



Micro Commercial Components
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182KD14 thru 180LD14

Features

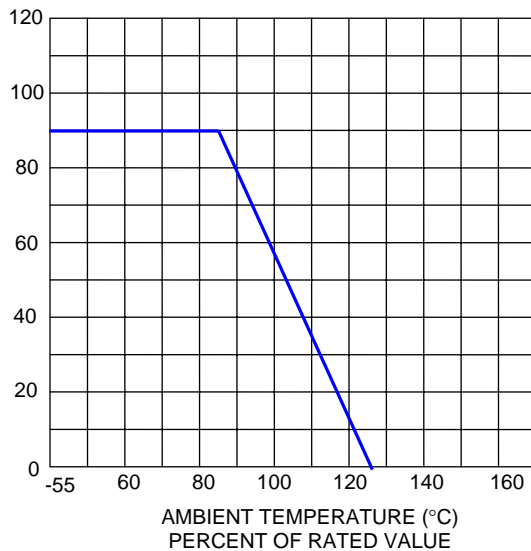
- Radial-Lead Varistor
- Designed to be Operated Continuously Across AC Power Lines
- No Derating Up to 85°C Ambient
- Available in Tape and Reel or Bulk Pack
- UL Recognized File # E171541

**10 to 1000 Volts
 Varistor
 7 to 510 Joule**

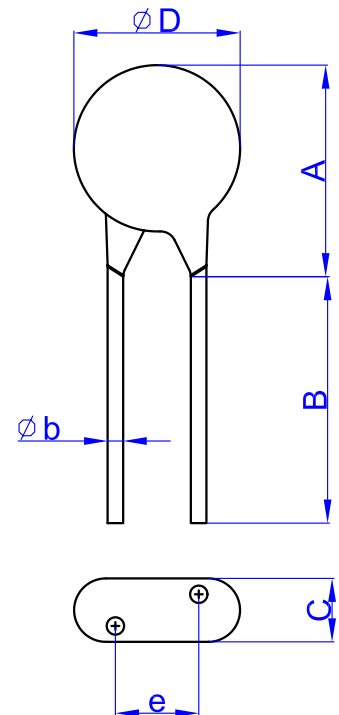
Maximum Ratings

- Operating Ambient Temperature Range: -55°C to +85°C
- Storage Temperature Range: -55°C to +125°C
- Temperature Coefficient (αV) of Clamping Voltage (V_C) at Specified Test Current: <0.05%/°C
- Varistor voltage temperature coefficient:

$$\frac{V_b \text{ at } 20^\circ\text{C} - V_b \text{ at } 70^\circ\text{C}}{V_b \text{ at } 20^\circ\text{C}} \times \frac{1}{50} \times 100(\% / ^\circ\text{C})$$



CURRENT, ENERGY AND POWER DERATING CURVE



DIM	DIMENSIONS				NOTE
	INCHES		MM		
D	---	.669	---	17.00	
A	---	.787	---	20.00	
d	.030	.034	0.75	0.85	
e	.264	.327	6.70	8.30	
B	.787	---	20.00	---	
C	See note 2				

Electrical Characteristics @ 25°C Unless Otherwise Noted

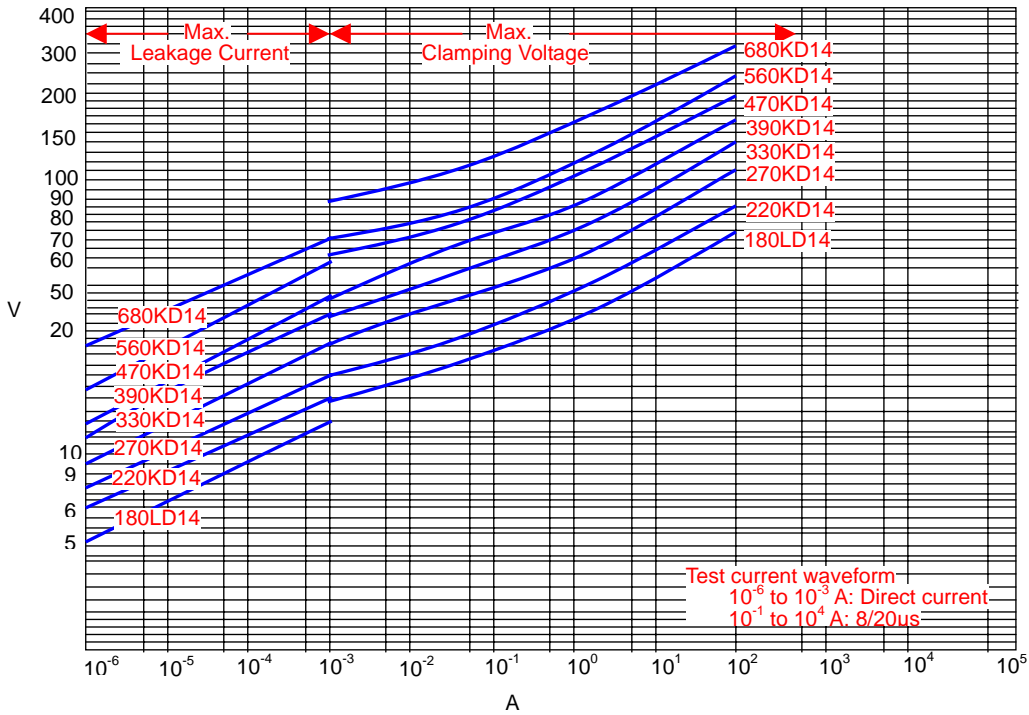
Part Number	Maximum Allowable Voltage		Maximum Energy		Withstanding Surge Current		Rated Wattage (W)	Varistor Voltage V1mA (V)	Maximum Clamping Voltage V50A (V)
	Acrms (V)	DC (V)	8/20 μ s (J)	10/1000us (J)	1time	2times			
					(A)				
182KD14	1000	1465	510	51	6000	5000	0.6	1800(1620-1980)	2970
152KD14	750	1300	420	420				1500(1350-1650)	2475
112KD14	680	895	310	310				1100(990-1210)	1815
102KD14	625	825	280	280				1000(900-1100)	1650
911KD14	550	745	255	255				910(819-1001)	1500
821KD14	510	670	235	235				820(738-902)	1355
781KD14	485	640	210	210				780(702-858)	1290
751KD14	460	615	210	210				750(675-825)	1240
681KD14	420	560	190	190				680(612-748)	1120
621KD14	385	505	190	190				620(558-682)	1025
561KD14	350	460	190	190				560(504-616)	920
511KD14	320	415	190	190				510(459-561)	845
471KD14	300	385	175	175				470(423-517)	775
431KD14	275	350	155	155				430(387-473)	710
391KD14	250	320	140	140				390(351-429)	650
361KD14	230	300	130	130				360(324-396)	595
331KD14	210	275	115	115				330(297-363)	550
301KD14	190	250	105	105				300(270-330)	505
271KD14	175	225	99	99				270(243-297)	455
241KD14	150	200	84	84				240(216-264)	395
221KD14	140	180	80	80				220(198-242)	360
201KD14	130	170	80	80				200(180-220)	330
181KD14	115	150	74	74				180(162-198)	300
151KD14	95	125	53	53				150(135-165)	250
121KD14	75	100	42	42				120(108-132)	200
101KD14	60	85	35	35				100(90-110)	165
820KD14	50	65	29	29				82(74-90)	135
680KD14	40	56	24	24				68(61-75)	*135
560KD14	35	45	20	20				56(50-62)	*110
470KD14	30	38	17	17				47(42-52)	*93
390KD14	25	31	13	13	39(35-43)	*77			
330KD14	20	26	12	12	33(30-36)	*65			
270KD14	17	22	10	10	27(24-30)	*53			
220KD14	14	18	8	8	22(20-24)	*43			
180LD14	10	14	7	7	18(15-21)	*38			

Note: The maximum current within the varistor voltage change of $\pm 10\%$ with the standard impulse current (8/20 μ sec) applied one time.

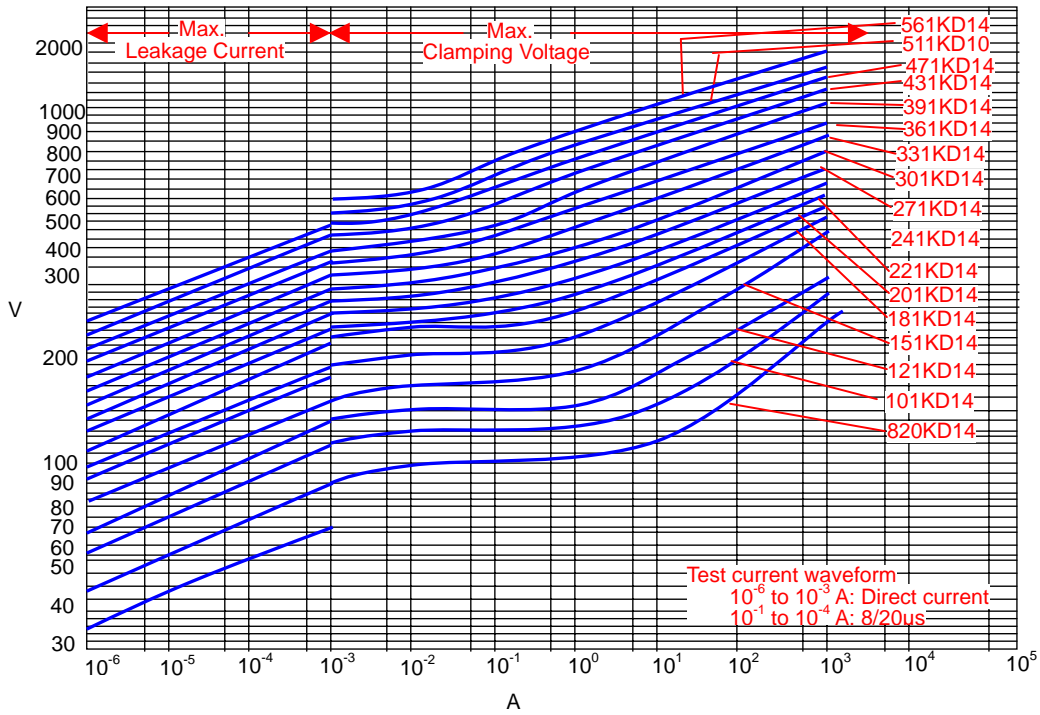
*680K-180L Max. Clamping Voltage testing current 10A.



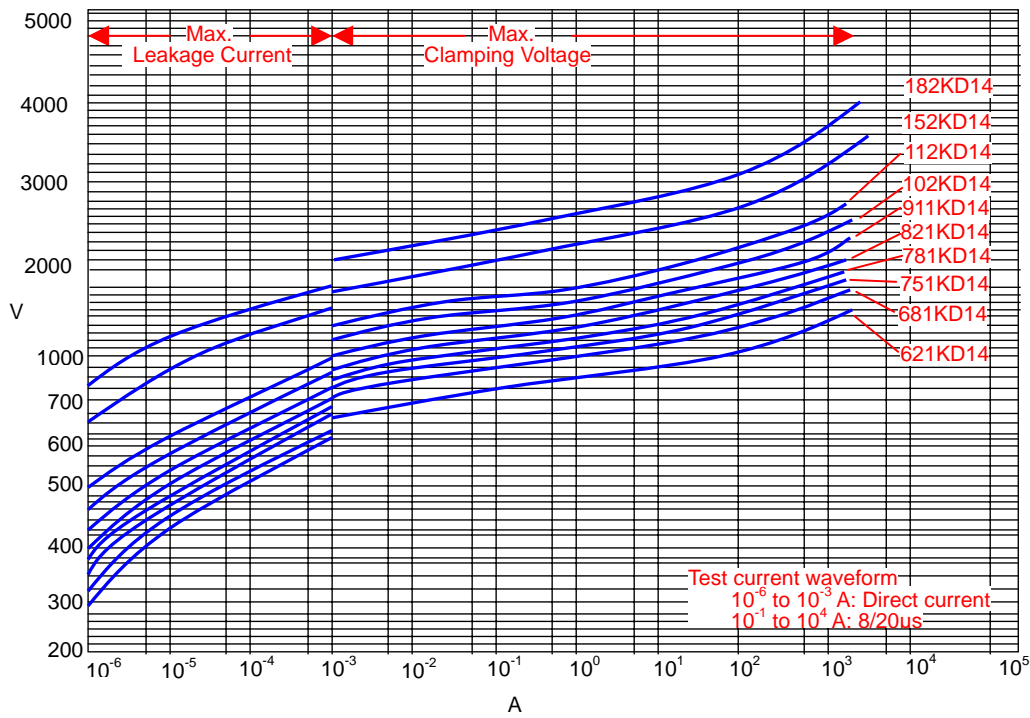
V-I Curve (180L to 680K)



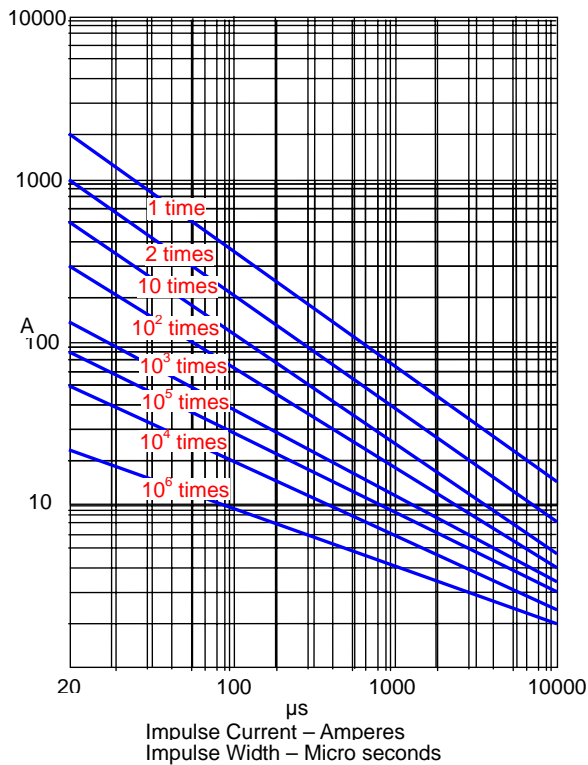
V-I Curve (820K to 561K)



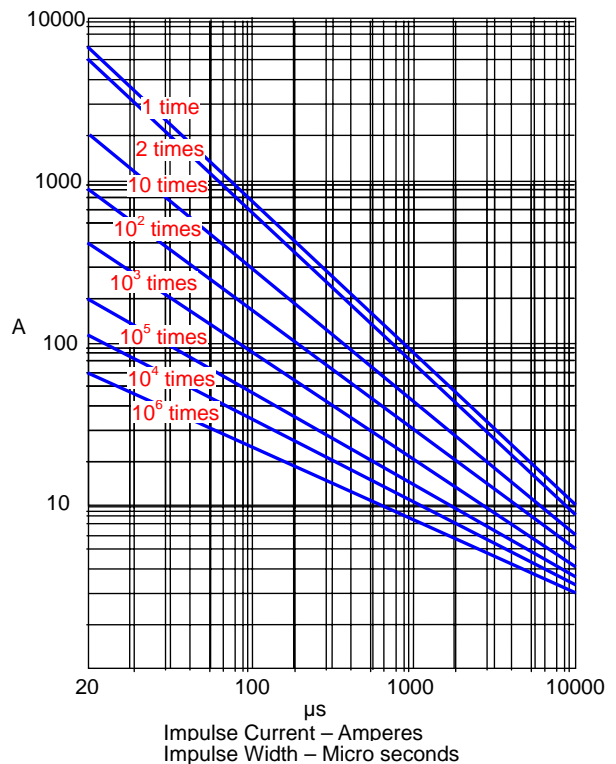
V-I Curve (621K to 182K)



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	D09	D10	D14	D18	D20
182K				12.5	12.5	12.5	15.6
152K				11	11	11	13.2
112K			7.5	8.5	8.5	8.5	10.1
102K			7.3	8.3	8.3	8.3	9.5
911K			7.1	8.1	8.1	8.1	9.0
821K		6.9	6.9	7.9	7.9	7.9	8.5
781K		6.7	6.7	7.7	7.7	7.7	8.4
751K	6.5	6.5	6.5	7.5	7.5	7.5	8.2
681K	6.4	6.4	6.4	7.1	7.1	7.1	7.8
621K	6.4	6.4	6.4	7.1	7.1	7.1	7.5
561K	6.2	6.2	6.2	6.7	6.7	6.7	7.0
511K	5.8	5.8	5.8	6.4	6.4	6.4	6.8
471K	5.6	5.6	5.6	6.1	6.1	6.1	6.6
431K	5.3	5.3	5.3	5.9	5.9	5.9	6.4
391K	5.1	5.1	5.1	5.7	5.7	5.7	6.2
361K	5.0	5.0	5.0	5.5	5.5	5.5	6.2
331K	4.8	4.8	4.8	5.3	5.3	5.3	5.9
301K	4.7	4.7	4.7	5.1	5.1	5.1	5.7
271K	4.5	4.5	4.5	5.0	5.0	5.0	5.6
241K	4.3	4.3	4.3	4.8	4.8	4.8	5.4
221K	4.2	4.2	4.2	4.7	4.7	4.7	5.3
201K	4.1	4.1	4.1	4.5	4.5	4.5	5.0
181K	4.1	4.1	4.1	4.5	4.5		5.0
151K	4.8	4.8	4.4	5.2	5.2		5.6
121K	4.5	4.5	4.1	4.9	4.9		5.3
101K	4.3	4.3	3.9	4.7	4.7		5.1
820K	4.1	4.1	3.8	4.5	4.5		4.9
680K	4.5	5.2	4.5	5.3	5.3		5.8
560K	4.5	5.0	4.4	5.1	5.1		5.7
470K	4.5	4.9	4.2	5.0	5.0		5.6
390K	4.5	4.8	4.0	4.9	4.9		5.5
330K	4.5	4.9	4.5	5.0	5.0		
270K	4.5	4.7	4.2	4.8	4.8		
220K	4.5	4.6	4.0	4.7	4.7		
180L	4.5	4.5	3.8	4.6	4.6		