

# Metal Oxide Varistor

## N - Standard Series - Straight Lead

N Series/MOV

Disk Size	Varistor Voltage Range (V)		I <sub>T</sub> (mA)	Dimensions(in mm)					Diagram of Dimension*
				D Max.	H±1.0	L±2.0	P±1.0	d±0.05	
5mm	Low Voltage	18 ~ 68	0.1	7.5	11.0	25.0	5.0	0.6	
	High Voltage	82 ~ 750							
7mm	Low Voltage	18 ~ 68	1	9.0	13.0	25.0	5.0	0.6	
	High Voltage	82 ~ 820							
10mm	Low Voltage	18 ~ 68	1	12.5	16.0	25.0	5.0/7.5	0.6/0.8	
	High Voltage	82 ~ 1800							
14mm	Low Voltage	18 ~ 68	1	16.5	20.0	25.0	7.5/10.0	0.8/1.0	
	High Voltage	82 ~ 1800							
20mm	Low Voltage	18 ~ 68	1	23.0	28.0	25.0	7.5/10.0	0.8/1.0	
	High Voltage	82 ~ 1800							

\* C=Inner Kink; K=Outer Kink; Y= Y Kink available on request.

## Disk Size - 5 mm - RoHS Compliant

N Series/MOV

Part Number	Size Code (mm)	Varistor Voltage(V)		Tol.	Maximum Allowable Voltage(V)		Maximum Clamping Voltage(V)		Withstanding Surge Current (A) 8/20ms		Energy(J) 10/1000ms	Rated Wattage (W)	T Max. (mm)	A±0.8 (mm)		
		Voltage (V)	I <sub>T</sub> (mA)		VAC (Vrms)	VDC (V)	Voltage (V)	I <sub>T</sub> (A)	1 time	2 times						
MOV180MD05S25B6	D05	18	0.1	20%	11	14	40	1	100	50	0.6	0.01	4.5	1.4		
MOV220LD05S25B6	D05	22		15%	14	18	48				4.5		1.5			
MOV270KD05S25B6	D05	27		10%	17	22	60				4.7		1.5			
MOV330KD05S25B6	D05	33		10%	20	26	73				4.7		1.6			
MOV390KD05S25B6	D05	39		10%	25	31	86				4.7		1.8			
MOV470KD05S25B6	D05	47		10%	30	38	104				5.0		1.8			
MOV560KD05S25B6	D05	56		10%	35	45	123				5.0		2.0			
MOV680KD05S25B6	D05	68		10%	40	56	150				5.5		2.3			
MOV820KD05S25B6	D05	82		10%	50	65	145				2.8		400	200	3.8	1.4
MOV101KD05S25B6	D05	100		10%	60	85	175				3.5				3.9	1.4
MOV121KD05S25B6	D05	120		10%	75	100	210	4.0	4.1	1.5						
MOV151KD05S25B6	D05	150		10%	95	125	260	5.5	4.5	1.8						
MOV181KD05S25B6	D05	180		10%	115	150	320	6.5	4.1	1.6						
MOV201KD05S25B6	D05	200		10%	130	170	355	7.1	4.2	1.6						
MOV221KD05S25B6	D05	220		10%	140	180	380	7.8	4.3	1.7						
MOV241KD05S25B6	D05	240		10%	150	200	415	8.4	4.4	1.7						
MOV271KD05S25B6	D05	270		10%	175	225	475	9.9	4.6	1.9						
MOV301KD05S25B6	D05	300		10%	195	250	525	10.5	4.8	1.9						
MOV331KD05S25B6	D05	330		10%	210	275	575	11.5	4.9	1.9						
MOV361KD05S25B6	D05	360		10%	230	300	620	13.0	5.1	2.4						
MOV391KD05S25B6	D05	390	10%	250	320	675	15.0	5.3	2.6							
MOV431KD05S25B6	D05	430	10%	275	350	745	16.5	6.1	2.7							
MOV471KD05S25B6	D05	470	10%	300	385	810	17.5	6.4	2.8							
MOV511KD05S25B6	D05	510	10%	320	418	880	18.5	6.6	3.1							
MOV561KD05S25B6	D05	560	10%	350	460	940	19.5	6.9	3.4							
MOV621KD05S25B6	D05	620	10%	385	505	1050	20.5	7.2	3.7							
MOV681KD05S25B6	D05	680	10%	420	560	1150	21.5	7.5	4.0							
MOV751KD05S25B6	D05	750	10%	460	615	1290	22.5	7.9	4.3							

# Disk Size - 7 mm - RoHS Compliant

N Series/MOV

Part Number	Size Code (mm)	Varistor Voltage(V)		Tol.	Maximum Allowable Voltage(V)		Maximum Clamping Voltage(V)		Withstanding Surge Current (A) 8/20ms		Energy(J) 10/1000ms	Rated Wattage (W)	T Max. (mm)	A±0.8 (mm)
		Voltage (V)	I <sub>T</sub> (mA)		VAC (Vrms)	VDC (V)	Voltage (V)	I <sub>T</sub> (A)	1 time	2 times				
MOV180MD07S25B6	D07	18		20%	11	14	36	2.5	250	125	1.2	0.02	4.5	1.4
MOV220LD07S25B6	D07	22		15%	14	18	43				1.4		4.5	1.5
MOV270KD07S25B6	D07	27		10%	17	22	53				1.7		4.7	1.5
MOV330KD07S25B6	D07	33		10%	20	26	65				2.2		4.7	1.6
MOV390KD07S25B6	D07	39		10%	25	31	77				2.4		4.7	1.8
MOV470KD07S25B6	D07	47		10%	30	38	93				3.0		5.0	1.8
MOV560KD07S25B6	D07	56		10%	35	45	110				3.5		5.0	2.0
MOV680KD07S25B6	D07	68		10%	40	56	135				4.3		5.5	2.3
MOV820KD07S25B6	D07	82		10%	50	65	135				5.5		3.8	1.4
MOV101KD07S25B6	D07	100		10%	60	85	165				7.0		3.9	1.4
MOV121KD07S25B6	D07	120	1	10%	75	100	200	8.0	4.1	1.5				
MOV151KD07S25B6	D07	150		10%	95	125	250	11.0	4.5	1.8				
MOV181KD07S25B6	D07	180		10%	115	150	300	13.0	4.1	1.6				
MOV201KD07S25B6	D07	200		10%	130	170	340	14.3	4.2	1.6				
MOV221KD07S25B6	D07	220		10%	140	180	360	15.5	4.3	1.7				
MOV241KD07S25B6	D07	240		10%	150	200	395	16.8	4.4	1.7				
MOV271KD07S25B6	D07	270		10%	175	225	455	19.8	4.6	1.9				
MOV301KD07S25B6	D07	300		10%	195	250	505	21.0	4.8	1.9				
MOV331KD07S25B6	D07	330		10%	210	275	550	23.0	4.9	1.9				
MOV361KD07S25B6	D07	360		10%	230	300	595	26.0	5.1	2.4				
MOV391KD07S25B6	D07	390	10%	250	320	650	30.0	5.3	2.6					
MOV431KD07S25B6	D07	430	10%	275	350	710	33.0	6.1	2.7					
MOV471KD07S25B6	D07	470	10%	300	385	775	35.0	6.4	2.8					
MOV511KD07S25B6	D07	510	10%	320	418	842	37.0	6.6	3.1					
MOV561KD07S25B6	D07	560	10%	350	460	920	39.0	6.9	3.4					
MOV621KD07S25B6	D07	620	10%	385	505	1025	41.0	7.2	3.7					
MOV681KD07S25B6	D07	680	10%	420	560	1120	43.0	7.5	4.0					
MOV751KD07S25B6	D07	750	10%	460	615	1240	45.0	7.9	4.3					
MOV781KD07S25B6	D07	780	10%	485	640	1290	46.0	8.1	4.5					
MOV821KD07S25B6	D07	820	10%	510	670	1355	47.0	8.3	4.7					

# Disk Size - 10 mm - RoHS Compliant

N Series/MOV

Part Number	Size Code (mm)	Varistor Voltage(V)		Tol.	Maximum Allowable Voltage(V)		Maximum Clamping Voltage(V)		Withstanding Surge Current (A) 8/20ms		Energy(J) 10/1000ms	Rated Wattage (W)	T Max. (mm)	A±0.8 (mm)
		Voltage (V)	I <sub>T</sub> (mA)		VAC (Vrms)	VDC (V)	Voltage (V)	I <sub>T</sub> (A)	1 time	2 times				
MOV180MD10S25XX	D10	18		20%	11	14	36				2.4		4.9	1.4
MOV220LD10S25XX	D10	22		15%	14	18	43				2.7		4.9	1.5
MOV270KD10S25XX	D10	27		10%	17	22	53				3.5		5.1	1.5
MOV330KD10S25XX	D10	33		10%	20	26	65				4.4		5.1	1.6
MOV390KD10S25XX	D10	39		10%	25	31	77				4.7		5.1	1.8
MOV470KD10S25XX	D10	47		10%	30	38	93				6.0		5.5	1.8
MOV560KD10S25XX	D10	56		10%	35	45	110				7.0		5.5	2.0
MOV680KD10S25XX	D10	68		10%	40	56	135				8.5		6.0	2.3
MOV820KD10S25XX	D10	82		10%	50	65	135				11.0		4.3	1.4
MOV101KD10S25XX	D10	100		10%	60	85	165				14.0		4.4	1.4
MOV121KD10S25XX	D10	120		10%	75	100	200				16.0		4.5	1.5
MOV151KD10S25XX	D10	150		10%	95	125	250				22.0		4.9	1.8
MOV181KD10S25XX	D10	180		10%	115	150	300				26.0		4.5	1.6
MOV201KD10S25XX	D10	200		10%	130	170	340				28.5		4.6	1.6
MOV221KD10S25XX	D10	220		10%	140	180	360				31.0		4.7	1.7
MOV241KD10S25XX	D10	240		10%	150	200	395				33.5		4.8	1.9
MOV271KD10S25XX	D10	270		10%	175	225	455				39.5		5.0	2.0
MOV301KD10S25XX	D10	300	1	10%	195	250	505				42.0		5.2	2.2
MOV331KD10S25XX	D10	330		10%	210	275	550				46.0		5.3	2.2
MOV361KD10S25XX	D10	360		10%	230	300	595				52.0		5.5	2.5
MOV391KD10S25XX	D10	390		10%	250	320	650				60.0		5.7	2.8
MOV431KD10S25XX	D10	430		10%	275	350	710	25	2500	1250	66.0	0.4	6.5	3.1
MOV471KD10S25XX	D10	470		10%	300	385	775				70.0		6.8	3.2
MOV511KD10S25XX	D10	510		10%	320	418	842				74.0		7.0	3.7
MOV561KD10S25XX	D10	560		10%	350	460	920				78.0		7.3	4.0
MOV621KD10S25XX	D10	620		10%	385	505	1025				82.0		7.6	4.6
MOV681KD10S25XX	D10	680		10%	420	560	1120				86.0		8.0	5.0
MOV751KD10S25XX	D10	750		10%	460	615	1240				90.0		8.4	5.0
MOV781KD10S25XX	D10	780		10%	485	640	1290				92.0		8.6	5.2
MOV821KD10S25XX	D10	820		10%	510	670	1355				94.0		8.8	5.2
MOV911KD10S25XX	D10	910		10%	550	745	1500				102.0		9.4	6.0
MOV102KD10S25XX	D10	1000		10%	625	825	1650				112.0		9.9	6.0
MOV112KD10S25XX	D10	1100		10%	680	895	1815				124.0		11.0	6.3
MOV182KD10S25XX	D10	1800		10%	1000	1465	2970				174.0		13.0	9.8

# Disk Size - 14 mm - RoHS Compliant

N Series/MOV

Part Number	Size Code (mm)	Varistor Voltage(V)		Tol.	Maximum Allowable Voltage(V)		Maximum Clamping Voltage(V)		Withstanding Surge Current (A) 8/20ms		Energy(J) 10/1000ms	Rated Wattage (W)	T Max. (mm)	A±0.8 (mm)
		Voltage (V)	I <sub>T</sub> (mA)		VAC (Vrms)	VDC (V)	Voltage (V)	I <sub>T</sub> (A)	1 time	2 times				
MOV180MD14S25XX	D14	18		20%	11	14	36				4.7		5.0	1.5
MOV220LD14S25XX	D14	22		15%	14	18	43				5.4		5.0	1.6
MOV270KD14S25XX	D14	27		10%	17	22	53				6.9		5.2	1.7
MOV330KD14S25XX	D14	33		10%	20	26	65				8.8		5.2	1.8
MOV390KD14S25XX	D14	39		10%	25	31	77				9.4		5.2	2.0
MOV470KD14S25XX	D14	47		10%	30	38	93				12.0		5.6	2.0
MOV560KD14S25XX	D14	56		10%	35	45	110				14.0		5.6	2.2
MOV680KD14S25XX	D14	68		10%	40	56	135				17.0		6.1	2.5
MOV820KD14S25XX	D14	82		10%	50	65	135				22.0		4.4	1.6
MOV101KD14S25XX	D14	100		10%	60	85	165				28.0		4.5	1.6
MOV121KD14S25XX	D14	120		10%	75	100	200				32.0		4.6	1.7
MOV151KD14S25XX	D14	150		10%	95	125	250				44.0		5.1	2.0
MOV181KD14S25XX	D14	180		10%	115	150	300				52.0		4.7	1.8
MOV201KD14S25XX	D14	200		10%	130	170	340				57.0		4.8	1.8
MOV221KD14S25XX	D14	220		10%	140	180	360				62.0		4.9	1.9
MOV241KD14S25XX	D14	240		10%	150	200	395				67.0		5.0	2.1
MOV271KD14S25XX	D14	270		10%	175	225	455				79.0		5.2	2.1
MOV301KD14S25XX	D14	300	1	10%	195	250	505				84.0		5.4	2.3
MOV331KD14S25XX	D14	330		10%	210	275	550				92.0		5.5	2.3
MOV361KD14S25XX	D14	360		10%	230	300	595				104.0		5.7	2.7
MOV391KD14S25XX	D14	390		10%	250	320	650				120.0		5.9	2.8
MOV431KD14S25XX	D14	430		10%	275	350	710	50	4500	2500	132.0	0.6	6.7	3.1
MOV471KD14S25XX	D14	470		10%	300	385	775				140.0		7.0	3.3
MOV511KD14S25XX	D14	510		10%	320	418	842				148.0		7.2	3.7
MOV561KD14S25XX	D14	560		10%	350	460	920				156.0		7.5	4.0
MOV621KD14S25XX	D14	620		10%	385	505	1025				164.0		7.8	4.4
MOV681KD14S25XX	D14	680		10%	420	560	1120				172.0		8.2	4.7
MOV751KD14S25XX	D14	750		10%	460	615	1240				180.0		8.6	4.9
MOV781KD14S25XX	D14	780		10%	485	640	1290				184.0		8.8	5.2
MOV821KD14S25XX	D14	820		10%	510	670	1355				188.0		9.0	5.2
MOV911KD14S25XX	D14	910		10%	550	745	1500				204.0		9.6	6.0
MOV102KD14S25XX	D14	1000		10%	625	825	1650				224.0		10.0	6.2
MOV112KD14S25XX	D14	1100		10%	680	895	1815				248.0		11.0	6.7
MOV182KD14S25XX	D14	1800		10%	1000	1465	2970				348.0		13.0	10.2

# Disk Size - 20 mm - RoHS Compliant

N Series/MOV

Part Number	Size Code (mm)	Varistor Voltage(V)		Tol.	Maximum Allowable Voltage(V)		Maximum Clamping Voltage(V)		Withstanding Surge Current (A) 8/20ms		Energy(J) 10/1000ms	Rated Wattage (W)	T Max. (mm)	A±0.8 (mm)
		Voltage (V)	I <sub>T</sub> (mA)		VAC (Vrms)	VDC (V)	Voltage (V)	I <sub>T</sub> (A)	1 time	2 times				
MOV180MD20S25XX	D20	18		20%	11	14	36				7.0		5.2	1.5
MOV220MD20S25XX	D20	22		20%	14	18	43				8.0		5.3	1.6
MOV270MD20S25XX	D20	27		20%	17	22	53				10.0		5.4	1.7
MOV330MD20S25XX	D20	33		20%	20	26	65				12.0		5.4	1.8
MOV390LD20S25XX	D20	39		15%	25	31	77	20	2000	1000	14.0	0.2	5.4	2.0
MOV470LD20S25XX	D20	47		15%	30	38	93				17.0		5.6	2.0
MOV560LD20S25XX	D20	56		15%	35	45	110				20.0		5.6	2.2
MOV680LD20S25XX	D20	68		15%	40	56	135				24.0		6.1	2.5
MOV820KD20S25XX	D20	82		10%	50	65	135				44.0		4.9	1.8
MOV101KD20S25XX	D20	100		10%	60	85	165				56.0		5.1	1.8
MOV121KD20S25XX	D20	120		10%	75	100	200				64.0		5.3	1.9
MOV151KD20S25XX	D20	150		10%	95	125	250				88.0		5.6	2.2
MOV181KD20S25XX	D20	180		10%	115	150	300				104.0		5.2	2.0
MOV201KD20S25XX	D20	200		10%	130	170	340				114.0		5.3	2.0
MOV221KD20S25XX	D20	220		10%	140	180	360				124.0		5.4	2.1
MOV241KD20S25XX	D20	240		10%	150	200	395				134.0		5.5	2.3
MOV271KD20S25XX	D20	270		10%	175	225	455				158.0		5.7	2.5
MOV301KD20S25XX	D20	300	1	10%	195	250	505				168.0		5.9	2.7
MOV331KD20S25XX	D20	330		10%	210	275	550				184.0		6.0	2.7
MOV361KD20S25XX	D20	360		10%	230	300	595				208.0		6.2	2.9
MOV391KD20S25XX	D20	390		10%	250	320	650				240.0		6.4	3.0
MOV431KD20S25XX	D20	430		10%	275	350	710	100	6500	4000	264.0	1.0	7.2	3.3
MOV471KD20S25XX	D20	470		10%	300	385	775				280.0		7.5	3.5
MOV511KD20S25XX	D20	510		10%	320	418	842				296.0		7.7	3.9
MOV561KD20S25XX	D20	560		10%	350	460	920				312.0		8.0	4.2
MOV621KD20S25XX	D20	620		10%	385	505	1025				328.0		8.3	4.7
MOV681KD20S25XX	D20	680		10%	420	560	1120				344.0		8.7	5.0
MOV751KD20S25XX	D20	750		10%	460	615	1240				360.0		9.1	5.1
MOV781KD20S25XX	D20	780		10%	485	640	1290				368.0		9.3	5.4
MOV821KD20S25XX	D20	820		10%	510	670	1355				376.0		9.5	5.4
MOV911KD20S25XX	D20	910		10%	550	745	1500				408.0		10.0	6.3
MOV102KD20S25XX	D20	1000		10%	625	825	1650				448.0		11.0	6.4
MOV112KD20S25XX	D20	1100		10%	680	895	1815				496.0		11.0	6.9
MOV182KD20S25XX	D20	1800		10%	1000	1465	2970				695.0		14.0	10.4