



Micro Commercial Components

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**182KD14JX\*  
 thru  
 180LD14JX\***

## Features

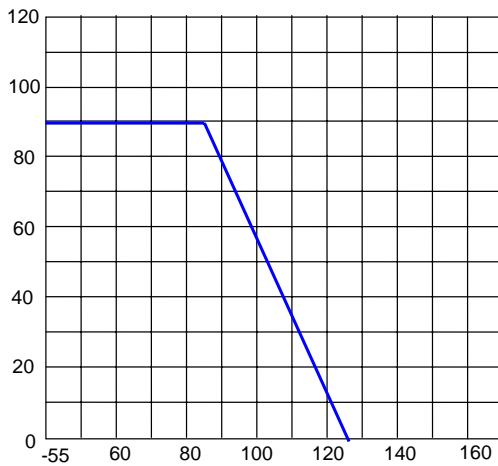
- High Surge, High Energy
- Designed to be Operated Continuously Across AC Power Lines
- No Derating Up to 85°C Ambient
- Available in Tape and Reel or Bulk Pack
- UL Recognized File # E306895(UL1449) and E306942(UL1414)

**11 to 1000 Volts  
 Varistor  
 5.2 to 510 Joule**

## Maximum Ratings

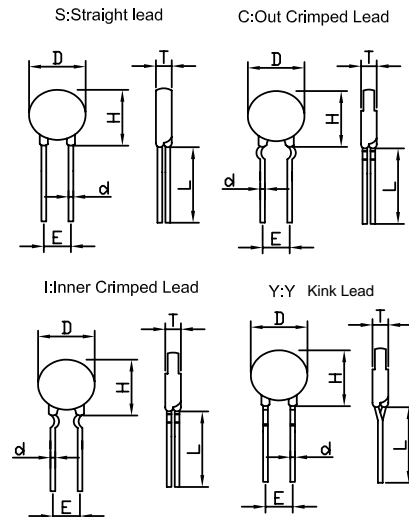
- Operating Ambient Temperature Range: -55°C to +85°C
- Storage Temperature Range: -55°C to +125°C
- Temperature Coefficient ( $\alpha V$ ) of Clamping Voltage ( $V_C$ ) at Specified Test Current: <math>0.05\%/^{\circ}\text{C}</math>
- Varistor voltage temperature coefficient:

$$\frac{V_b \text{ at } 25^{\circ}\text{C} - V_b \text{ at } 85^{\circ}\text{C}}{V_b \text{ at } 25^{\circ}\text{C}} \times \frac{1}{60} \times (100/^{\circ}\text{C})$$



AMBIENT TEMPERATURE (°C)  
 PERCENT OF RATED VALUE  
 CURRENT, ENERGY AND POWER DERATING  
 CURVE

Note : \* 'X' can be S, C, I or Y .  
 'S' denotes straight lead  
 'C' denotes out crimped lead  
 'I' denotes inner crimped lead  
 'Y' denotes kink lead



L: 20mm Min.

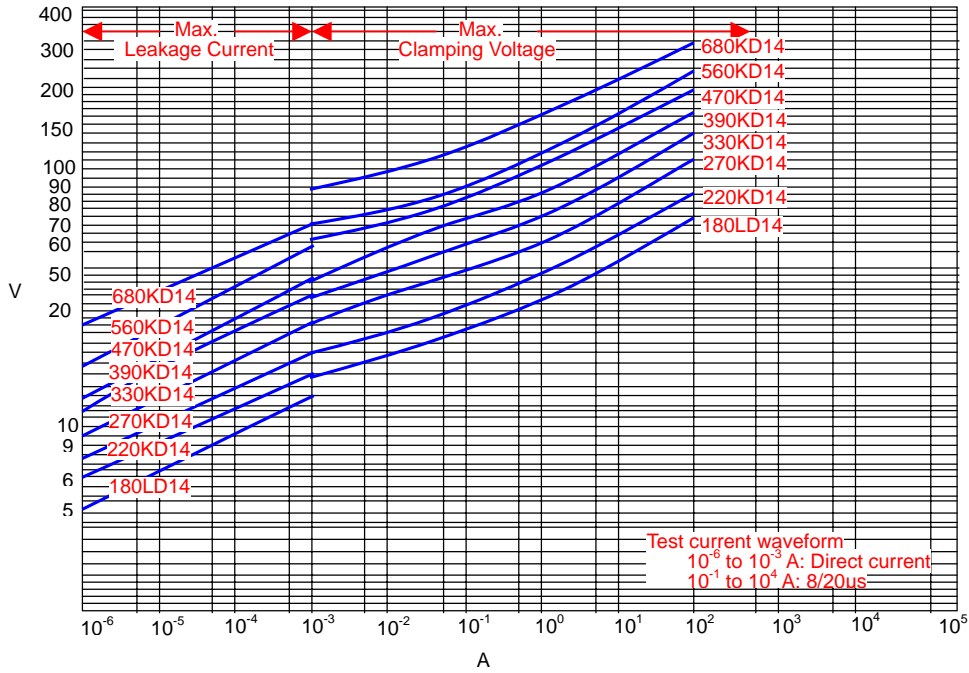
DIMENSIONS				Unit: mm	
Size	D max	H max		D±	E±
Lead	All	S	C/I/Y	All	All
05D	7.5	11	13	0.6	5
07D	9	13	15	0.6	5
10D	12.5	18	19.5	0.6	5
				0.8	7.5
14D	16.5	22	23	0.8	7.5
				1	10
20D	23	28	30	0.8	7.5
				1	10

**Electrical Characteristics @ 25°C Unless Otherwise Noted**

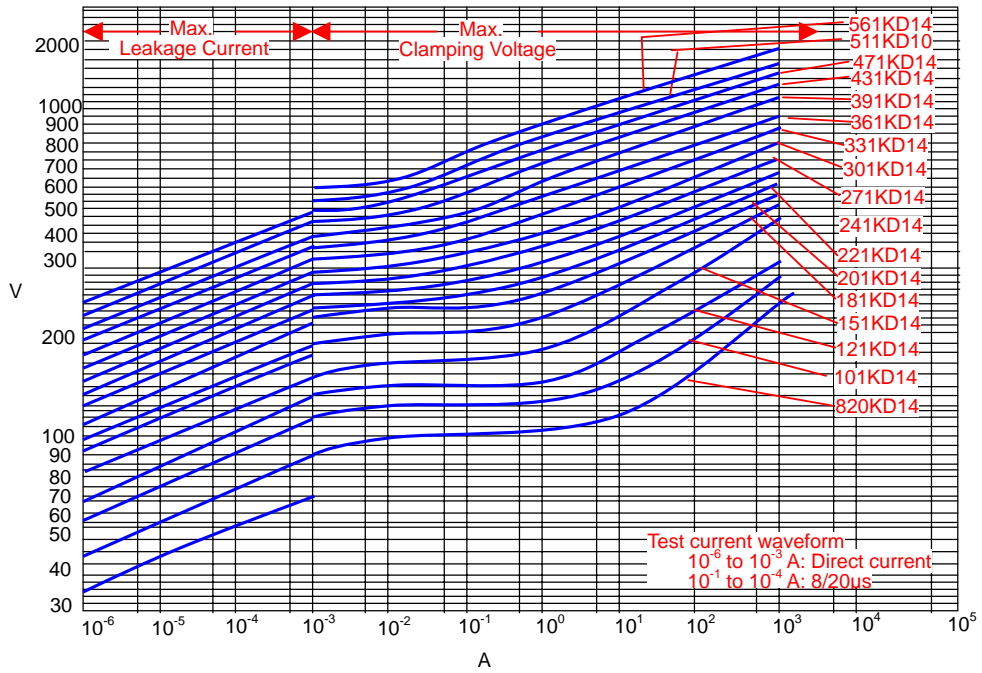
Part Number	Maximum Allowable Voltage		Maximum Energy	Withstanding Surge Current 8/20us		Rated Wattage	Varistor Voltage	Maximum Clamping Voltage
	ACrms	DC	10/1000us	1 time	2 times		V1mA	V50A
	(V)	(V)	(J)	(A)		(W)	(V)	(V)
182KD14J X	1000	1465	510	6000	4500	0.6	1800(1620-1980)	2970
112KD14J X	680	895	310				1100(990-1210)	1815
102KD14J X	625	825	283				1000(900-1100)	1650
911KD14J X	550	745	255				910(819-1001)	1500
821KD14J X	510	670	235				820(738-902)	1355
781KD14J X	485	640	233				780(702-858)	1290
751KD14J X	460	615	230				750(675-825)	1240
681KD14J X	420	560	225				680(612-748)	1120
621KD14J X	385	505	215				620(558-682)	1025
561KD14J X	350	460	205				560(504-616)	920
511KD14J X	320	418	190				510(459-561)	845
471KD14J X	300	385	175				470(423-517)	775
431KD14J X	275	350	155				430(387-473)	710
391KD14J X	250	320	140				390(351-429)	650
361KD14J X	230	300	130				360(324-396)	595
331KD14J X	210	275	115				330(297-363)	550
301KD14J X	195	250	105				300(270-330)	505
271KD14J X	175	225	99				270(243-297)	455
241KD14J X	150	200	84				240(216-264)	395
221KD14J X	140	180	78				220(198-242)	360
201KD14J X	130	170	70				200(180-220)	330
181KD14J X	115	150	65				180(162-198)	300
151KD14J X	95	125	53				150(135-165)	250
121KD14J X	75	100	44				120(108-132)	200
101KD14J X	60	85	36				100(90-110)	165
820KD14J X	50	65	28				82(74-90)	135
680KD14J X	40	56	20	68(61-75)	*135			
560KD14J X	35	45	16	56(50-62)	*110			
470KD14J X	30	38	14	47(42-52)	*93			
390KD14J X	25	31	11	39(35-43)	*77			
330KD14J X	20	26	9.5	33(30-36)	*65			
270KD14J X	17	22	7.8	27(24-30)	*53			
220KD14J X	14	18	6.3	22(20-24)	*43			
180LD14J X	11	14	5.2	18(15-21)	*38			

\*680K-180L Max. Clamping Voltage testing current 10A.

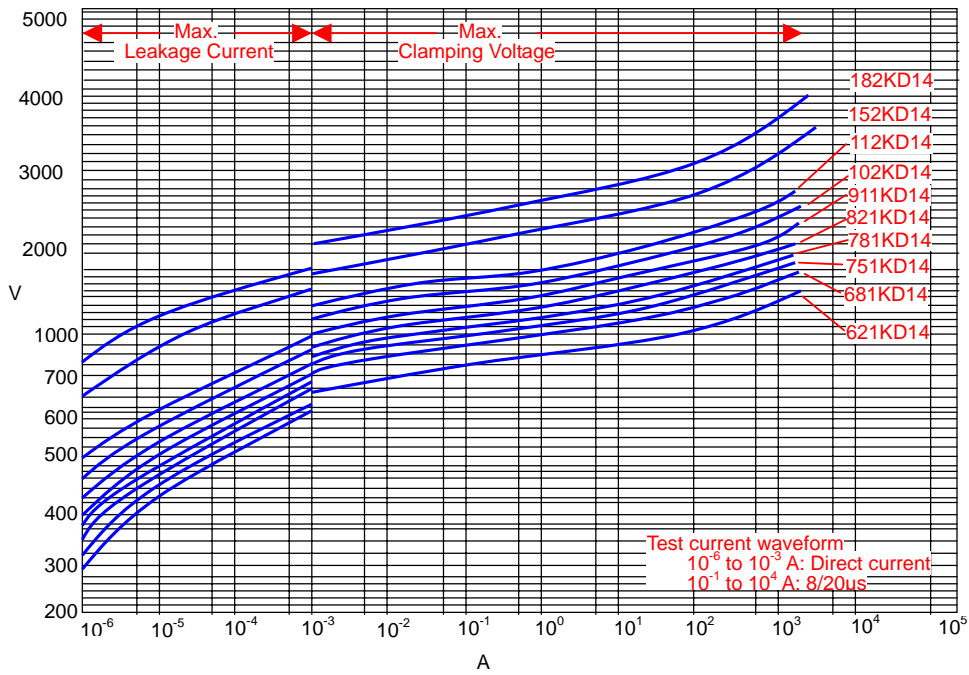
V-I Curve (180L to 680K)



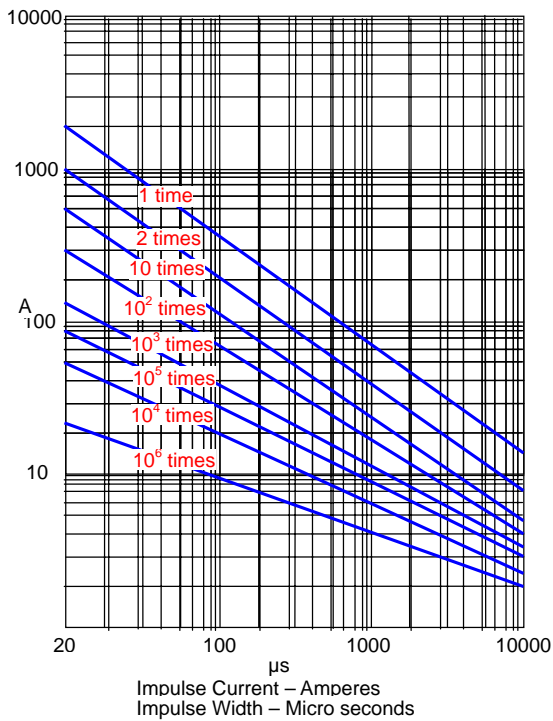
V-I Curve (820K to 561K)



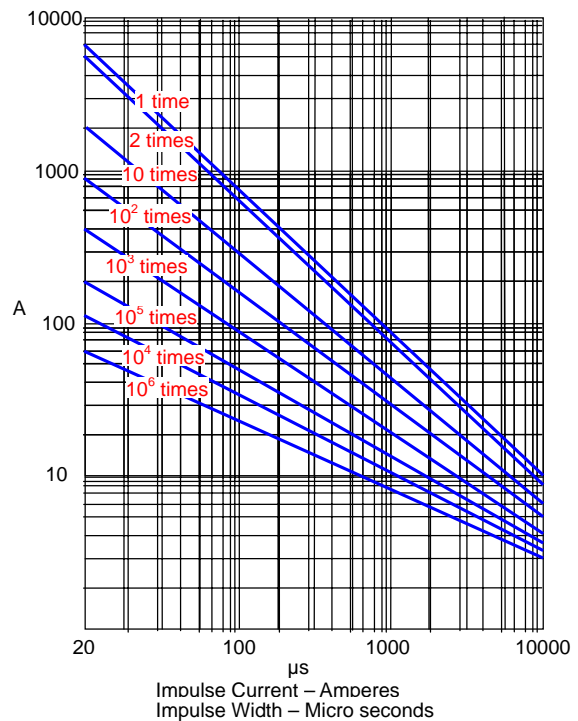
V-I Curve (621K to 182K)



V-I Surge Life Time Ratings (180L to 680K)



V-I Surge Life Time Ratings (820K to 182K)



Note 2.

T Thickness (max.)

Unit : mm

Part Code	D05	D07	D10	D14	D20
182K			12.6	12.8	13.5
112K			10.5	10.7	11.2
102K			9.9	10.1	10.7
911K			9.4	9.6	10.1
821K		8.3	8.8	9.0	9.5
781K		8.1	8.6	8.8	9.3
751K	7.9	7.9	8.4	8.6	9.1
681K	7.5	7.5	8.0	8.2	8.7
621K	7.2	7.2	7.6	7.8	8.3
561K	6.9	6.9	7.3	7.5	8.0
511K	6.6	6.6	7.0	7.2	7.7
471K	6.4	6.4	6.8	7.0	7.5
431K	6.1	6.1	6.5	6.7	7.2
391K	5.3	5.3	5.7	5.9	6.4
361K	5.1	5.1	5.5	5.7	6.2
331K	4.9	4.9	5.3	5.5	6.0
301K	4.8	4.8	5.2	5.4	5.9
271K	4.6	4.6	5.0	5.2	5.7
241K	4.4	4.4	4.8	5.0	5.5
221K	4.3	4.3	4.7	4.9	5.4
201K	4.2	4.2	4.6	4.8	5.3
181K	4.1	4.1	4.5	4.7	5.2
151K	4.5	4.5	4.9	5.1	5.6
121K	4.1	4.1	4.5	4.6	5.3
101K	3.9	3.9	4.4	4.5	5.1
820K	3.8	3.8	4.3	4.4	4.9
680K	5.5	5.5	6.0	6.1	6.1
560K	5.0	5.0	5.5	5.6	5.6
470K	5.0	5.0	5.5	5.6	5.6
390K	4.7	4.7	5.1	5.2	5.4
330K	4.7	4.7	5.1	5.2	5.4
270K	4.7	4.7	5.1	5.2	5.4
220K	4.5	4.5	4.9	5.0	5.3
180L	4.5	4.5	4.9	5.0	5.2



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