Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

751KD05JX* thru 180LD05JX*

11 to 460 Volts Varistor 0.7 to 29 Joule

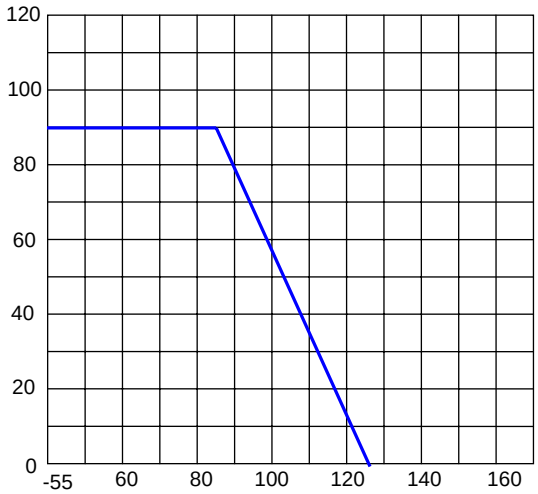
Features

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

Maximum Ratings

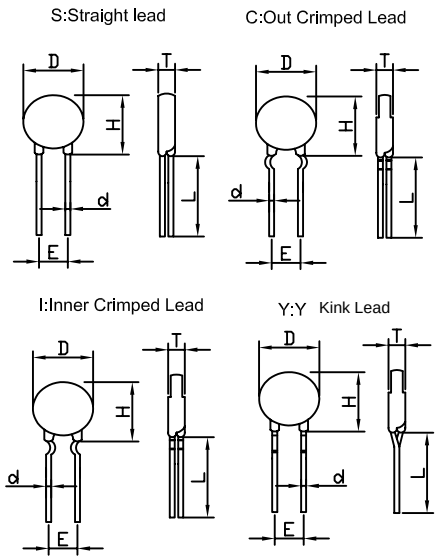
- Operating Ambient Temperature Range: -55℃ to +85℃
- Storage Temperature Range: -55℃ to +125℃
- Temperature Coefficient (αV) of Clamping Voltage (V_c) at Specified Test Current:<0.05%/℃
- Varistor voltage temperature coefficient:

$$\frac{Vb \text{ at } 25℃ - Vb \text{ at } 85℃}{Vb \text{ at } 25℃} \times \frac{1}{60} \times (100/℃)$$



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± 0.05	E± 1.0
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

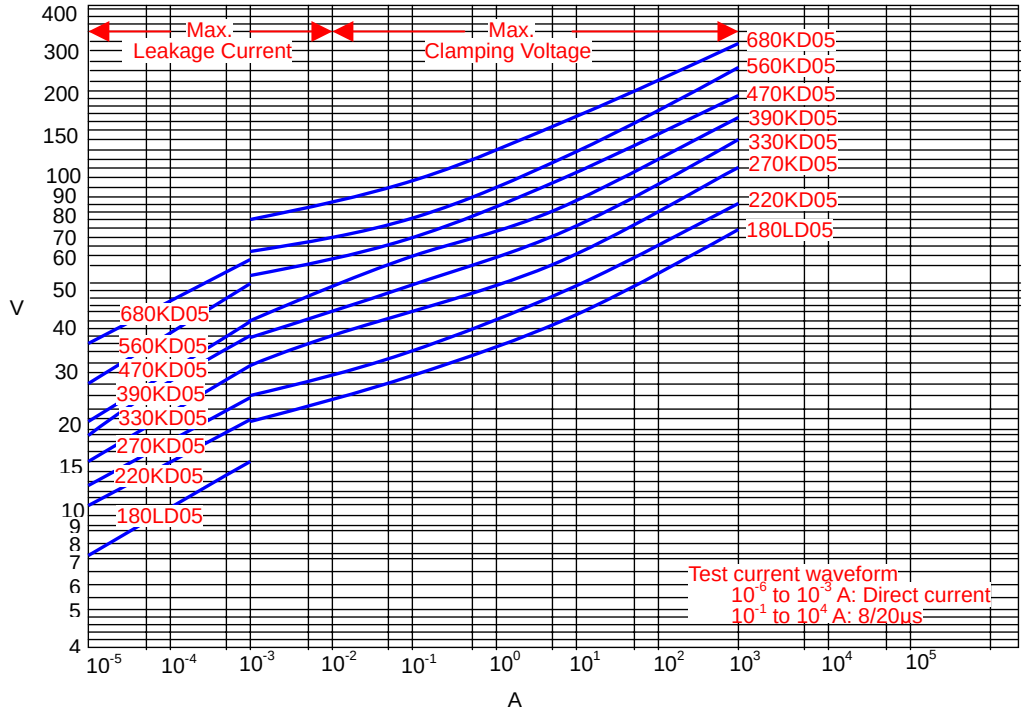
Electrical Characteristics @ 25°C Unless Otherwise Noted

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	(W)	V1mA	V5A
	(V)	(V)	(J)	(A)			(V)	(V)
751KD05JX	460	615	29.0	800	600	0.1	750(675-825)	1290
681KD05JX	420	560	28.0				680(612-748)	1150
621KD05JX	385	505	27.0				620(558-682)	1050
561KD05JX	350	460	25.0				560(504-616)	940
511KD05JX	320	418	22.0				510(459-561)	880
471KD05JX	300	385	21.0				470(423-517)	810
431KD05JX	275	350	20.0				430(387-473)	745
391KD05JX	250	320	17.0				390(351-429)	675
361KD05 JX	230	300	16.0				360(324-396)	620
331KD05J X	210	275	13.0				330(297-363)	575
301KD05JX	195	250	12.0				300(270-330)	525
271KD05JX	175	225	11.0				270(243-297)	475
241KD05JX	150	200	10.5				240(216-264)	415
221KD05JX	140	180	9.0				220(198-242)	380
201KD05JX	130	170	8.5				220(180-220)	355
181KD05JX	115	150	8.0				180(162-198)	320
151KD05JX	95	125	6.5				150(135-165)	260
121KD05JX	75	100	5.5				120(108-132)	210
101KD05JX	60	85	4.5				100(90-110)	175
820KD05JX	50	65	3.5				82(74-90)	145
680KD05JX	40	56	2.6	250	125	0.01	68(61-75)	*150
560KD05JX	35	45	2.2				56(50-62)	*123
470KD05JX	30	38	1.8				47(42-52)	*104
390KD05JX	25	31	1.5				39(35-43)	*86
330KD05JX	20	26	1.3				33(30-36)	*73
270KD05JX	17	22	1.1				27(24-30)	*60
220KD05JX	14	18	0.8				22(20-24)	*48
180LD05JX	11	14	0.7				18(15-21)	*40

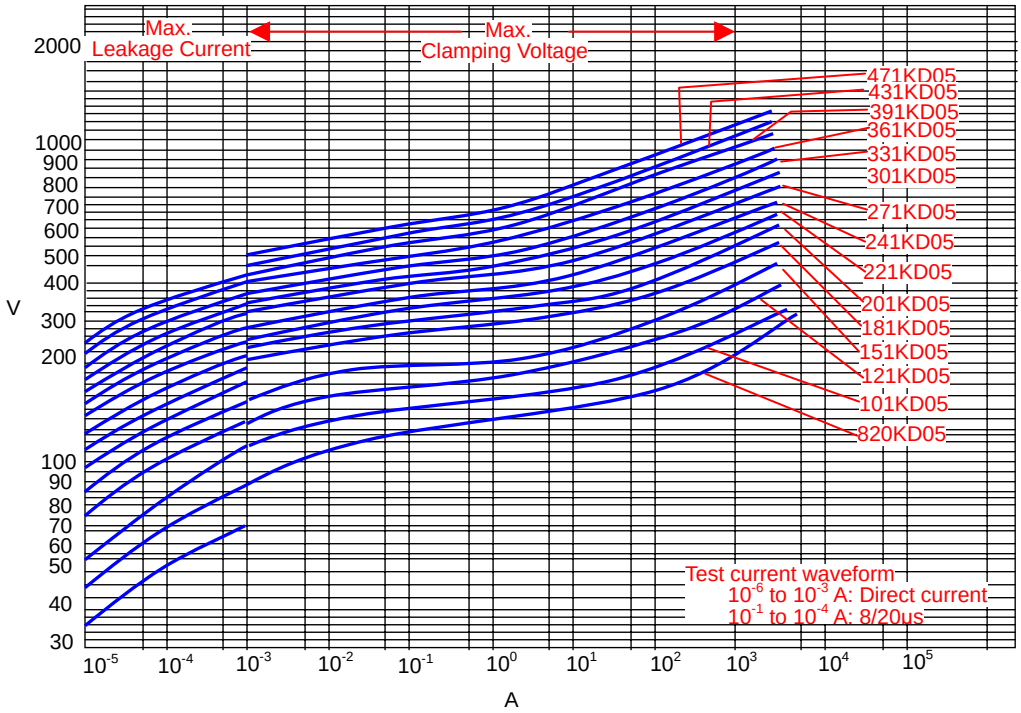
*680K-180L Max. Clamping Voltage testing current 1A

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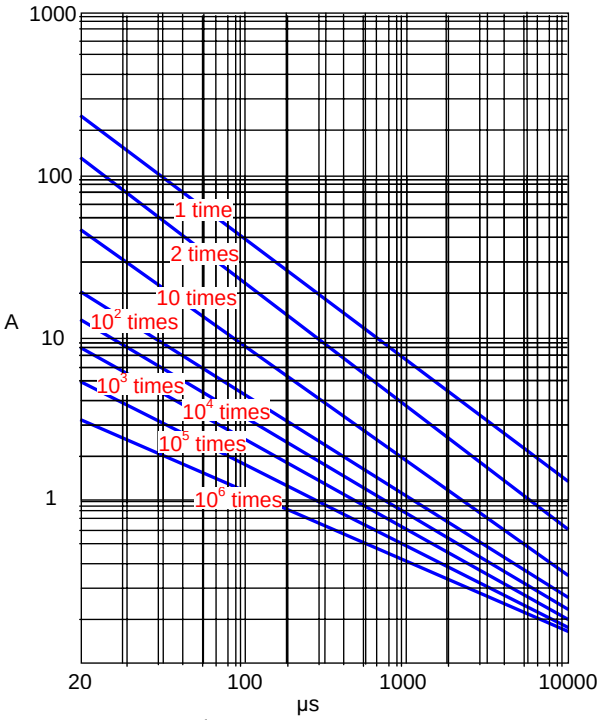
V-I Curve (180L to 680K)



V-I Curve (820K to 471K)

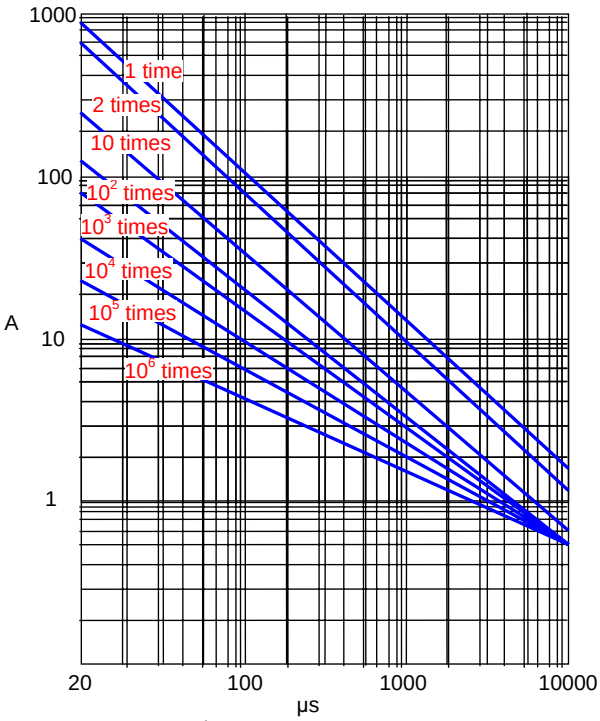


V-I Surge Life Time Ratings
(180L to 680K)

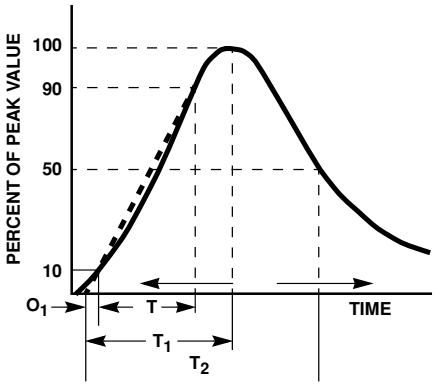


Impulse Current – Amperes
Impulse Width – Micro seconds

V-I Surge Life Time Ratings
(820K to751K)



Impulse Current – Amperes
Impulse Width – Micro seconds



O_1 = Virtual Origin of Wave
T = Time From 10% to 90% of Peak
T_1 = Virtual Front time = 1.25 • t
T_2 = Virtual Time to Half Value (Impulse Duration)
Example: For an 8/20µs Current Waveform:
8µs = T_1 = Virtual Front Time
20µs = T_2 = Virtual Time to Half Value

Note 1.

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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