



METAL OXIDE VARISTORS

(STANDARD SERIES)

[5MM DIAMETER](#)

[7MM DIAMETER](#)

[10MM DIAMETER](#)

[14MM DIAMETER](#)

[20MM DIAMETER](#)

[32, 34, & 40MM DIAMETER](#)

STANDARD SERIES

Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 0.1mA (V)	at 5A (V)			
				(A)							
751KD05	460	615	22.40	400	200	0.1	750(675-825)	1240			
681KD05	420	560	21.00				680(612-748)	1120			
621KD05	385	505	21.00				620(558-682)	1025			
561KD05	350	460	19.60				560(504-616)	920			
511KD05	320	415	19.60				510(459-561)	845	●		
471KD05	300	385	18.20				470(423-517)	775	●	●	●
431KD05	275	350	16.80				430(387-473)	710	●	●	●
391KD05	250	320	15.40				390(351-429)	650	●	●	●
361KD05	230	300	14.00				360(324-396)	595	●	●	●
331KD05	210	275	14.00				330(297-363)	550	●	●	●
301KD05	190	250	11.80				300(270-330)	505	●	●	●
271KD05	175	225	10.50				270(243-297)	455	●	●	●
251KD05	160	205	10.00				250(225-275)	415	●	●	●
241KD05	150	200	9.80				240(216-264)	395	●	●	●
221KD05	140	180	8.80				220(198-242)	360	●	●	●
201KD05	130	170	7.70				200(185-225)	330	●	●	●
181KD05	115	150	5.60				180(162-198)	300	●	●	●
151KD05	95	125	4.20				150(135-165)	250	●	●	●
121KD05	75	100	4.20				120(108-132)	200	●	●	●
101KD05	60	85	2.80				100(90-110)	165	●	●	●
820KD05	50	65	2.80				82(74-90)	135	●	●	●

Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 0.1mA (V)	at 1A (V)			
				(A)							
680KD05	40	56	1.80	100	50	0.01	68(61-75)	135	●	●	
560KD05	35	45	1.50				56(50-62)	110	●	●	
470KD05	30	38	1.40				47(42-52)	93	●	●	
390KD05	25	31	1.10				39(35-43)	77	●	●	
330KD05	20	26	0.80				33(30-36)	65	●	●	
270KD05	17	22	0.70				27(24-30)	53	●	●	
220KD05	14	18	0.60				22(20-24)	43	●	●	
180LD05	10	14	0.40				18(15-21)	38	●	●	
120MD05	7	9	0.30				12(9.6-14.4)	25	●	●	
8R0MD05	5	6	0.20				8(6.4-9.6)	17	●	●	

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Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 1mA (V)	at 10A (V)			
				(A)							
821KD07	510	670	72.0	1200	600	0.25	820(738-902)	1355	●	●	●
781KD07	485	640	69.0				780(702-858)	1290	●	●	●
751KD07	460	615	67.2				750(675-825)	1240	●	●	●
681KD07	420	560	62.5				680(612-748)	1120	●	●	●
621KD07	385	505	61.6				620(558-682)	1025	●	●	●
561KD07	350	460	58.0				560(504-616)	920	●	●	●
511KD07	320	415	57.0				510(459-561)	845	●	●	●
471KD07	300	385	56.0				470(423-517)	775	●	●	●
431KD07	275	350	50.4				430(387-473)	710	●	●	●
391KD07	250	320	46.2				390(351-429)	650	●	●	●
361KD07	230	300	42.0				360(324-396)	595	●	●	●
331KD07	210	275	37.8				330(297-363)	550	●	●	●
301KD07	190	250	35.0				300(270-330)	505	●	●	●
271KD07	175	225	32.2				270(243-297)	455	●	●	●
251KD07	160	205	30.0				250(225-275)	415	●	●	●
241KD07	150	200	28.0				240(216-264)	395	●	●	●
221KD07	140	180	28.0				220(198-242)	360	●	●	●
201KD07	130	170	25.2				200(185-225)	330	●	●	●
181KD07	115	150	18.2				180(162-198)	300	●	●	●
151KD07	95	125	16.8				150(135-165)	250	●	●	●
121KD07	75	100	14.0				120(108-132)	200	●	●	●
101KD07	60	85	11.6				100(90-110)	165	●	●	●
820KD07	50	65	9.8				82(74-90)	135	●	●	●

Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 0.1mA (V)	at 2.5A (V)			
				(A)							
680KD07	40	56	7.3	250	125	0.02	68(61-75)	135	●	●	
560KD07	35	45	6.2				56(50-62)	110	●	●	
470KD07	30	38	5.0				47(42-52)	93	●	●	
390KD07	25	31	4.2				39(35-43)	77	●	●	
330KD07	20	26	3.5				33(30-36)	65	●	●	
270KD07	17	22	2.8				27(24-30)	53	●	●	
220KD07	14	18	2.4				22(20-24)	43	●	●	
180LD07	10	14	2.1				18(15-21)	38	●	●	
120MD07	7	9	1.2				12(9.6-14.4)	25	●	●	
8R0MD07	5	6	0.8				8(6.4-9.6)	17	●	●	

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Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 1mA (V)	at 25A (V)			
				(A)							
112KD10	680	895	133.0	2500	1250	0.4	1100(990-1210)	1815			●
102KD10	625	825	133.0				1000(900-1100)	1650	●	●	●
911KD10	550	745	133.0				910(819-1001)	1500	●	●	●
821KD10	510	670	124.6				820(738-902)	1355	●	●	●
781KD10	485	640	124.6				780(702-858)	1290	●	●	●
751KD10	460	615	124.6				750(675-825)	1240	●	●	●
681KD10	420	560	102.2				680(612-748)	1120	●	●	●
621KD10	385	505	102.2				620(558-682)	1025	●	●	●
561KD10	350	460	99.4				560(504-616)	920	●	●	●
511KD10	320	415	99.4				510(459-561)	845	●	●	●
471KD10	300	385	99.4				470(423-517)	775	●	●	●
431KD10	275	350	88.2				430(387-473)	710	●	●	●
391KD10	250	320	81.2				390(351-429)	650	●	●	●
361KD10	230	300	74.2				360(324-396)	595	●	●	●
331KD10	210	275	68.6				330(297-363)	550	●	●	●
301KD10	190	250	63.0				300(270-330)	505	●	●	●
271KD10	175	225	57.4				270(243-297)	455	●	●	●
251KD10	160	205	52.0				250(225-275)	415	●	●	●
241KD10	150	200	50.4				240(216-264)	395	●	●	●
221KD10	140	180	46.2				220(198-242)	360	●	●	●
201KD10	130	170	42.0				200(185-225)	340	●	●	●
181KD10	115	150	30.8				180(162-198)	300	●	●	●
151KD10	95	125	25.2				150(135-165)	250	●	●	●
121KD10	75	100	21.0				120(108-132)	200	●	●	●
101KD10	60	85	18.2				100(90-110)	165	●	●	●
820KD10	50	65	16.8				82(74-90)	135	●	●	●

Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 0.1mA (V)	at 5A (V)			
				(A)							
680KD10	40	56	15.4	500	250	0.05	68(61-75)	135	●	●	
560KD10	35	45	12.9				56(50-62)	110	●	●	
470KD10	30	38	10.8				47(42-52)	93	●	●	
390KD10	25	31	9.1				39(35-43)	77	●	●	
330KD10	20	26	7.4				33(30-36)	65	●	●	
270KD10	17	22	6.0				27(24-30)	53	●	●	
220KD10	14	18	4.5				22(20-24)	43	●	●	
180LD10	10	14	2.8				18(15-21)	38	●		
120MD10	7	9	1.8				12(9.6-14.4)	25	●		

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Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 1mA (V)	at 50A (V)			
				(A)							
182KD14	1000	1465	336.0	4500	2500	0.6	1800(1620-1980)	2970			
152KD14	750	1300	266.0				1500(1350-1650)	2475			
112KD14	680	895	217.0				1100(990-1210)	1815	●		●
102KD14	625	825	217.0				1000(900-1100)	1650	●	●	●
911KD14	550	745	217.0				910(819-1001)	1500	●	●	●
821KD14	510	670	203.0				820(738-902)	1355	●	●	●
781KD14	485	640	203.0				780(702-858)	1290	●	●	●
751KD14	460	615	203.0				750(675-825)	1240	●	●	●
681KD14	420	560	168.0				680(612-748)	1120	●	●	●
621KD14	385	505	168.0				620(558-682)	1025	●	●	●
561KD14	350	460	149.8				560(504-616)	920	●	●	●
511KD14	320	415	149.8				510(459-561)	845	●	●	●
471KD14	300	385	149.8				470(423-517)	775	●	●	●
431KD14	275	350	145.6				430(387-473)	710	●	●	●
391KD14	250	320	134.4				390(351-429)	650	●	●	●
361KD14	230	300	123.2				360(324-396)	595	●	●	●
331KD14	210	275	112.0				330(297-363)	550	●	●	●
301KD14	190	250	103.2				300(270-330)	505	●	●	●
271KD14	175	225	93.8				270(243-297)	455	●	●	●
251KD14	160	205	84.0				250(225-275)	415	●	●	●
241KD14	150	200	82.6				240(216-264)	395	●	●	●
221KD14	140	180	79.8				220(198-242)	360	●	●	●
201KD14	130	170	79.8				200(185-225)	330	●	●	●
181KD14	115	150	58.8				180(162-198)	300	●	●	●
151KD14	95	125	51.8				150(135-165)	250	●	●	●
121KD14	75	100	40.6				120(108-132)	200	●	●	●
101KD14	60	85	33.6				100(90-110)	165	●	●	●
820KD14	50	65	29.4				82(74-90)	135	●	●	●

Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 0.1mA (V)	at 10A (V)			
				(A)							
680KD14	40	56	23.8	1000	500	0.1	68(61-75)	135	●	●	
560KD14	35	45	19.6				56(50-62)	110	●	●	
470KD14	30	38	16.8				47(42-52)	93	●	●	
390KD14	25	31	13.2				39(35-43)	77	●	●	
330KD14	20	26	12.3				33(30-36)	65	●	●	
270KD14	17	22	9.7				27(24-30)	53	●	●	
220KD14	14	18	7.6				22(20-24)	43	●	●	
180LD14	10	14	6.6				18(15-21)	38	●		
120MD14	7	9	4.2				12(9.6-14.4)	25	●		

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Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)	(J)	1 time	2 times	(W)	at 1mA (V)	at 100A (V)			
				(A)							
182KD20	1000	1465	560.0	6500	4000	1.0	1800(1620-1980)	2970			
152KD20	750	1300	420.0				1500(1350-1650)	2475			
112KD20	680	895	280.0				1100(990-1210)	1815			●
102KD20	625	825	280.0				1000(900-1100)	1650	●	●	●
911KD20	550	745	280.0				910(819-1001)	1500	●	●	●
821KD20	510	670	266.0				820(738-902)	1355	●	●	●
781KD20	485	640	266.0				780(702-858)	1290	●	●	●
751KD20	460	615	266.0				750(675-825)	1240	●	●	●
681KD20	420	560	224.0				680(612-748)	1120	●	●	●
621KD20	385	505	224.0				620(558-682)	1025	●	●	●
561KD20	350	460	210.0				560(504-616)	920	●	●	●
511KD20	320	415	210.0				510(459-561)	845	●	●	●
471KD20	300	385	210.0				470(423-517)	775	●	●	●
431KD20	275	350	196.0				430(387-473)	710	●	●	●
391KD20	250	320	182.0				390(351-429)	650	●	●	●
361KD20	230	300	168.0				360(324-396)	595	●	●	●
331KD20	210	275	140.0				330(297-363)	550	●	●	●
301KD20	190	250	133.0				300(270-330)	500	●	●	●
271KD20	175	225	126.0				270(243-297)	455	●	●	●
251KD20	160	205	116.0				250(225-275)	415	●	●	●
241KD20	150	200	112.0				240(216-264)	395	●	●	●
221KD20	140	180	105.0				220(198-242)	360	●	●	●
201KD20	130	170	98.0				200(185-225)	330	●	●	●
181KD20	115	150	84.0				180(162-198)	300	●	●	●
151KD20	95	125	70.0				150(135-165)	250	●	●	●
121KD20	75	100	56.0				120(108-132)	200	●	●	●
101KD20	60	85	42.0				100(90-110)	165	●	●	●
820KD20	50	65	37.8				82(74-90)	135	●	●	●

Part No.	Maximum Allowable Voltage		Energy 10/1000μS	Withstanding Surge Current		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage	UL	CSA	VDE
	ACrms (V)	DC (V)		1 time	2 times	(W)	at 0.1mA (V)	at 25A (V)			
				(A)							
680KD20	40	56	23.8	2000	1000	0.2	68(61-75)	135	●		
560KD20	35	45	19.6				56(50-62)	110	●		
470KD20	30	38	16.8				47(42-52)	93	●		
390KD20	25	31	13.2				39(35-43)	77	●		
330KD20	20	26	11.2				33(36-30)	65	●		
270KD20	17	22	9.1				27(24-30)	53	●		
220KD20	14	18	7.4				22(20-24)	43	●		
180LD20	10	14	6.1				18(15-21)	38	●		

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Part No.	Maximum Allowable voltage		Maximum Energy (J) 10/1000μS		Withstanding Surge Current 8/20 μs(KA) Time(KA) ¹		Maximum clamping voltage at Note1(V)	Varistor Voltage at 1mA (V)	UL			CSA		
	ACrms (V)	DC (V)	32D	34S /40D	32D	34S /40D			32D	34S	40D	32D	34S	40D
182K	1000	1465	1300	1500	25	30	2970	1800(1620-1980)	●		●	●		●
152K	750	1300	1000	1100			2475	1500(1350-1650)	●		●	●		●
112K	680	895	860	930			1815	1100(900-1210)	●		●	●		●
102K	625	825	780	860			1650	1000(900-1100)	●		●	●		●
911K	550	745	710	820			1500	910(819-1001)	●		●	●		●
821K	510	670	640	740			1355	820(738-902)	●		●	●		●
781K	485	640	580	680			1290	780(702-858)	●		●	●		●
751K	460	615	580	680			1240	750(675-825)	●		●	●		●
681K	420	560	530	610			1120	680(612-682)	●		●	●		●
621K	385	505	530	610			1025	620(558-682)	●		●	●		●
561K	350	460	480	560			920	560(504-616)	●		●	●		●
511K	320	415	430	560			845	510(459-561)	●		●	●		●
471K	300	386	380	510			775	470(423-517)	●		●	●		●
431K	275	350	360	470			710	430(387-473)	●		●	●		●
391K	250	320	330	440			650	390(351-429)	●		●	●		●
361K	230	300	300	410			595	360(324-396)	●		●	●		●
331K	210	275	290	380			550	330(297-363)	●		●	●		●
301K	190	250	270	350			500	300(270-330)	●		●	●		●
271K	175	225	250	320			455	270(243-297)	●		●	●		●
241K	150	200	240	300			395	240(216-264)	●		●	●		●
221K	140	180	230	280			360	220(198-242)	●		●	●		●
201K	130	170	210	260			330	200(185-225)	●		●	●		●

Note1: *32D 201K-182K max. clamping voltage testing current 200A

*34S / 40D 201K-182K max. clamping voltage testing current 300A