ25S331K	210	275	297	363	550	175	10	25	410	2050	1.7 - 2.1	●	●
YMJ25S361K	230	300	324	396	595	175	10	25	465	1850	1.8 - 2.3	●	●
YMJ25S391K	250	320	351	429	650	175	10	25	520	1700	2.0 - 2.5	●	●
YMJ25S431K	275	350	387	473	710	175	10	25	575	1600	2.2 - 2.7	●	●
YMJ25S471K	300	385	423	517	775	175	10	25	630	1450	2.4 - 3.0	●	●
YMJ25S511K	320	415	459	561	845	175	10	25	665	1300	2.6 - 3.2	●	●
YMJ25S561K	350	460	504	616	925	175	10	25	720	1200	2.9 - 3.5	●	●
YMJ25S621K	385	505	558	682	1025	175	10	25	790	1100	3.2 - 3.9	●	●
YMJ25S681K	420	560	612	748	1120	175	10	25	790	1000	3.5 - 4.3	●	●
YMJ25S751K	460	615	675	825	1240	175	10	25	825	900	3.9 - 4.7	●	●
YMJ25S821K	510	670	738	902	1355	175	10	25	840	800	4.3 - 5.2	●	●
YMJ25S911K	550	745	819	1001	1500	175	10	25	900	700	4.7 - 5.7	●	●
YMJ25S102K	625	825	900	1100	1650	175	10	25	950	660	5.2 - 6.3	●	●
YMJ25S112K	680	895	990	1210	1815	175	10	25	1040	615	5.7 - 6.9	●	●
YMJ25S122K	750	1000	1080	1320	1980	175	10	25	1170	555	6.3 - 7.5	●	●

● : Approved ○ : Unauthorized ● : RoHS & REACH Compliant

Metal Oxide Varistor (MOV) Feature & Model List Overview

Nominal Operating Voltage U_n (V)												Page		Model	Maximum Continuous Operating Voltage U_n (V)		
		0.5	1	1.75	2	3	3.5	6	10	20	70	AC	DC				
480V	500V							SFV10D122K(T)	SFV14D122K(T)	SFV20D122K(T)	SFV25D122K(T)	SFV53D122K	750	990	Maximum Continuous Operating Voltage U_n (V)		
								SFV10D112K(T)	SFV14D112K(T)	SFV20D112K(T)	SFV25D112K(T)	SFV53D112K	680	895			
415V							SFV10D102K(T)	SFV14D102K(T)	SFV20D102K(T)	SFV25D102K(T)	SFV53D102K	625	825				
380V							SFV10D911K(T)	SFV14D911K(T)	SFV20D911K(T)	SFV25D911K(T)	SFV53D911K	550	745				
				SFV7D821K(T)			SFV10D821K(T)	SFV14D821K(T)	SFV20D821K(T)	SFV25D821K(T)	SFV53D821K	510	670				
100V	250V						SFV10D751K(T)	SFV14D751K(T)	SFV20D751K(T)	SFV25D751K(T)	SFV53D751K	460	615				
							SFV10D681K(T)	SFV14D681K(T)	SFV20D681K(T)	SFV25D681K(T)	SFV53D681K	420	560				
240V							SFV10D621K(T)	SFV14D621K(T)	SFV20D621K(T)	SFV25D621K(T)	SFV53D621K	385	505				
							SFV10D561K(T)	SFV14D561K(T)	SFV20D561K(T)	SFV25D561K(T)	SFV53D561K	350	460				
100V	120V						SFV10D511K(T)	SFV14D511K(T)	SFV20D511K(T)	SFV25D511K(T)	SFV53D511K	320	415				
							SFV10D471K(T)	SFV14D471K(T)	SFV20D471K(T)	SFV25D471K(T)	SFV53D471K	300	385				
220V							SFV10D431K(T)	SFV14D431K(T)	SFV20D431K(T)	SFV25D431K(T)	SFV53D431K	275	350				
							SFV10D391K(T)	SFV14D391K(T)	SFV20D391K(T)	SFV25D391K(T)	SFV53D391K	250	320				
100V	125V						SFV10D361K(T)	SFV14D361K(T)	SFV20D361K(T)	SFV25D361K(T)	SFV53D361K	230	300				
							SFV10D331K(T)	SFV14D331K(T)	SFV20D331K(T)	SFV25D331K(T)	SFV53D331K	210	275				
100V	125V						SFV10D301K(T)	SFV14D301K(T)	SFV20D301K(T)	SFV25D301K(T)	SFV53D301K	190	250				
							SFV10D271K(T)	SFV14D271K(T)	SFV20D271K(T)	SFV25D271K(T)	SFV53D271K	175	225				
48V	125V						SFV10D241K(T)	SFV14D241K(T)	SFV20D241K(T)	SFV25D241K(T)	SFV53D241K	150	200				
							SFV10D221K(T)	SFV14D221K(T)	SFV20D221K(T)	SFV25D221K(T)	SFV53D221K	140	180				
24V	125V						SFV10D201K(T)	SFV14D201K(T)	SFV20D201K(T)	SFV25D201K(T)	SFV53D201K	130	170				
							SFV10D181K(T)	SFV14D181K(T)	SFV20D181K(T)	SFV25D181K(T)	SFV53D181K	115	150				
12V	125V						SFV10D151K(T)	SFV14D151K(T)	SFV20D151K(T)	SFV25D151K(T)	SFV53D151K	95	125				
							SFV10D121K(T)	SFV14D121K(T)	SFV20D121K(T)	SFV25D121K(T)	SFV53D121K	75	100				
12V	125V						SFV10D101K(T)	SFV14D101K(T)	SFV20D101K(T)	SFV25D101K(T)	SFV53D101K	60	85				
							SFV10D820K(T)	SFV14D820K(T)	SFV20D820K(T)	SFV25D820K(T)	SFV53D820K	50	65				
AC	DC						SFV7D680K(T)	SFV10D680K(T)		SFV14D680K(T)	SFV20D680K(T)		SFV25D680K(T)			40	56
							SFV7D560K(T)	SFV10D560K(T)		SFV14D560K(T)	SFV20D560K(T)		SFV25D560K(T)			35	45
AC	DC						SFV7D470K(T)	SFV10D470K(T)		SFV14D470K(T)	SFV20D470K(T)		SFV25D470K(T)			30	38
							SFV7D390K(T)	SFV10D390K(T)		SFV14D390K(T)	SFV20D390K(T)		SFV25D390K(T)			25	31
AC	DC						SFV7D330K(T)	SFV10D330K(T)		SFV14D330K(T)	SFV20D330K(T)		SFV25D330K(T)			20	26
							SFV7D270K(T)	SFV10D270K(T)		SFV14D270K(T)	SFV20D270K(T)		SFV25D270K(T)			17	22
AC	DC						SFV7D220K(T)	SFV10D220K(T)		SFV14D220K(T)	SFV20D220K(T)		SFV25D220K(T)			14	18

Metal Oxide Varistor (MOV) Feature & Model List Overview

Nominal Operating Voltage U_n (V)						Page		Model	Maximum Continuous Operating Voltage U_n (V)	
		1.75	3.5	6	10	20	AC		DC	
480V	500V	○	SFV10D122KM	SFV14D122KM	SFV20D122KM	SFV25D122KM	750	990	Maximum Continuous Operating Voltage U_n (V)	
		○	SFV10D112KM	SFV14D112KM	SFV20D112KM	SFV25D112KM	680	895		
		○	SFV10D102KM	SFV14D102KM	SFV20D102KM	SFV25D102KM	625	825		
		○	SFV10D911KM	SFV14D911KM	SFV20D911KM	SFV25D911KM	550	745		
380V	500V	SFV7D821KM	SFV10D821KM	SFV14D821KM	SFV20D821KM	SFV25D821KM	510	670	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D751KM	SFV10D751KM	SFV14D751KM	SFV20D751KM	SFV25D751KM	460	615		
100V	240V	SFV7D681KM	SFV10D681KM	SFV14D681KM	SFV20D681KM	SFV25D681KM	420	560	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D621KM	SFV10D621KM	SFV14D621KM	SFV20D621KM	SFV25D621KM	385	505		
240V	250V	SFV7D561KM	SFV10D561KM	SFV14D561KM	SFV20D561KM	SFV25D561KM	350	460	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D511KM	SFV10D511KM	SFV14D511KM	SFV20D511KM	SFV25D511KM	320	415		
100V	250V	SFV7D471KM	SFV10D471KM	SFV14D471KM	SFV20D471KM	SFV25D471KM	300	385	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D431KM	SFV10D431KM	SFV14D431KM	SFV20D431KM	SFV25D431KM	275	350		
220V	250V	SFV7D391KM	SFV10D391KM	SFV14D391KM	SFV20D391KM	SFV25D391KM	250	320	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D361KM	SFV10D361KM	SFV14D361KM	SFV20D361KM	SFV25D361KM	230	300		
100V	120V	SFV7D331KM	SFV10D331KM	SFV14D331KM	SFV20D331KM	SFV25D331KM	210	275	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D301KM	SFV10D301KM	SFV14D301KM	SFV20D301KM	SFV25D301KM	190	250		
100V	125V	SFV7D271KM	SFV10D271KM	SFV14D271KM	SFV20D271KM	SFV25D271KM	175	225	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D241KM	SFV10D241KM	SFV14D241KM	SFV20D241KM	SFV25D241KM	150	200		
100V	125V	SFV7D221KM	SFV10D221KM	SFV14D221KM	SFV20D221KM	SFV25D221KM	140	180	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D201KM	SFV10D201KM	SFV14D201KM	SFV20D201KM	SFV25D201KM	130	170		
48V	125V	SFV7D181KM	SFV10D181KM	SFV14D181KM	SFV20D181KM	SFV25D181KM	115	150	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D151KM	SFV10D151KM	SFV14D151KM	SFV20D151KM	SFV25D151KM	95	125		
48V	125V	SFV7D121KM	SFV10D121KM	SFV14D121KM	SFV20D121KM	SFV25D121KM	75	100	Maximum Continuous Operating Voltage U_n (V)	
		SFV7D101KM	SFV10D101KM	SFV14D101KM	SFV20D101KM	SFV25D101KM	60	85		
24V	125V	SFV7D820KM	SFV10D820KM	SFV14D820KM	SFV20D820KM	SFV25D820KM	50	65	Maximum Continuous Operating Voltage U_n (V)	
		○	○	SFV25D680KM	○	○	40	56		
24V	125V	○	○	SFV25D560KM	○	○	35	45	Maximum Continuous Operating Voltage U_n (V)	
		○	○	SFV25D470KM	○	○	30	38		
12V	125V	○	○	○	○	○	25	31	Maximum Continuous Operating Voltage U_n (V)	
		○	○	○	○	○	20	26		
12V	125V	○	○	○	○	○	17	22	Maximum Continuous Operating Voltage U_n (V)	
		○	○	○	○	○	14	18		
AC	DC	1.75	3.5	6	10	20	AC	DC		

Maximum Peak Current (8/20 μ s) (kA)

Metal Oxide Varistor (MOV) Feature & Model List Overview

Nominal Operating Voltage U_n (V)		Model											Page	
		Maximum Continuous Operating Voltage U_n (V)											AC	DC
480V	500V	○	○	○	○	○	○	SFV20S122K	○	SFV25S122K	SFV34S122K	750	990	
		○	○	○	○	○	○	SFV20S112K	○	SFV25S112K	SFV34S112K	680	895	
415V	500V	○	○	○	○	○	○	SFV20S102K	○	SFV25S102K	SFV34S102K	625	825	
		○	○	○	○	○	○	SFV20S911K	○	SFV25S911K	SFV34S911K	550	745	
380V	500V	○	○	SFV10S821K	○	○	SFV15S821K	○	SFV20S821K	○	SFV25S821K	SFV34S821K	510	670
		○	○	SFV10S751K	○	○	SFV15S751K	○	SFV20S751K	○	SFV25S751K	SFV34S751K	460	615
100V	240V	○	○	SFV10S681K	○	○	SFV15S681K	SFV20S681K	○	SFV25S681K	SFV34S681K	420	560	
		○	○	SFV10S621K	○	○	SFV15S621K	SFV20S621K	○	SFV25S621K	SFV34S621K	385	505	
100V	240V	○	○	SFV10S561K	○	○	SFV15S561K	SFV20S561K	○	SFV25S561K	SFV34S561K	350	460	
		○	○	SFV10S511K	○	○	SFV15S511K	SFV20S511K	○	SFV25S511K	SFV34S511K	320	415	
100V	220V	○	○	SFV10S471K	○	○	SFV15S471K	SFV20S471K	○	SFV25S471K	SFV34S471K	300	385	
		○	○	SFV10S431K	○	○	SFV15S431K	SFV20S431K	○	SFV25S431K	SFV34S431K	275	350	
100V	250V	○	○	SFV10S391K	○	○	SFV15S391K	SFV20S391K	○	SFV25S391K	SFV34S391K	250	320	
		○	○	SFV10S361K	○	○	SFV15S361K	SFV20S361K	○	SFV25S361K	SFV34S361K	230	300	
120V	250V	○	○	SFV10S331K	○	○	SFV15S331K	SFV20S331K	○	SFV25S331K	SFV34S331K	210	275	
		○	○	SFV10S301K	○	○	SFV15S301K	SFV20S301K	○	SFV25S301K	SFV34S301K	190	250	
125V	125V	○	○	SFV10S271K	○	○	SFV15S271K	SFV20S271K	○	SFV25S271K	SFV34S271K	175	225	
		○	○	SFV10S241K	○	○	SFV15S241K	SFV20S241K	○	SFV25S241K	SFV34S241K	150	200	
100V	100V	○	○	SFV10S221K	○	○	SFV15S221K	SFV20S221K	○	SFV25S221K	SFV34S221K	140	180	
		○	○	SFV10S201K	○	○	SFV15S201K	SFV20S201K	○	SFV25S201K	SFV34S201K	130	170	
48V	48V	○	○	SFV10S181K	○	○	SFV15S181K	SFV20S181K	○	SFV25S181K	SFV34S181K	115	150	
		○	○	SFV10S151K	○	○	SFV15S151K	SFV20S151K	○	SFV25S151K	SFV34S151K	95	125	
24V	24V	○	SFV10S121K	○	○	○	SFV15S121K	SFV20S121K	○	SFV25S121K	SFV34S121K	75	100	
		○	SFV10S101K	○	○	○	SFV15S101K	SFV20S101K	○	SFV25S101K	SFV34S101K	60	85	
12V	12V	○	SFV10S820K	○	○	○	SFV15S820K	SFV20S820K	○	SFV25S820K	SFV34S820K	50	65	
		SFV10S680K	SFV15S680K	SFV20S680K	○	○	SFV25S680K	○	SFV34S680K	○	○	40	56	
12V	12V	SFV10S560K	SFV15S560K	SFV20S560K	○	○	SFV25S560K	○	SFV34S560K	○	○	35	45	
		SFV10S470K	SFV15S470K	SFV20S470K	○	SFV25S470K	○	SFV34S470K	○	○	○	30	38	
12V	12V	SFV10S390K	SFV15S390K SFV20S390K	○	○	SFV25S390K	○	○	○	○	○	25	31	
		SFV10S330K	SFV15S330K SFV20S330K	○	○	SFV25S330K	○	○	○	○	○	20	26	
12V	12V	SFV10S270K	SFV15S270K SFV20S270K	○	SFV25S270K	○	○	○	○	○	○	17	22	
		SFV10S220K	SFV15S220K SFV20S220K SFV25S220K	○	○	○	○	○	○	○	○	14	18	