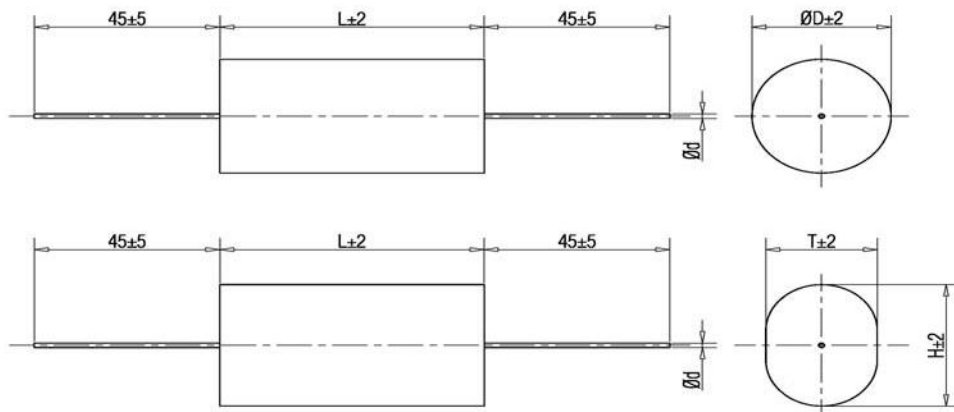




XSD series / IGBT Snubber



GENERAL TECHNICAL CHARACTERISTICS

Reference standards : IEC 61071-60068
 Dielectric : Polypropylene film
 Construction : Extended double side metallized carrier film with internal series connection and metallized film
 Coating : Polyester tape wrapping, UL94V-0 resin end fill
 Leads: Tinned copper wire

ELECTRICAL CHARACTERISTICS

Operating temperature - 40 to + 85 °C
 range(case) :
 Capacitance : 0.01 to 8.5µF
 Rated Voltage : 700 to 3000 VDC
 Tolerance : ± 5% , ± 10%
 Dissipation factor: $\leq 6 \times 10^{-4}$ Measured at 1000±20 Hz and 25±5°C
 Life expectancy : 100,000 hours at Un and 70 °C(Hot-spot temperature)

TEST METHODS AND PERFORMANCES

Dielectric strength: 1.5Un applied for 10s at 25±5°C
 Test voltage terminal to case : 3kVAC/50Hz for 60s
 Insulation resistance : 30000s but need not exceed 30GΩ,
 (typical value), after 1 minute of electrification at 100Vdc (25±5°C)

Electrical specifications, ordering codes

Cap (µF)	L	Dimension (mm)			d	du/dt (v/µs)	Ipeak (A)	Irms@25°C @100kHz (A)	ESR@ 100kHz (mΩ)	Ordering Code
		round D	flat, oval T	H						
Un 700VDC , Urms 380VAC, Us 1050V										
0.22	32		7.9	14.3	0.8	480	106	5.5	9.9	XSD-700-0.22-32FO
0.33	32	14.2	9.5	17.5	0.8	480	158	6	6.9	XSD-700-0.33-32#
0.47	32	16.6	11.9	19.9	0.8	480	226	8	4.7	XSD-700-0.47-32#
0.68	32	19.7	14.9	22.9	1.0	480	326	9	3.9	XSD-700-0.68-32#
0.68	44	15.6	10.9	18.9	1.0	325	221	9	4.4	XSD-700-0.68-44#
1.0	44	18.7	13.9	21.9	1.2	325	325	9	3.9	XSD-700-1.0-44#
1.5	44	22.6	16.3	27.5	1.2	325	488	12	3.3	XSD-700-1.5-44#
2.0	44	25.9	19.5	30.7	1.2	325	650	12	3.0	XSD-700-2.0-44#
2.2	44	27.1	20.7	31.9	1.2	325	715	12	2.9	XSD-700-2.2-44#
2.2	57	22.6	16.3	27.5	1.2	240	528	12	3.8	XSD-700-2.2-57#
2.5	44	28.8	22.4	33.6	1.2	325	813	12	3.5	XSD-700-2.5-44#
2.5	57	24.0	17.7	28.9	1.2	240	600	12	3.8	XSD-700-2.5-57#
3.0	44	31.4	25.0	36.2	1.2	325	975	12	3.1	XSD-700-3.0-44#

20.XSD Series – IGBT Snubber



XSD series / IGBT Snubber

Electrical specifications, ordering codes

Cap (μ F)	L	Dimension (mm)			d	du/dt (v/ μ s)	I _{peak} (A)	I _{rms@25°C} @10kHz (A)	ESR@100 kHz(m Ω)	Ordering Code
		round D	flat, T	oval H						
Un 700VDC , Urms 380VAC , Us 1050V										
3.0	57	26.2	19.8	31.0	1.2	240	720	12	3.3	XSD-700-3.0-57#
3.3	44	32.9	26.4	37.6	1.2	325	1073	12	2.9	XSD-700-3.3-44#
3.5	57	28.2	21.8	33.0	1.2	240	840	12	2.7	XSD-700-3.5-57#
4.0	57	30.0	23.6	34.8	1.2	240	960	12	2.6	XSD-700-4.0-57#
4.7	57	32.5	26.0	37.2	1.2	240	1128	12	2.5	XSD-700-4.7-57#
5.6	57	35.4	28.8	40.0	1.2	240	1344	12	2.3	XSD-700-5.6-57#
6.8	57	38.9			1.2	240	1632	12	2.0	XSD-700-6.8-57
8.5	57	43.3			1.2	240	2040	12	1.6	XSD-700-8.5-57
Un 850VDC , Urms 450VAC , Us 1275V										
0.10	32		5.9	12.3	0.8	700	70	4	11.5	XSD-850-0.10-32FO
0.15	32		7.6	14.0	0.8	700	105	5.5	8.6	XSD-850-0.15-32FO
0.22	32	13.7	9.1	17.1	0.8	700	154	6.5	6.5	XSD-850-0.22-32#
0.22	44	11.1	7.1	13.5	0.8	400	88	6.5	7.9	XSD-850-0.22-44#
0.33	32	16.4	11.7	19.7	1.0	700	231	8	4.8	XSD-850-0.33-32#
0.33	44	13.2	8.5	16.5	1.0	400	132	7.5	6.2	XSD-850-0.33-44#
0.47	32	19.3	14.6	22.6	1.0	700	329	9	9.5	XSD-850-0.47-32#
0.47	44	15.4	10.7	18.7	1.0	400	188	9	5.3	XSD-850-0.47-44#
0.68	44	18.2	13.5	21.5	1.0	400	272	9	3.2	XSD-850-0.68-44#
1.0	44	21.8	15.6	26.8	1.2	400	400	12	3.3	XSD-850-1.0-44#
1.5	44	26.4	20.1	31.3	1.2	400	600	12	2.8	XSD-850-1.5-44#
2.0	44	30.4	23.9	35.1	1.2	400	800	12	3.0	XSD-850-2.0-44#
2.2	44	31.8	25.3	36.5	1.2	400	880	12	2.3	XSD-850-2.2-44#
2.2	57	26.5	20.1	31.3	1.2	290	638	12	2.8	XSD-850-2.2-57#
2.5	44	33.8	27.3	38.5	1.2	400	1000	12	2.6	XSD-850-2.5-44#
2.5	57	28.1	21.7	32.9	1.2	290	725	12	2.8	XSD-850-2.5-57#
3.0	57	30.7	24.3	35.5	1.2	290	870	12	2.6	XSD-850-3.0-57#
3.3	57	32.2	25.7	36.9	1.2	290	957	12	2.4	XSD-850-3.3-57#
4.0	57	35.3	28.8	40.0	1.2	290	1160	12	2.3	XSD-850-4.0-57#
4.7	57	38.2			1.2	290	1363	12	2.0	XSD-850-4.7-57
5.6	57	41.6			1.2	290	1624	12	1.7	XSD-850-5.6-57
Un 1000VDC , Urms 480VAC , Us 1500V										
0.10	32		7.7	12.5	0.8	850	85	5	12	XSD-1000-0.10-32FO
0.15	32		9.1	15.5	0.8	850	128	6	8.2	XSD-1000-0.15-32FO
0.22	32	15.6	10.9	18.9	1.0	850	187	7	7.8	XSD-1000-0.22-32#
0.33	32	18.7	14.0	22.0	1.0	850	281	9	4.5	XSD-1000-0.33-32#
0.33	44	14.9	10.2	18.2	1.0	570	188	9	5.8	XSD-1000-0.33-44#
0.47	32	22.1	15.9	27.1	1.0	850	400	9	3.8	XSD-1000-0.47-32#
0.47	44	17.5	12.8	20.8	1.0	570	268	9	4.7	XSD-1000-0.47-44#
0.68	44	20.8	14.6	25.8	1.0	570	388	9	4.0	XSD-1000-0.68-44#
1.0	44	25.0	18.6	29.8	1.2	570	570	12	3.2	XSD-1000-1.0-44#
1.5	44	30.3	23.9	35.1	1.2	570	855	12	3.6	XSD-1000-1.5-44#
1.5	57	25.2	18.9	30.1	1.2	340	510	12	3.9	XSD-1000-1.5-57#
2.0	57	29.0	22.6	33.8	1.2	340	680	12	3.0	XSD-1000-2.0-57#
2.2	57	30.3	23.9	35.1	1.2	340	748	12	2.7	XSD-1000-2.2-57#
3.0	57	35.3	28.7	39.9	1.2	340	1020	12	2.4	XSD-1000-3.0-57#
3.3	57	36.9	32.9	39.3	1.2	340	1122	12	2.1	XSD-1000-3.3-57#
4.0	57	40.6			1.2	340	1360	12	1.8	XSD-1000-4.0-57
4.7	57	43.9			1.2	340	1598	12	1.6	XSD-1000-4.7-57

Un 1200VDC , Urms 500VAC, Us 1800V

0.047	32	5.5	10.3	0.8	1100	52	3	19.4	XSD-1200-0.047-32FO
0.068	32	6.9	11.7	0.8	1100	75	3.5	12.0	XSD-1200-0.068-32FO

21.XSD Series – IGBT Snubber



XSD series / IGBT Snubber

Electrical specifications, ordering codes

Cap (μ F)	L	Dimension (mm)				d	du/dt (v/ μ s)	I _{peak} (A)	I _{rms@25°C} @10kHz (A)	ESR@10 0kHz(m Ω)	Ordering Code
		round D	flat, oval T	oval H							
Un 1200VDC , Urms 500VAC, Us 1800V											
0.10	32		8.7	13.5	0.8	1100	110	5	10.7	XSD-1200-0.10-32FO	
0.10	44	9.8	5.8	12.2	0.8	650	65	5	13.1	XSD-1200-0.10-44#	
0.15	32	14.3	9.6	17.6	1.0	1100	165	6	7.7	XSD-1200-0.15-32#	
0.15	44	11.5	7.5	13.9	1.0	650	98	6	10.0	XSD-1200-0.15-44#	
0.22	32	17.0	12.3	20.3	1.2	1100	242	9	5.4	XSD-1200-0.22-32#	
0.22	44	13.6	8.9	16.9	1.0	650	143	9	7.6	XSD-1200-0.22-44#	
0.33	32	20.5	15.7	23.7	1.2	1100	363	9	4.5	XSD-1200-0.33-32#	
0.33	44	16.3	11.6	19.6	1.0	650	215	9	5.4	XSD-1200-0.33-44#	
0.47	44	19.7	14.4	22.4	1.2	650	306	9	4.8	XSD-1200-0.47-44#	
0.68	44	22.8	16.5	27.7	1.2	650	442	12	3.9	XSD-1200-0.68-44#	
1.0	44	27.4	21.0	32.2	1.2	650	650	12	3.4	XSD-1200-1.0-44#	
1.0	57	22.8	16.5	27.7	1.2	385	385	12	3.8	XSD-1200-1.0-57#	
1.2	44	29.9	23.4	34.6	1.2	650	780	12	3.0	XSD-1200-1.2-44#	
1.2	57	24.9	18.5	29.7	1.2	385	462	12	3.4	XSD-1200-1.2-57#	
1.5	44	33.3	26.8	38.0	1.2	650	975	12	2.7	XSD-1200-1.5-44#	
1.5	57	27.7	21.3	32.5	1.2	385	578	12	3.0	XSD-1200-1.5-57#	
2.0	57	31.8	25.3	36.5	1.2	385	770	12	2.6	XSD-1200-2.0-57#	
2.2	57	33.3	26.8	38.0	1.2	385	847	12	2.5	XSD-1200-2.2-57#	
2.5	57	35.4	28.9	40.1	1.2	385	963	12	2.3	XSD-1200-2.5-57#	
3.0	57	38.7			1.2	385	1155	12	2.0	XSD-1200-3.0-57	
3.3	57	40.6			1.2	385	1270	12	1.7	XSD-1200-3.3-57	
4.0	57	44.6			1.2	385	1540	12	1.5	XSD-1200-4.0-57	
Un 1500VDC , Urms 570VAC, Us 2250V											
0.10	32	14.7	10.0	18.0	0.8	1225	123	5.5	9.6	XSD-1500-0.10-32#	
0.15	32	17.7	13.0	21.0	1.0	1225	184	7	7.2	XSD-1500-0.15-32#	
0.22	32	21.1	14.9	26.1	1.0	1225	270	9	5.3	XSD-1500-0.22-32#	
0.22	44	16.8	12.1	20.1	1.0	800	176	9	7.0	XSD-1500-0.22-44#	
0.33	44	20.2	15.5	23.5	1.0	800	264	9	5.3	XSD-1500-0.33-44#	
0.47	44	23.9	17.6	28.8	1.2	800	376	11	4.3	XSD-1500-0.47-44#	
0.68	44	28.5	22.1	33.3	1.2	800	544	12	3.7	XSD-1500-0.68-44#	
1.0	44	34.4	27.9	39.1	1.2	800	800	12	3.2	XSD-1500-1.0-44#	
1.0	57	28.6	22.2	33.4	1.2	570	570	12	3.7	XSD-1500-1.0-57#	
1.2	57	31.2	24.8	36.0	1.2	570	684	12	3.4	XSD-1500-1.2-57#	
1.5	57	34.8	28.3	39.5	1.2	570	855	12	2.9	XSD-1500-1.5-57#	
2.0	57	40.0			1.2	570	1140	12	2.5	XSD-1500-2.0-57	
2.2	57	41.9			1.2	570	1254	12	2.3	XSD-1500-2.2-57	
2.5	57	44.6			1.2	570	1425	12	2.1	XSD-1500-2.5-57	
Un 1700VDC , Urms 575VAC, Us 2550V											
0.033	32		5.9	12.3	0.8	1350	45	3.9	24.6	XSD-1700-0.033-32FO	
0.047	32		7.4	13.8	0.8	1350	63	4.0	18.2	XSD-1700-0.047-32FO	
0.068	32	13.3	8.7	16.7	0.8	1350	92	4.1	13.7	XSD-1700-0.068-32#	
0.10	32	15.8	11.1	19.1	0.8	1350	135	5.7	9.3	XSD-1700-0.10-32#	
0.15	32	19.1	14.3	22.3	1.0	1350	203	8.0	7.0	XSD-1700-0.15-32#	
0.22	32	22.8	16.5	27.7	1.0	1350	297	9.0	5.2	XSD-1700-0.22-32#	
0.22	44	18.1	13.3	21.3	1.0	880	194	9.0	6.8	XSD-1700-0.22-44#	
0.33	44	21.8	15.6	26.8	1.0	880	290	9.0	4.9	XSD-1700-0.33-44#	

22.XSD Series – IGBT Snubber



XSD series / IGBT Snubber

Electrical specifications, ordering codes

Cap (μ F)	L	Dimension (mm)			d	du/dt (v/ μ s)	I _{peak} (A)	I _{rms@25°C} @10kHz (A)	ESR@100 kHz(m Ω)	Ordering Code
		round D	flat, oval T	H						
Un 1700VDC , Urms 575VAC, Us 2550V										
0.47	44	25.8	19.5	30.7	1.2	880	414	12	4.0	XSD-1700-0.47-44#
0.68	44	30.8	24.4	35.6	1.2	880	598	12	3.5	XSD-1700-0.68-44#
1.0	44	37.2	30.6	41.8	1.2	880	880	12	3.0	XSD-1700-1.0-44#
1.0	57	30.9	24.4	35.6	1.2	610	610	12	3.4	XSD-1700-1.0-57#
1.2	57	33.8	27.2	38.4	1.2	610	732	12	3.1	XSD-1700-1.2-57#
1.5	57	37.6			1.2	610	915	12	2.6	XSD-1700-1.5
2.0	57	43.3			1.2	610	1220	12	2.4	XSD-1700-2.0
Un 2000VDC , Urms 630VAC, Us 3000V										
0.022	32		5.4	11.8	0.8	1750	39	2.5	34.5	XSD-2000-0.022-32FO
0.033	32		7.0	13.4	0.8	1750	58	3.5	23.7	XSD-2000-0.033-32FO
0.047	32		8.1	16.1	0.8	1750	82	4.5	16.8	XSD-2000-0.047-32FO
0.047	44	10.4	6.4	12.8	0.8	1000	47	4	21.0	XSD-2000-0.047-44#
0.068	32	15.0	10.3	18.3	1.0	1750	119	5.5	11.8	XSD-2000-0.068-32#
0.068	44	12.1	8.1	14.5	0.8	1000	68	5.5	16.3	XSD-2000-0.068-44#
0.10	32	17.8	13.1	21.1	1.0	1750	175	7.5	8.4	XSD-2000-0.10-32#
0.10	44	14.2	9.6	17.6	1.0	1000	100	7	12.4	XSD-2000-0.10-44#
0.15	44	17.1	12.4	20.4	1.0	1000	150	9	6.6	XSD-2000-0.15-44#
0.22	44	20.4	15.6	23.6	1.0	1000	220	9	6.0	XSD-2000-0.22-44#
0.33	44	24.7	18.4	29.6	1.2	1000	330	12	4.7	XSD-2000-0.33-44#
0.47	44	29.9	23.4	34.6	1.2	1000	473	12	3.9	XSD-2000-0.47-44#
0.56	44	32.4	25.9	37.1	1.2	1000	560	12	3.6	XSD-2000-0.56-44#
0.56	57	26.5	20.1	31.3	1.2	640	358	12	4.5	XSD-2000-0.56-57#
0.68	57	29.1	22.7	33.9	1.2	640	435	12	4.0	XSD-2000-0.68-57#
1.0	57	35.1	28.6	39.8	1.2	640	640	12	3.3	XSD-2000-1.0-57#
1.2	57	38.3			1.2	640	768	12	3.0	XSD-2000-1.2-57
1.5	57	42.8			1.2	640	960	12	2.2	XSD-2000-1.5-57
Un 2500VDC , Urms 700VAC, Us 3750V										
0.022	32		6.9	13.3	0.8	2150	47	3.5	24.0	XSD-2500-0.022-32FO
0.033	32		8.2	16.2	0.8	2150	71	4	22.7	XSD-2500-0.033-32FO
0.047	32	15.0	10.3	18.3	0.8	2150	101	5	15.5	XSD-2500-0.047-32#
0.068	32	17.3	13.0	21.0	1.0	2150	146	6.5	11.1	XSD-2500-0.068-32#
0.10	32	21.3	15.0	26.2	1.0	2150	215	8.5	7.8	XSD-2500-0.10-32#
0.10	44	16.9	12.1	20.1	1.0	1350	135	8.5	12.2	XSD-2500-0.10-44#
0.15	44	20.4	15.6	23.6	1.0	1350	203	9	8.1	XSD-2500-0.15-44#
0.22	44	24.4	18.1	29.3	1.2	1350	297	11	5.9	XSD-2500-0.22-44#
0.33	44	29.6	23.2	34.4	1.2	1350	446	12	4.5	XSD-2500-0.33-44#
0.33	57	24.7	18.3	29.5	1.2	880	290	12	5.4	XSD-2500-0.33-57#
0.47	57	29.2	22.8	34.0	1.2	880	414	12	4.4	XSD-2500-0.47-57#
0.68	57	34.9	28.4	39.6	1.2	880	598	12	3.7	XSD-2500-0.68-57#
0.82	57	38.3			1.2	880	722	12	3.3	XSD-2500-0.82-57
1.0	57	42.2			1.2	880	880	12	2.8	XSD-2500-1.0-57
Un 3000VDC, Urms 750VAC, Us 4500V										
0.010	32		5.9	12.3	0.8	2750	28	2	61.0	XSD-3000-0.010-32FO
0.015	32		7.1	13.5	0.8	2750	41	3	42.5	XSD-3000-0.015-32FO
0.022	32	13.1	8.4	16.4	0.8	2750	61	4	28.5	XSD-3000-0.022-32#
0.033	32	15.7	11.0	19.0	1.0	2750	91	5	19.7	XSD-3000-0.033-32#

0.047 32 18.4 13.7 21.7 1.0 2750 129 6.5 13.8 XSD-3000-0.047-32#

23.XSD Series – IGBT Snubber



XSD series / IGBT Snubber

Electrical specifications, ordering codes

Cap (μ F)	L	Dimension (mm)			d	du/dt (v/ μ s)	I _{peak} (A)	I _{rms} @25°C @10kHz (A)	ESR@100 kHz(m Ω)	Ordering Code
		round D	flat, oval T	H						
Un 3000VDC , Urms 750VAC , Us 4500V										
0.047	44	14.7	10.0	18.0	1.0	1600	75	6	17.8	XSD-3000-0.047-44#
0.068	44	17.3	12.6	20.6	1.0	1600	109	8	12.8	XSD-3000-0.068-44#
0.10	44	20.7	14.5	25.7	1.2	1600	160	11	9.4	XSD-3000-0.10-44#
0.15	44	25.1	18.8	30.0	1.2	1600	240	12	6.8	XSD-3000-0.15-44#
0.22	44	30.2	23.7	34.9	1.2	1600	352	12	5.2	XSD-3000-0.22-44#
0.22	57	25.1	18.8	30.0	1.2	990	218	12	5.9	XSD-3000-0.22-57#
0.33	57	30.5	24.1	35.3	1.2	990	327	12	4.9	XSD-3000-0.33-57#
0.39	57	33.1	26.6	37.8	1.2	990	386	12	4.4	XSD-3000-0.39-57#
0.47	57	36.3			1.2	990	465	12	4.0	XSD-3000-0.47-57
0.68	57	43.4			1.2	990	673	12	3.5	XSD-3000-0.68-57

XSD	-	120 0-	0.47 -	44#
Series		Voltage	Capacitance	Dimension and terminal

44 Length of capacitor

None for round axial, FO for flat oval

24.XSD Series – IGBT Snubber