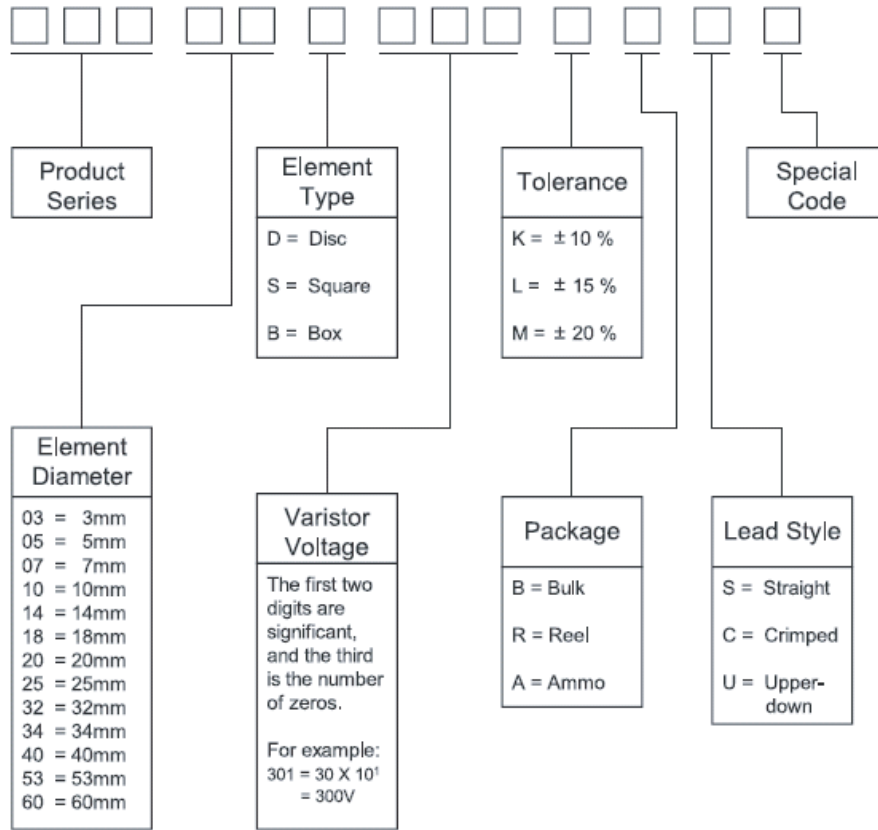
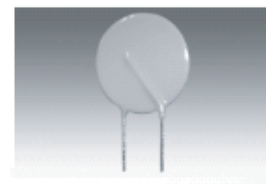


# I. ZnO Varistor

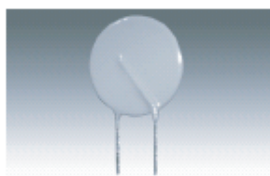
## How To Order





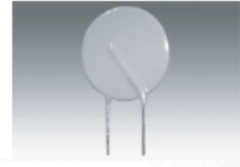
## L Type HS Series 5mm

Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
05D 180K	11	14	1.0	16	20	1	40	250	0.6	0.6	1400
05D 220K	14	18	1.0	20	24	1	48	250	0.7	0.7	1150
05D 270K	17	22	1.0	24	30	1	60	250	0.9	0.9	930
05D 330K	20	26	1.0	30	36	1	73	250	1.1	1.1	760
05D 390K	25	31	1.0	35	43	1	86	250	1.2	1.2	640
05D 470k	30	38	1.0	42	52	1	104	250	1.5	1.5	530
05D 560K	35	45	1.0	50	62	1	123	250	1.8	1.8	450
05D 680K	40	56	1.0	61	75	1	150	250	2.2	2.2	370
05D 820K	50	65	1.0	74	90	5	145	800	4.0	4.0	300
05D 101K	60	85	1.0	90	110	5	175	800	4.1	4.1	250
05D 121K	75	100	1.0	108	132	5	210	800	4.9	4.9	210
05D 151K	95	125	1.0	135	165	5	260	800	6.5	6.5	165
05D 181K	115	150	1.0	162	198	5	320	800	7.5	7.5	140
05D 201K	130	170	1.0	185	225	5	355	800	8.5	8.5	125
05D 221K	140	180	1.0	198	242	5	380	800	9.0	9.0	110
05D 241K	150	200	1.0	216	264	5	415	800	10	10	100
05D 271K	175	225	1.0	243	297	5	475	800	11	11	95
05D 301K	190	250	1.0	270	330	5	520	800	12	12	85
05D 331K	210	275	1.0	297	363	5	570	800	13	13	75
05D 361K	230	300	1.0	324	396	5	620	800	16	16	70
05D 391K	250	320	1.0	351	429	5	675	800	17	17	65
05D 431K	275	350	1.0	387	473	5	745	800	20	20	60
05D 471K	300	385	1.0	423	517	5	810	800	21	21	55
05D 511K	320	415	1.0	459	561	5	845	800	23	23	50
05D 561K	350	460	1.0	504	616	5	925	800	24	24	45



## L Type HS Series 7mm

Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
07D 180K	11	14	1.0	16	20	2.5	36	500	2.0	2.0	2800
07D 220K	14	18	1.0	20	24	2.5	43	500	2.4	2.4	2300
07D 270K	17	22	1.0	24	30	2.5	53	500	3.0	3.0	1800
07D 330K	20	26	1.0	30	36	2.5	65	500	4.0	4.0	1500
07D 390K	25	31	1.0	35	43	2.5	77	500	4.0	4.0	1300
07D 470K	30	38	1.0	42	52	2.5	93	500	5.0	5.0	1100
07D 560K	35	45	1.0	50	62	2.5	110	500	6.0	6.0	890
07D 680K	40	56	1.0	61	75	2.5	135	500	7.0	7.0	740
07D 820K	50	65	1.0	74	90	10	135	1750	10	10	600
07D 101K	60	85	1.0	90	110	10	165	1750	12	12	500
07D 121K	75	100	1.0	108	132	10	200	1750	13	13	420
07D 151K	95	125	1.0	135	165	10	250	1750	13	13	330
07D 181K	115	150	1.0	162	198	10	300	1750	16	16	280
07D 201K	130	170	1.0	185	225	10	340	1750	17	17	250
07D 221K	140	180	1.0	198	242	10	360	1750	19	19	230
07D 241K	150	200	1.0	216	264	10	395	1750	21	21	210
07D 271K	175	225	1.0	243	297	10	455	1750	24	24	185
07D 301K	190	250	1.0	270	330	10	500	1750	26	26	165
07D 331K	210	275	1.0	297	363	10	550	1750	28	28	150
07D 361K	230	300	1.0	324	396	10	595	1750	32	32	140
07D 391K	250	320	1.0	351	429	10	650	1750	35	35	130
07D 431K	275	350	1.0	387	473	10	710	1750	40	40	115
07D 471K	300	385	1.0	423	517	10	775	1750	42	42	105
07D 511K	320	415	1.0	459	561	10	845	1750	45	45	100
07D 561K	350	460	1.0	504	616	10	925	1750	49	49	90
07D 621K	385	505	1.0	558	682	10	1025	1750	55	55	80
07D 681K	420	560	1.0	612	748	10	1120	1750	60	60	75
07D 751K	460	620	1.0	675	825	10	1240	1750	65	65	70
07D 781K	480	640	1.0	702	858	10	1290	1750	65	65	70
07D 821K	510	675	1.0	738	902	10	1355	1750	70	70	60



## L Type HS Series 10mm

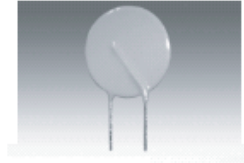
Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
10D 180K	11	14	1.0	16	20	5	36	1000	3.0	3.0	5600
10D 220K	14	18	1.0	20	24	5	43	1000	5.0	5.0	4500
10D 270K	17	22	1.0	24	30	5	53	1000	6.0	6.0	3700
10D 330K	20	26	1.0	30	36	5	65	1000	7.0	7.0	3000
10D 390K	25	31	1.0	35	43	5	77	1000	9.0	9.0	2400
10D 470K	30	38	1.0	42	52	5	93	1000	11	11	2100
10D 560K	35	45	1.0	50	62	5	110	1000	13	13	1800
10D 680K	40	56	1.0	61	75	5	135	1000	15	15	1500
10D 820K	50	65	1.0	74	90	25	135	3500	17	17	1200
10D 101K	60	85	1.0	90	110	25	165	3500	18	18	1000
10D 121K	75	100	1.0	108	132	25	200	3500	21	21	830
10D 151K	95	125	1.0	135	165	25	250	3500	25	25	670
10D 181K	115	150	1.0	162	198	25	300	3500	30	30	560
10D 201K	130	170	1.0	185	225	25	340	3500	35	35	500
10D 221K	140	180	1.0	198	242	25	360	3500	39	39	450
10D 241K	150	200	1.0	216	264	25	395	3500	42	42	420
10D 271K	175	225	1.0	243	297	25	455	3500	49	49	370
10D 301K	190	250	1.0	270	330	25	500	3500	54	54	330
10D 331K	210	275	1.0	297	363	25	550	3500	58	58	300
10D 361K	230	300	1.0	324	396	25	595	3500	65	65	280
10D 391K	250	320	1.0	351	429	25	650	3500	70	70	260
10D 431K	275	350	1.0	387	473	25	710	3500	80	80	230
10D 471K	300	385	1.0	423	517	25	775	3500	85	85	210
10D 511K	320	415	1.0	459	561	25	845	3500	90	90	200
10D 561K	350	460	1.0	504	616	25	925	3500	92	92	180
10D 621K	385	505	1.0	558	682	25	1025	3500	95	95	160
10D 681K	420	560	1.0	612	748	25	1120	3500	98	98	150
10D 751K	460	615	1.0	675	825	25	1240	3500	100	100	130
10D 781K	485	640	1.0	702	858	25	1290	3500	105	105	130
10D 821K	510	670	1.0	738	902	25	1355	3500	110	110	110
10D 911K	550	745	1.0	819	1001	25	1500	3500	130	130	130
10D 102K	625	825	1.0	900	1100	25	1650	3500	140	140	140
10D 112K	680	895	1.0	990	1210	25	1815	3500	155	155	155





L Type HS Series 14mm

Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
14D 180K	11	14	1.0	16	20	10	36	2000	7.0	7.0	11100
14D 220K	14	18	1.0	20	24	10	43	2000	8.0	8.0	9100
14D 270K	17	22	1.0	24	30	10	53	2000	10	10	7400
14D 330K	20	26	1.0	30	36	10	65	2000	12	12	6100
14D 390K	25	31	1.0	35	43	10	77	2000	13	13	5100
14D 470K	30	38	1.0	42	52	10	93	2000	17	17	4300
14D 560K	35	45	1.0	50	62	10	110	2000	20	20	3600
14D 680K	40	56	1.0	61	75	10	135	2000	24	24	2900
14D 820K	50	65	1.0	74	90	50	135	6000	27	27	2400
14D 101K	60	85	1.0	90	110	50	165	6000	33	33	2000
14D 121K	75	100	1.0	108	132	50	200	6000	40	40	1700
14D 151K	95	125	1.0	135	165	50	250	6000	53	53	1300
14D 181K	115	150	1.0	162	198	50	300	6000	60	60	1100
14D 201K	130	170	1.0	185	225	50	340	6000	70	70	1000
14D 221K	140	180	1.0	198	242	50	360	6000	78	78	900
14D 241K	150	200	1.0	216	264	50	395	6000	84	84	830
14D 271K	175	225	1.0	243	297	50	455	6000	99	99	740
14D 301K	190	250	1.0	270	330	50	500	6000	108	108	670
14D 331K	210	275	1.0	297	363	50	550	6000	115	115	610
14D 361K	230	300	1.0	324	396	50	595	6000	130	130	560
14D 391K	250	320	1.0	351	429	50	650	6000	140	140	510
14D 431K	275	350	1.0	387	473	50	710	6000	155	155	460
14D 471K	300	385	1.0	423	517	50	775	6000	175	175	430
14D 511K	320	415	1.0	459	561	50	845	6000	180	180	390
14D 561K	350	460	1.0	504	616	50	925	6000	185	185	360
14D 621K	385	505	1.0	558	682	50	1025	6000	190	190	320
14D 681K	420	560	1.0	612	748	50	1120	6000	200	200	290
14D 751K	460	615	1.0	675	825	50	1240	6000	210	210	270
14D 781K	485	640	1.0	702	858	50	1290	6000	220	220	260
14D 821K	510	670	1.0	738	902	50	1355	6000	235	235	240
14D 911K	550	745	1.0	819	1001	50	1500	6000	255	255	220
14D 102K	625	825	1.0	900	1100	50	1650	6000	280	280	200
14D 112K	680	895	1.0	990	1210	50	1815	6000	310	310	180
14D 122K	750	990	1.0	1080	1320	50	1980	6000	310	310	150
14D 182K	1100	1465	1.0	1620	1980	50	2970	5000	310	310	100



## L Type HS Series 18mm

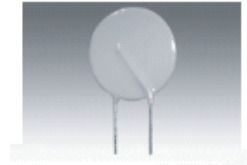
Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
18D 180K	11	14	1.0	16	20	15	36	2500	11	11	23000
18D 220K	14	18	1.0	20	24	15	43	2500	14	14	15000
18D 270K	17	22	1.0	24	30	15	53	2500	16	16	10500
18D 330K	20	26	1.0	30	36	15	65	2500	20	20	9300
18D 390K	25	31	1.0	35	43	15	77	2500	24	24	7000
18D 470K	30	38	1.0	42	52	15	93	2500	29	29	6000
18D 560K	35	45	1.0	50	62	15	110	2500	35	35	5300
18D 680K	40	56	1.0	61	75	15	135	2500	42	42	4700
18D 820K	50	65	1.0	74	90	75	135	8000	45	45	4000
18D 101K	60	85	1.0	90	110	75	165	8000	56	56	3200
18D 121K	75	100	1.0	108	132	75	200	8000	68	68	2700
18D 151K	95	125	1.0	135	165	75	250	8000	90	90	2200
18D 181K	115	150	1.0	162	198	75	300	8000	110	110	1800
18D 201K	130	170	1.0	185	225	75	340	8000	120	120	1600
18D 221K	140	180	1.0	198	242	75	360	8000	130	130	1450
18D 241K	150	200	1.0	216	264	75	395	8000	140	140	1350
18D 271K	175	225	1.0	243	297	75	455	8000	160	160	1200
18D 301K	190	250	1.0	270	330	75	500	8000	178	178	1050
18D 331K	210	275	1.0	297	363	75	550	8000	193	193	1000
18D 361K	230	300	1.0	324	396	75	595	8000	215	215	900
18D 391K	250	320	1.0	351	429	75	650	8000	234	234	800
18D 431K	275	350	1.0	387	473	75	710	8000	260	260	750
18D 471K	300	385	1.0	423	517	75	775	8000	298	298	680
18D 511K	320	415	1.0	459	561	75	845	8000	320	320	630
18D 561K	350	460	1.0	504	616	75	925	8000	325	325	580
18D 621K	385	505	1.0	558	682	75	1025	8000	335	335	530
18D 681K	420	560	1.0	612	748	75	1120	8000	345	345	500
18D 751K	460	615	1.0	675	825	75	1240	8000	355	355	430
18D 781K	485	640	1.0	702	858	75	1290	8000	375	375	410
18D 821K	510	670	1.0	738	902	75	1355	8000	390	390	400
18D 911K	550	745	1.0	819	1001	75	1500	8000	430	430	360
18D 102K	625	825	1.0	900	1100	75	1650	8000	480	480	330
18D 112K	680	895	1.0	990	1210	75	1815	8000	525	525	290



L Type HS Series 20mm

Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
20D 180K	11	14	1.0	16	20	20	36	3000	13	13	28500
20D 220K	14	18	1.0	20	24	20	43	3000	16	16	18500
20D 270K	17	22	1.0	24	30	20	53	3000	19	19	13000
20D 330K	20	26	1.0	30	36	20	65	3000	24	24	11500
20D 390K	25	31	1.0	35	43	20	77	3000	28	28	8500
20D 470K	30	38	1.0	42	52	20	93	3000	34	34	7400
20D 560K	35	45	1.0	50	62	20	110	3000	41	41	6500
20D 680K	40	56	1.0	61	75	20	135	3000	49	49	5800
20D 820K	50	65	1.0	74	90	100	135	12000	56	56	4900
20D 101K	60	85	1.0	90	110	100	165	12000	70	70	4000
20D 121K	75	100	1.0	108	132	100	200	12000	85	85	3300
20D 151K	95	125	1.0	135	165	100	250	12000	106	106	2700
20D 181K	115	150	1.0	162	198	100	300	12000	130	130	2200
20D 201K	130	170	1.0	185	225	100	340	12000	140	140	2000
20D 221K	140	180	1.0	198	242	100	360	12000	155	155	1800
20D 241K	150	200	1.0	216	264	100	395	12000	168	168	1650
20D 271K	175	225	1.0	243	297	100	455	12000	190	190	1500
20D 301K	190	250	1.0	270	330	100	500	12000	210	210	1300
20D 331K	210	275	1.0	297	363	100	550	12000	228	228	1200
20D 361K	230	300	1.0	324	396	100	595	12000	255	255	1100
20D 391K	250	320	1.0	351	429	100	650	12000	275	275	1000
20D 431K	275	350	1.0	387	473	100	710	12000	305	305	930
20D 471K	300	385	1.0	423	517	100	775	12000	350	350	850
20D 511K	320	415	1.0	459	561	100	845	12000	360	360	780
20D 561K	350	460	1.0	504	616	100	925	12000	380	380	710
20D 621K	385	505	1.0	558	682	100	1025	12000	390	390	650
20D 681K	420	560	1.0	612	748	100	1120	12000	400	400	600
20D 751K	460	615	1.0	675	825	100	1240	12000	420	420	530
20D 781K	485	640	1.0	702	858	100	1290	12000	440	440	510
20D 821K	510	670	1.0	738	902	100	1355	12000	460	460	500
20D 911K	550	745	1.0	819	1001	100	1500	12000	510	510	440
20D 102K	625	825	1.0	900	1100	100	1650	12000	565	565	400
20D 112K	680	895	1.0	990	1210	100	1815	12000	620	620	360
20D 122K	750	990	1.0	1080	1320	100	1980	12000	620	620	320
20D 182K	1100	1465	1.0	1620	1980	100	2970	10000	620	620	220





## L Type HS Series 25mm

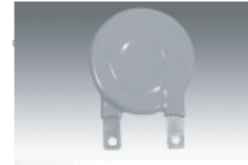
Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
25D 270K	17	22	1.0	24	30	30	53	4500	30	30	26500
25D 330K	20	26	1.0	30	36	30	65	4500	35	35	18000
25D 390K	25	31	1.0	35	43	30	77	4500	40	40	13500
25D 470K	30	38	1.0	42	52	30	93	4500	50	50	11500
25D 560K	35	45	1.0	50	62	30	110	4500	60	60	10500
25D 680K	40	56	1.0	61	75	30	135	4500	70	70	9050
25D 820K	50	65	1.0	74	90	150	135	15000	80	80	7700
25D 101K	60	85	1.0	90	110	150	165	15000	100	100	6300
25D 121K	75	100	1.0	108	132	150	200	15000	120	120	5200
25D 151K	95	125	1.0	135	165	150	250	15000	160	160	4300
25D 181K	115	150	1.0	162	198	150	300	15000	175	175	3500
25D 201K	130	170	1.0	185	225	150	340	15000	190	190	3200
25D 221K	140	180	1.0	198	242	150	360	15000	200	200	2900
25D 241K	150	200	1.0	216	264	150	395	15000	220	220	2650
25D 271K	175	225	1.0	243	297	150	455	15000	255	255	2400
25D 301K	190	250	1.0	270	330	150	500	15000	275	275	2100
25D 331K	210	275	1.0	297	363	150	550	15000	300	300	1900
25D 361K	230	300	1.0	324	396	150	595	15000	330	330	1750
25D 391K	250	320	1.0	351	429	150	650	15000	360	360	1600
25D 431K	275	350	1.0	387	473	150	710	15000	380	380	1500
25D 471K	300	385	1.0	423	517	150	775	15000	400	400	1400
25D 511K	320	415	1.0	459	561	150	845	15000	420	420	1250
25D 561K	350	460	1.0	504	616	150	925	15000	440	440	1150
25D 621K	385	505	1.0	558	682	150	1025	15000	450	450	1050
25D 681K	420	560	1.0	612	748	150	1120	15000	460	460	950
25D 751K	460	615	1.0	675	825	150	1240	15000	510	510	850
25D 781K	485	640	1.0	702	858	150	1290	15000	530	530	850
25D 821K	510	670	1.0	738	902	150	1355	15000	570	570	800
25D 911K	550	745	1.0	819	1001	150	1500	15000	620	620	700
25D 102K	625	825	1.0	900	1100	150	1650	15000	685	685	650
25D 112K	680	895	1.0	990	1210	150	1815	15000	770	770	600
25D 122K	750	990	1.0	1080	1320	150	1980	15000	770	770	550
25D 182K	1000	1280	1.0	1440	1760	150	2640	15000	970	970	450





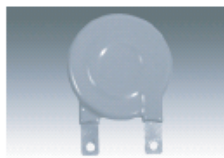
D Type HD Series 32mm

Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
32D 330K	20	26	1.0	30	36	40	65	8000	40	40	30000
32D 390K	25	31	1.0	35	43	40	77	8000	50	50	22000
32D 470K	30	38	1.0	42	52	40	93	8000	60	60	19000
32D 560K	35	45	1.0	50	62	40	110	8000	70	70	16700
32D 680K	40	56	1.0	61	75	40	135	8000	85	85	15000
32D 820K	50	65	1.0	74	90	200	135	20000	100	100	12800
32D 101K	60	85	1.0	90	110	200	165	20000	125	125	10500
32D 121K	75	100	1.0	108	132	200	200	20000	150	150	8700
32D 151K	95	125	1.0	135	165	200	250	20000	190	190	7000
32D 181K	115	150	1.0	162	198	200	300	20000	225	225	5800
32D 201K	130	170	1.0	185	225	200	340	25000	250	250	5200
32D 221K	140	180	1.0	198	242	200	360	25000	270	270	5150
32D 241K	150	200	1.0	216	264	200	395	25000	290	290	5100
32D 271K	175	225	1.0	243	297	200	455	25000	300	300	4800
32D 301K	190	250	1.0	270	330	200	500	25000	330	330	4550
32D 331K	210	275	1.0	297	363	200	550	25000	360	360	4300
32D 361K	230	300	1.0	324	396	200	595	25000	380	380	3900
32D 391K	250	320	1.0	351	429	200	650	25000	400	400	3200
32D 431K	275	350	1.0	387	473	200	710	25000	430	430	3100
32D 471K	300	385	1.0	423	517	200	775	25000	460	460	2800
32D 511K	320	415	1.0	459	561	200	845	25000	510	510	2700
32D 561K	350	460	1.0	504	616	200	925	25000	540	540	2550
32D 621K	385	505	1.0	558	682	200	1025	25000	570	570	2400
32D 681K	420	560	1.0	612	748	200	1120	25000	600	600	2200
32D 751K	460	615	1.0	675	825	200	1240	25000	620	620	2000
32D 781K	485	640	1.0	702	858	200	1290	25000	660	660	1900
32D 821K	510	670	1.0	738	902	200	1355	25000	700	700	1800
32D 911K	550	745	1.0	819	1001	200	1500	25000	750	750	1300
32D 951K	575	765	1.0	855	1045	200	1570	25000	780	780	1200
32D 102K	625	825	1.0	900	1100	200	1650	25000	810	810	1100
32D 112K	680	895	1.0	990	1210	200	1815	25000	910	910	1000
32D 122K	750	990	1.0	1080	1320	200	1980	25000	960	960	920
32D 142K	880	1140	1.0	1260	2650	200	2310	25000	1020	1020	800
32D 162K	1000	1280	1.0	1440	1760	200	2640	25000	1080	1080	700



## D Type HD Series 40mm

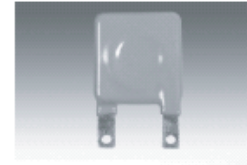
Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
40D 330K	20	26	1.0	30	36	60	65	12000	55	55	48000
40D 390K	25	31	1.0	35	43	60	77	12000	70	70	35000
40D 470K	30	38	1.0	42	52	60	93	12000	85	85	31000
40D 560K	35	45	1.0	50	62	60	110	12000	100	100	27000
40D 680K	40	56	1.0	61	75	60	135	12000	125	125	24000
40D 820K	50	65	1.0	74	90	300	135	30000	150	150	20500
40D 101K	60	85	1.0	90	110	300	165	30000	185	185	16500
40D 121K	75	100	1.0	108	132	300	200	30000	225	225	13500
40D 151K	95	125	1.0	135	165	300	250	30000	285	285	11500
40D 181K	115	150	1.0	162	198	300	300	30000	335	335	9500
40D 201K	130	170	1.0	185	225	300	340	40000	370	370	8400
40D 221K	140	180	1.0	198	242	300	360	40000	400	400	8200
40D 241K	150	200	1.0	216	264	300	395	40000	430	430	8000
40D 271K	175	225	1.0	243	297	300	455	40000	470	470	7600
40D 301K	190	250	1.0	270	330	300	500	40000	510	510	7300
40D 331K	210	275	1.0	297	363	300	550	40000	550	550	6700
40D 361K	230	300	1.0	324	396	300	595	40000	570	570	6200
40D 391K	250	320	1.0	351	429	300	650	40000	590	590	5100
40D 431K	275	350	1.0	387	473	300	710	40000	660	660	4900
40D 471K	300	385	1.0	423	517	300	775	40000	720	720	4300
40D 511K	320	415	1.0	459	561	300	845	40000	770	770	4200
40D 561K	350	460	1.0	504	616	300	925	40000	810	810	4000
40D 621K	385	505	1.0	558	682	300	1025	40000	860	860	3800
40D 681K	420	560	1.0	612	748	300	1120	40000	900	900	3500
40D 751K	460	615	1.0	675	825	300	1240	40000	940	940	3200
40D 781K	485	640	1.0	702	858	300	1290	40000	980	980	3000
40D 821K	510	670	1.0	738	902	300	1355	40000	1080	1080	2900
40D 911K	550	745	1.0	819	1001	300	1500	40000	1150	1150	2200
40D 951K	575	765	1.0	855	1045	300	1570	40000	1200	1200	2000
40D 102K	625	825	1.0	900	1100	300	1650	40000	1260	1260	1800
40D 112K	680	895	1.0	990	1210	300	1815	40000	1380	1380	1600
40D 122K	750	990	1.0	1080	1320	300	1980	40000	1380	1380	1500
40D 142K	880	1140	1.0	1260	1540	300	2310	40000	1550	1550	1300
40D 162K	1000	1280	1.0	1440	1760	300	2640	40000	1700	1700	1150



D Type HD Series 53mm

Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
53D 330K	20	26	1.0	30	36	100	65	20000	85	85	81000
53D 390K	25	31	1.0	35	43	100	77	20000	105	105	60000
53D 470K	30	38	1.0	42	52	100	93	20000	130	130	52000
53D 560K	35	45	1.0	50	62	100	110	20000	150	150	46000
53D 680K	40	56	1.0	61	75	100	135	20000	190	190	41000
53D 820K	50	65	1.0	74	90	500	135	70000	225	225	35000
53D 101K	60	85	1.0	90	110	500	165	70000	280	280	28500
53D 121K	75	100	1.0	108	132	500	200	70000	340	340	23500
53D 151K	95	125	1.0	135	165	500	250	70000	430	430	19000
53D 181K	115	150	1.0	162	198	500	300	70000	500	500	17000
53D 201K	130	170	1.0	185	225	500	340	70000	550	550	15000
53D 221K	140	180	1.0	198	242	500	360	70000	600	600	13750
53D 241K	150	200	1.0	216	264	500	395	70000	650	650	12500
53D 271K	175	225	1.0	243	297	500	455	70000	700	700	11000
53D 301K	190	250	1.0	270	330	500	500	70000	765	765	10000
53D 331K	210	275	1.0	297	363	500	550	70000	825	825	9000
53D 361K	230	300	1.0	324	396	500	595	70000	850	850	8500
53D 391K	250	320	1.0	351	429	500	650	70000	885	885	7500
53D 431K	275	350	1.0	387	473	500	710	70000	990	990	7000
53D 471K	300	385	1.0	423	517	500	775	70000	1080	1080	6500
53D 511K	320	415	1.0	459	561	500	845	70000	1150	1150	6000
53D 561K	350	460	1.0	504	616	500	925	70000	1200	1200	5500
53D 621K	385	505	1.0	558	682	500	1025	70000	1300	1300	5000
53D 681K	420	560	1.0	612	748	500	1120	70000	1350	1350	4500
53D 751K	460	615	1.0	675	825	500	1240	70000	1400	1400	4000
53D 781K	485	640	1.0	702	858	500	1290	70000	1450	1450	3900
53D 821K	510	670	1.0	738	902	500	1355	70000	1600	1600	3700
53D 911K	550	745	1.0	819	1001	500	1500	70000	1700	1700	3300
53D 951K	575	765	1.0	855	1045	500	1570	70000	1800	1800	3200
53D 102K	625	825	1.0	900	1100	500	1650	70000	1890	1890	3000
53D 112K	680	895	1.0	990	1210	500	1815	70000	2050	2050	2700
53D 122K	750	990	1.0	1080	1320	500	1980	70000	2050	2050	2500
53D 142K	880	1140	1.0	1260	1540	500	2310	70000	2300	2300	2150
53D 162K	1000	1280	1.0	1440	1760	500	2640	70000	2500	2500	1900

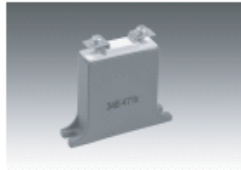




## S Type HD Series 34mm

Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		10/1000 $\mu$ s (J)	8/20 $\mu$ s (J)	
34S 330K	20	26	1.0	30	36	60	65	12000	50	50	43000
34S 390K	25	31	1.0	35	43	60	77	12000	65	65	31500
34S 470K	30	38	1.0	42	52	60	93	12000	75	75	28000
34S 560K	35	45	1.0	50	62	60	110	12000	90	90	24500
34S 680K	40	56	1.0	61	75	60	135	12000	110	110	21500
34S 820K	50	65	1.0	74	90	300	135	30000	135	135	19500
34S 101K	60	85	1.0	90	110	300	165	30000	165	165	15500
34S 121K	75	100	1.0	108	132	300	200	30000	200	200	13000
34S 151K	95	125	1.0	135	165	300	250	30000	260	260	11000
34S 181K	115	150	1.0	162	198	300	300	30000	300	300	9000
34S 201K	130	170	1.0	185	225	300	340	40000	330	330	8000
34S 221K	140	180	1.0	198	242	300	360	40000	360	360	7800
34S 241K	150	200	1.0	216	264	300	395	40000	390	390	7600
34S 271K	175	225	1.0	243	297	300	455	40000	420	420	7200
34S 301K	190	250	1.0	270	330	300	500	40000	460	460	7000
34S 331K	210	275	1.0	297	363	300	550	40000	500	500	6400
34S 361K	230	300	1.0	324	396	300	595	40000	510	510	6000
34S 391K	250	320	1.0	351	429	300	650	40000	530	530	4800
34S 431K	275	350	1.0	387	473	300	710	40000	600	600	4600
34S 471K	300	385	1.0	423	517	300	775	40000	650	650	4100
34S 511K	320	415	1.0	459	561	300	845	40000	700	700	4000
34S 561K	350	460	1.0	504	616	300	925	40000	730	730	3800
34S 621K	385	505	1.0	558	682	300	1025	40000	780	780	3600
34S 681K	420	560	1.0	612	748	300	1120	40000	810	810	3300
34S 751K	460	615	1.0	675	825	300	1240	40000	850	850	3000
34S 781K	485	640	1.0	702	858	300	1290	40000	930	930	2850
34S 821K	510	670	1.0	738	902	300	1355	40000	970	970	2700
34S 911K	550	745	1.0	819	1001	300	1500	40000	1050	1050	2100
34S 102K	625	825	1.0	900	1100	300	1650	40000	1120	1120	1700
34S 112K	680	895	1.0	990	1210	300	1815	40000	1250	1250	1520
34S 122K	750	990	1.0	1080	1320	300	1980	40000	1250	1250	1400
34S 142K	880	1140	1.0	1260	1540	300	2310	40000	1400	1400	1250
34S 162K	1000	1280	1.0	1440	1760	300	2640	40000	1500	1500	1100





## B Type HE Series

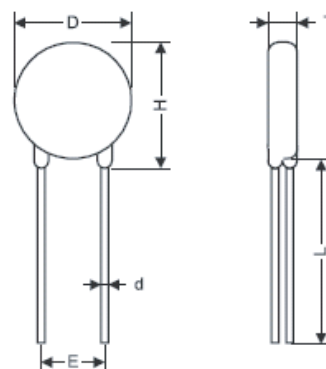
Model Number	Max. continuous voltage		Reference current (mA)	Voltage at reference current		Voltage at class current (8/20 $\mu$ s)		Max peak current (8/20 $\mu$ s 1 time) (A)	Energy		Max. capacitance (pF)
	r.m.s. (v)	d.c. (v)		Min. (v)	Max. (v)	Class Current (A)	Max. Clamping Voltage (V)		2ms (J)	10/1000 $\mu$ s (J)	
34B 330K	20	26	1.0	30	36	60	65	12000	36	50	43000
34B 390K	25	31	1.0	35	43	60	77	12000	46	65	31500
34B 470K	30	38	1.0	42	52	60	93	12000	54	75	28000
34B 560K	35	45	1.0	50	62	60	110	12000	65	90	24500
34B 680K	40	56	1.0	61	75	60	135	12000	80	110	21500
34B 820K	50	65	1.0	74	90	300	135	30000	95	135	19500
34B 101K	60	85	1.0	90	110	300	165	30000	120	165	15500
34B 121K	75	100	1.0	108	132	300	200	30000	140	200	13000
34B 151K	95	125	1.0	135	165	300	250	30000	185	260	11000
34B 181K	115	150	1.0	162	198	300	300	30000	215	300	9000
34B 201K	130	170	1.0	185	225	300	340	40000	235	330	8000
34B 221K	140	180	1.0	198	242	300	360	40000	260	360	7800
34B 241K	150	200	1.0	216	264	300	395	40000	280	390	7600
34B 271K	175	225	1.0	243	297	300	455	40000	300	420	7200
34B 301K	190	250	1.0	270	330	300	500	40000	330	460	7000
34B 331K	210	275	1.0	297	363	300	550	40000	360	500	6400
34B 361K	230	300	1.0	324	396	300	595	40000	365	510	6000
34B 391K	250	320	1.0	351	429	300	650	40000	380	530	4800
34B 431K	275	350	1.0	387	473	300	710	40000	430	600	4600
34B 471K	300	385	1.0	423	517	300	775	40000	465	650	4100
34B 511K	320	415	1.0	459	561	300	845	40000	500	700	4000
34B 561K	350	460	1.0	504	616	300	925	40000	520	730	3800
34B 621K	385	505	1.0	558	682	300	1025	40000	560	780	3600
34B 681K	420	560	1.0	612	748	300	1120	40000	580	810	3300
34B 751K	460	615	1.0	675	825	300	1240	40000	610	850	3000
34B 781K	485	640	1.0	702	858	300	1290	40000	665	930	2850
34B 821K	510	670	1.0	738	902	300	1355	40000	695	970	2700
34B 911K	550	745	1.0	819	1001	300	1500	40000	750	1050	2100
34B 102K	625	825	1.0	900	1100	300	1650	40000	800	1120	1700
34B 112K	680	895	1.0	990	1210	300	1815	40000	895	1250	1520
34B 122K	750	990	1.0	1080	1320	300	1980	40000	895	1250	1400
34B 142K	880	1140	1.0	1260	1540	300	2310	40000	1000	1400	1250
34B 162K	1000	1280	1.0	1440	1760	300	2640	40000	1070	1500	1100

## Dimension

### L TYPE

Table 1 unit : mm

SERIES	Dmax.	Hmax.	E ( $\pm 0.8$ )	d ( $\pm 0.1$ )	Lmin.
05D	7.0	9	5.0	0.6	20
07D	9.0	11	5.0	0.6	
10D	12.5	15.5	7.5	0.8	
14D	16.5	20.0*	7.5	0.8	
20D	23.0	26.0**	7.5	0.8	
	23.0	26.0**	10.0	1.0	
25D	27.5	31.0	12.7	1.0	

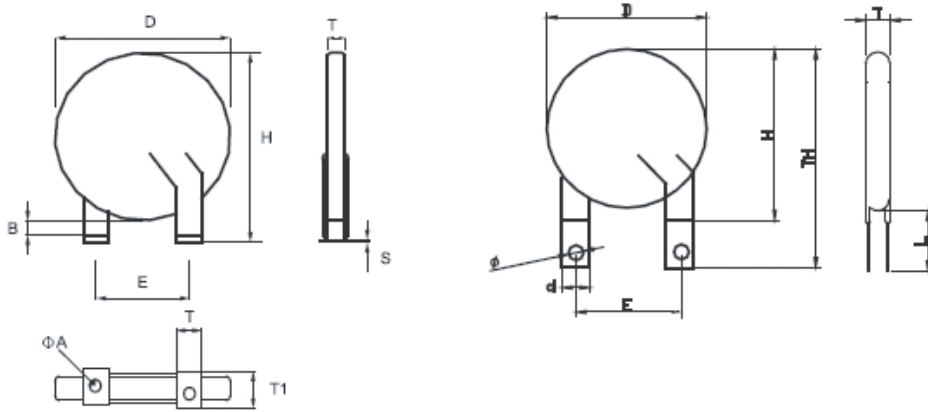


\* Above 14D561K ,Hmax. = 22.0 mm \*\*Above 20D561K ,Hmax. = 28.0 mm

Table 2 Tmax. unit : mm

Part No.	05D	07D	10D	14D	20D	25D
1 8 0 K	3.4	3.4	3.8	3.8	4.2	-
2 2 0 K	3.5	3.5	3.9	3.9	4.3	-
2 7 0 K	3.8	3.8	4.2	4.2	4.6	-
3 3 0 K	3.4	3.4	3.8	3.8	4.2	-
3 9 0 K	3.6	3.6	4.0	4.0	4.4	-
4 7 0 K	3.8	3.8	4.2	4.2	4.6	-
5 6 0 K	3.9	3.9	4.3	4.3	4.7	-
6 8 0 K	4.0	4.0	4.4	4.4	4.8	-
8 2 0 K	3.4	3.4	3.8	3.8	4.2	-
1 0 1 K	3.6	3.6	4.0	4.0	4.4	-
1 2 1 K	3.8	3.8	4.2	4.2	4.6	-
1 5 1 K	4.0	4.0	4.4	4.4	4.8	-
1 8 1 K	3.2	3.2	3.6	3.6	4.0	-
2 0 1 K	3.4	3.4	3.8	3.8	4.2	4.5
2 2 1 K	3.5	3.5	3.9	3.9	4.3	-
2 4 1 K	3.6	3.6	4.0	4.0	4.4	4.9
2 7 1 K	3.8	3.8	4.2	4.2	4.6	5.0
3 0 1 K	4.0	4.0	4.4	4.4	4.8	-
3 3 1 K	4.2	4.2	4.6	4.6	5.0	-
3 6 1 K	4.4	4.4	4.8	4.8	5.2	-
3 9 1 K	4.6	4.6	5.0	5.0	5.4	6.0
4 3 1 K	4.8	4.8	5.2	5.2	5.6	6.2
4 7 1 K	5.0	5.0	5.4	5.4	5.9	6.5
5 1 1 K	5.1	5.1	5.5	5.5	6.0	6.6
5 6 1 K	5.4	5.4	5.9	6.0	6.5	-
6 2 1 K	-	5.8	6.2	6.4	6.9	7.7
6 8 1 K	-	6.0	6.4	6.5	7.0	7.8
7 5 1 K	-	6.2	6.6	6.7	7.2	8.0
7 8 1 K	-	6.4	6.8	6.9	7.4	8.2
8 2 1 K	-	6.8	7.2	7.3	7.8	8.6
9 1 1 K	-	-	7.6	7.7	8.2	9.0
1 0 2 K	-	-	8.0	8.2	8.7	9.5
1 1 2 K	-	-	8.5	8.7	9.2	10.0
1 2 2 K	-	-	9.5	9.7	10.2	-
1 8 2 K	-	-	11.5	11.7	12.2	12.7

**D Type**



**S Type**

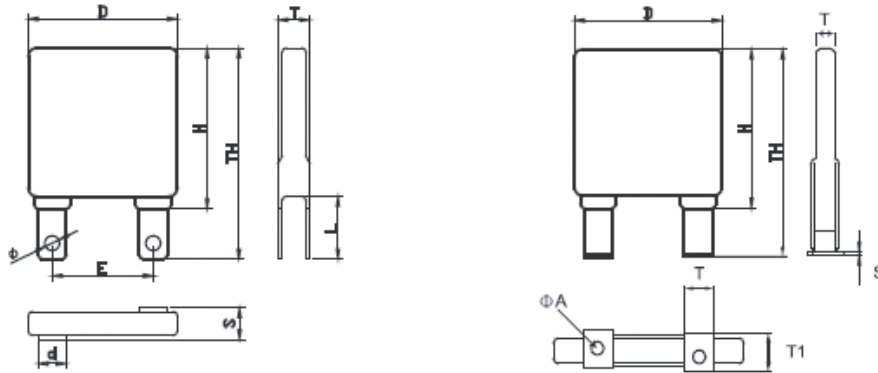


Table 3 Tmax.

unit : mm

Part No.	32D	40D	53D	34S
201K	6.3	6.3	6.3	6.3
241K	6.5	6.5	6.5	6.5
271K	6.7	6.7	6.7	6.7
331K	6.9	6.9	6.9	6.9
361K	7.1	7.1	7.1	7.1
391K	7.3	7.3	7.3	7.3
431K	7.5	7.5	7.5	7.5
471K	7.3	7.3	7.3	7.3
511K	7.5	7.5	7.5	7.5
621K	7.8	7.8	7.8	7.8
681K	8.0	8.0	8.0	8.0
751K	8.3	8.3	8.3	8.3
781K	8.7	8.7	8.7	8.7
821K	9.0	9.0	9.0	9.0
911K	9.4	9.4	9.4	9.4
102K	10.5	10.5	10.5	10.5
112K	11.7	11.7	11.7	11.7
122K	11.8	11.8	11.8	11.8
142K	12.0	12.0	12.0	12.0
162K	13.5	13.5	13.5	13.5

Box Type

34B

unit: mm

