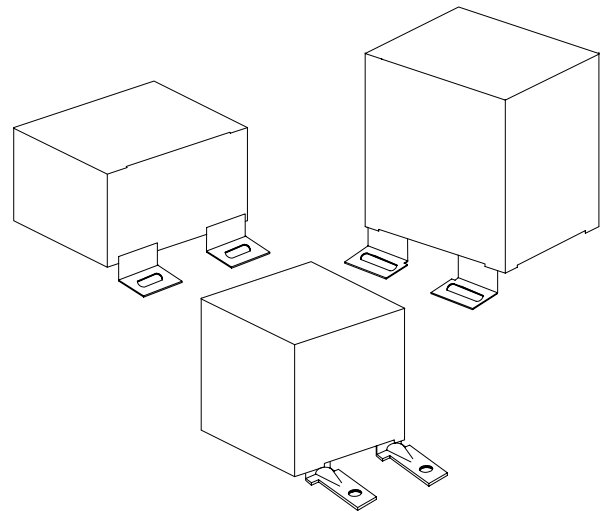


BOX CAPACITOR SNUBBER APPLICATIONS

General Characteristics

- Self healing
- Low losses
- Very high ripple current
- High contact reliability
- Suitable for high frequency applications



TECHNICAL DATA

General technical data	VDE 0560 – IEC 61071 – EN 61071
Application class (DIN 40040)	GPD / LS
Temperature range (Case)	-40 to +85 °C
Max permissible ambient temperature (operation at rated power, rated current and natural cooling)	+ 70 °C
Capacitance tolerance code (15 th digit)	J = ±5%; K = ±10%
Peak non-repetitive max current	$I_{PKR} \times 1.5$
Test voltage terminal to terminal U_{TT}	2 U_N for 10 seconds
Test voltage terminal to case U_{TC}	3KV – 50Hz for 60 seconds
Dissipation factor (tgδ)	$\leq 5 \times 10^{-4}$ at 1kHz and 20°C
Permissible relative humidity	Annual average humidity should be $\leq 95\%$; however, 30 days per year it can be continuously 100% and on the other days it can be occasionally 100%. Dewing not permitted.
IEC climatic category	40 / 85 / 56 according to IEC 68-1
Capacitance deviation in the operating temperature range of -40 to +85 °C	±1.5% max on capacitance value measured at +20°C
Change of capacitance versus operating time	-3% after 30,000 hours at U_{RMS} or after 100,000 hours at U_N
Case components	Solvent resistant plastic case with epoxy resin sealing. Flame retardant execution (UL class 94 V0)
Terminals	Tinned brass lugs
Installation	Any position
Life Expectancy	$\geq 30,000$ hours at U_{RMS} ; $\geq 100,000$ hours at U_N
Failure quota	$300 / 10^9$ components hour

BOX CAPACITOR SNUBBER APPLICATIONS

Peak Voltage Table

Un	850V	1000V	1200V	2000V	3000V
Umax	1200V	1300V	1600V	2400V	3500V

ELECTRICAL & SIZE TABLE

C μ F	UN V-	URMS V-	dv/dt V/ μ s	IPKR A	ESR typ. @ 100kHz (m Ω)	IRMS (100kHz) @70°C (A)	Dimensions (all styles)			Part Number
							B	H	L	
0.47	850	450	300	141	7.6	16	28	30	45	C4BSMBX3470Z-0-
0.68	850	450	300	204	5.9	18	28	30	45	C4BSMBX3680Z-0-
1	850	450	300	300	4.6	20	28	30	45	C4BSMBX4100Z-0-
1.5	850	450	300	450	3.8	24	28	37	42.5	C4BSMBX4150Z-0-
2	850	450	300	600	3.3	28	30	45	42	C4BSMBX4200Z-0-
2.2	850	450	300	660	3.3	28	30	45	42	C4BSMBX4220Z-0-
2.5	850	450	200	500	4.1	28	30	45	57.5	C4BSMBX4250Z-0-
3	850	450	200	600	3.7	29	30	45	57.5	C4BSMBX4300Z-0-
3.3	850	450	200	660	3.6	32	35	50	57.5	C4BSMBX4330Z-0-
4	850	450	200	800	3.3	33	35	50	57.5	C4BSMBX4400Z-0-
0.47	1000	480	380	179	6.6	17	28	30	45	C4BSNBX3470Z-0-
0.68	1000	480	380	258	5.2	19	28	30	45	C4BSNBX3680Z-0-
1	1000	480	380	380	4.7	20	28	30	45	C4BSNBX4100Z-0-
1.5	1000	480	380	570	3.8	24	28	37	42.5	C4BSNBX4150Z-0-
2	1000	480	380	760	3.3	28	30	45	42	C4BSNBX4200Z-0-
2.2	1000	480	230	506	3.9	28	30	45	57.5	C4BSNBX4220Z-0-
2.5	1000	480	230	575	3.7	32	35	50	57.5	C4BSNBX4250Z-0-
3	1000	480	230	690	3.4	33	35	50	57.5	C4BSNBX4300Z-0-
0.33	1200	500	430	142	8.1	15	28	30	45	C4BSPBX3330Z-0-
0.47	1200	500	430	202	6.2	17	28	30	45	C4BSPBX3470Z-0-
0.68	1200	500	430	292	5.0	21	28	37	42.5	C4BSPBX3680Z-0-
1	1200	500	430	430	4.0	25	30	45	42	C4BSPBX4100Z-0-
1.2	1200	500	430	512	3.8	26	30	45	42	C4BSPBX4120Z-0-
1.5	1200	500	270	405	4.5	26	30	45	57.5	C4BSPBX4150Z-0-
2	1200	500	270	540	3.9	31	35	50	57.5	C4BSPBX4200Z-0-
2.2	1200	500	270	594	3.7	31	35	50	57.5	C4BSPBX4220Z-0-
2.5	1200	500	270	675	3.5	32	35	50	57.5	C4BSPBX4250Z-0-
0.1	2000	630	670	67	17.2	11	28	30	45	C4BSWBX3100Z-0-
0.22	2000	630	670	147	8.9	15	28	30	45	C4BSWBX3220Z-0-
0.33	2000	630	670	221	6.6	18	28	37	42.5	C4BSWBX3330Z-0-
0.47	2000	630	670	315	5.2	22	30	45	42	C4BSWBX3470Z-0-
0.68	2000	630	400	272	6.0	23	30	45	57.5	C4BSWBX3680Z-0-
1	2000	630	400	400	4.7	28	35	50	57.5	C4BSWBX4100Z-0-
1.2	2000	630	400	480	4.4	29	35	50	57.5	C4BSWBX4120Z-0-
0.047	3000	750	1100	52	27.5	9	28	30	45	C4BSYBX2470Z-0-
0.1	3000	750	1100	110	14	12	28	30	45	C4BSYBX3100Z-0-
0.22	3000	750	1100	242	7.7	19	30	45	42	C4BSYBX3220Z-0-
0.33	3000	750	700	231	7.8	21	30	45	57.5	C4BSYBX3330Z-0-
0.47	3000	750	700	329	6.0	25	35	50	57.5	C4BSYBX3470Z-0-

Style: A, B, C, D (page 4)

Tolerance: J ($\pm 5\%$); K ($\pm 10\%$)

BOX CAPACITOR SNUBBER APPLICATIONS

STYLE TABLE

C μ F	UN V-	U _{RMS} V-	Style A		Style B		Style C		Style D		Part Number
			P	P1	P	P1	P	P1	P	P1	
0.47	850	450	25.5	10.5	23	6	18	6	18	6	C4BSMBX3470Z-0-
0.68	850	450	25.5	10.5	23	6	18	6	18	6	C4BSMBX3680Z-0-
1	850	450	25.5	10.5	23	6	18	6	18	6	C4BSMBX4100Z-0-
1.5	850	450	25.5	10.5	23	6	18	6	18	6	C4BSMBX4150Z-0-
2	850	450	25.5	10.5	23	6	18	6	18	6	C4BSMBX4200Z-0-
2.2	850	450	25.5	10.5	23	6	18	6	18	6	C4BSMBX4220Z-0-
2.5	850	450	41	25.5	38	21					C4BSMBX4250Z-0-
3	850	450	41	25.5	38	21					C4BSMBX4300Z-0-
3.3	850	450	41	25.5	38	21					C4BSMBX4330Z-0-
4	850	450	41	25.5	38	21					C4BSMBX4400Z-0-
0.47	1000	480	25.5	10.5	23	6	18	6	18	6	C4BSNBX3470Z-0-
0.68	1000	480	25.5	10.5	23	6	18	6	18	6	C4BSNBX3680Z-0-
1	1000	480	25.5	10.5	23	6	18	6	18	6	C4BSNBX4100Z-0-
1.5	1000	480	25.5	10.5	23	6	18	6	18	6	C4BSNBX4150Z-0-
2	1000	480	25.5	10.5	23	6	18	6	18	6	C4BSNBX4200Z-0-
2.2	1000	480	41	25.5	38	21					C4BSNBX4220Z-0-
2.5	1000	480	41	25.5	38	21					C4BSNBX4250Z-0-
3	1000	480	41	25.5	38	21					C4BSNBX4300Z-0-
0.33	1200	500	25.5	10.5	23	6	18	6	18	6	C4BSPBX3330Z-0-
0.47	1200	500	25.5	10.5	23	6	18	6	18	6	C4BSPBX3470Z-0-
0.68	1200	500	25.5	10.5	23	6	18	6	18	6	C4BSPBX3680Z-0-
1	1200	500	25.5	10.5	23	6	18	6	18	6	C4BSPBX4100Z-0-
1.2	1200	500	25.5	10.5	23	6	18	6	18	6	C4BSPBX4120Z-0-
1.5	1200	500	41	25.5	38	21					C4BSPBX4150Z-0-
2	1200	500	41	25.5	38	21					C4BSPBX4200Z-0-
2.2	1200	500	41	25.5	38	21					C4BSPBX4220Z-0-
2.5	1200	500	41	25.5	38	21					C4BSPBX4250Z-0-
0.1	2000	630	25.5	10.5	23	6	18	6	18	6	C4BSWBX3100Z-0-
0.22	2000	630	25.5	10.5	23	6	18	6	18	6	C4BSWBX3220Z-0-
0.33	2000	630	25.5	10.5	23	6	18	6	18	6	C4BSWBX3330Z-0-
0.47	2000	630	25.5	10.5	23	6	18	6	18	6	C4BSWBX3470Z-0-
0.68	2000	630	41	25.5	38	21					C4BSWBX3680Z-0-
1	2000	630	41	25.5	38	21					C4BSWBX4100Z-0-
1.2	2000	630	41	25.5	38	21					C4BSWBX4120Z-0-
0.047	3000	750	25.5	10.5	23	6	18	6	18	6	C4BSYBX2470Z-0-
0.1	3000	750	25.5	10.5	23	6	18	6	18	6	C4BSYBX3100Z-0-
0.22	3000	750	25.5	10.5	23	6	18	6	18	6	C4BSYBX3220Z-0-
0.33	3000	750	41	25.5	38	21					C4BSYBX3330Z-0-
0.47	3000	750	41	25.5	38	21					C4BSYBX3470Z-0-

Style: A, B, C, D (page 4)

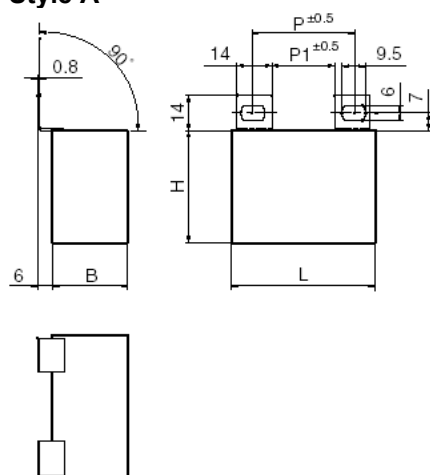
Tolerance: J ($\pm 5\%$); K ($\pm 10\%$)

Note: P1 represents the free-air spacing distance between the terminal blades.

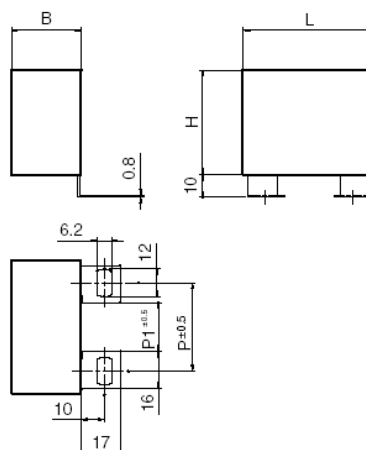
Style E

C μ F	UN V-	U _{RMS} V-	dv/dt V/ μ s	I _{PKR} A	ESR typ. @ 100kHz (m Ω)	IRMS (100kHz) @70°C (A)	Dimensions (all styles)				Part Number
							B	H	L	P	
0.47	1000	480	380	179	6.6	17	18	33	32	31	C4BSNBX3470ZE0J
1.5	1200	500	270	405	4.5	26	19	38	41.5	31	C4BSPBX4120ZE0J

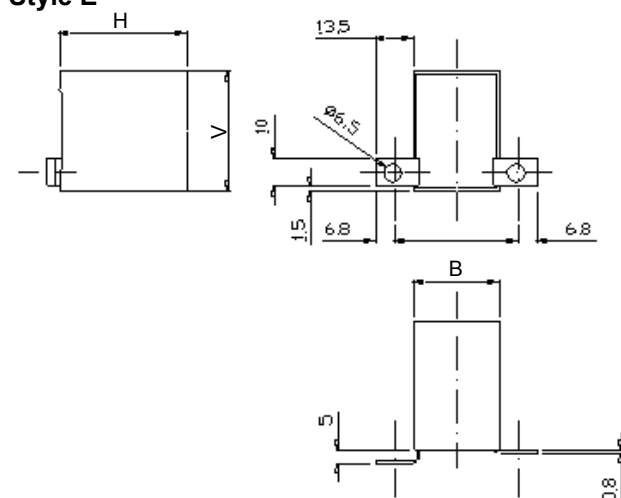
Style A



Style B



Style E



Style D

