



**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 - IEC61071 - EN61071
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 <sup>th</sup> digit)	J = ± 5% ; K = ± 10%
Peak non-repetitive max current	IPKR X 1.5
Test voltage terminal to terminal U <sub>TT</sub>	2 U <sub>N</sub> for 10 seconds
Test voltage terminal to case U <sub>TC</sub>	3kV <sub>DC</sub> 50Hz for 60 seconds
Dissipation factor ( tgδ )	≤ 5 x 10 <sup>-4</sup> at 1 kHz and 20 °C
Permissible relative humidity	Annual average ≤ 95% on 30 days / year, continuously 100% on other days occasionally 100%. Dewing not admissible
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 <sub>RMS</sub> or after 100.000 hours at U <sub>N</sub>
Case components	Solvent resistant plastic case with epoxy resin sealing. Flame retardant execution (UL class 94 V0).
Terminals	Tinned brass lugs
Installation	Whatever Position
Life Expectancy	≥ 30.000 hours at U <sub>RMS</sub> ; ≥ 100.000 hours at U <sub>N</sub>
Failure quota	300 / 10 <sup>9</sup> components hour

Peak voltage table

Un	850 V	1000 V	1200 V	2000 V	3000 V
U <sub>max</sub>	1200 V	1300 V	1600 V	2400 V	3500 V

GENERAL CHARACTERISTICS

Code	C μF	Un Vdc	URMS Vac	dv/dt V/μs	IPKR A	ESR typ. @ 100 kHz (mΩ)	IRMS 100 kHz @ 70°C (A)	DIMENSIONS (mm)										
								ALL STYLES			STYLE							
								B	H	L	"A"	"A"	"B"	"B"	"C-D"	"C-D"	"E"	"E"
								P	P1	P	P1	P	P1	P	P1	P	P1	
C4BSMBX3470ZEE	0.47	850	550	1232	579	4.2	20	18	33	32	/	/	/	/	/	/	31	/
C4BSMBX3470Z_F_	0.47	850	550	758	356	8.2	16	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSMBX3680Z_F_	0.68	850	550	758	516	5.7	19	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSMBX4100Z_F_	1	850	550	758	758	4.0	22	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSMBX4150Z_J_	1.5	850	550	758	1138	2.7	29	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BSMBX4200Z_L_	2	850	550	758	1517	2.1	36	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BSMBX4220Z_L_	2.2	850	550	758	1668	1.9	37	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BSMBX4250Z_M_	2.5	850	550	469	1174	1.7	39	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSMBX4300Z_M_	3	850	550	469	1408	3.0	32	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSMBX4330Z_M_	3.3	850	550	469	1549	2.8	33	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSMBX4400Z_N_	4	850	550	469	1878	2.3	36	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BSMBX4500Z_N_	5	850	550	469	2347	1.9	42	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BSNBX3470ZEE	0.47	1000	600	1344	632	3.9	20	18	33	32	/	/	/	/	/	/	31	/
C4BSNBX3470Z_F_	0.47	1000	600	827	389	7.6	16	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSNBX3680Z_F_	0.68	1000	600	827	563	5.3	20	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSNBX4100Z_F_	1	1000	600	827	827	3.7	23	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSNBX4150Z_J_	1.5	1000	600	827	1241	2.5	30	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BSNBX4200Z_L_	2	1000	600	827	1655	2.0	36	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BSNBX4220Z_M_	2.2	1000	600	512	1127	3.8	29	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSNBX4250Z_M_	2.5	1000	600	512	1280	3.3	30	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSNBX4300Z_M_	3	1000	600	512	1536	2.8	33	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSNBX4330Z_M_	3.3	1000	600	512	1690	2.6	34	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSNBX4400Z_N_	4	1000	600	512	2049	2.2	40	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BSPBX3330ZEE	0.33	1200	630	1568	518	5.0	19	18	33	32	/	/	/	/	/	/	31	/
C4BSPBX3330Z_F_	0.33	1200	630	965	319	9.5	15	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSPBX3470Z_F_	0.47	1200	630	965	454	6.7	18	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSPBX3680Z_F_	0.68	1200	630	965	656	4.7	21	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSPBX4100Z_J_	1	1200	630	965	965	3.3	27	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BSPBX4120Z_J_	1.2	1200	630	965	1158	2.8	29	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BSPBX4150Z_L_	1.5	1200	630	965	1448	2.3	34	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BSPBX4200Z_M_	2	1200	630	598	1195	3.6	29	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSPBX4220Z_M_	2.2	1200	630	598	1315	3.3	30	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSPBX4250Z_M_	2.5	1200	630	598	1494	2.9	32	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSPBX4300Z_N_	3	1200	630	598	1793	2.5	37	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BSPBX4330Z_N_	3.3	1200	630	598	1972	2.3	39	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BSWBX3100ZEE	0.1	2000	700	2241	224	12.9	12	18	33	32	/	/	/	/	/	/	31	/
C4BSWBX3100Z_F_	0.1	2000	700	1379	138	23.3	10	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSWBX3150ZEE	0.15	2000	700	2241	336	8.6	15	18	33	32	/	/	/	/	/	/	31	/
C4BSWBX3150Z_F_	0.15	2000	700	1379	207	15.6	12	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSWBX3220Z_F_	0.22	2000	700	1379	303	10.7	14	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSWBX3330Z_F_	0.33	2000	700	1379	455	7.2	17	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSWBX3470Z_F_	0.47	2000	700	1379	648	5.1	20	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSWBX3680Z_H_	0.68	2000	700	1379	938	3.6	26	24	44	41.5	25.5	10.5	23	6	18	6	/	/
C4BSWBX3820Z_L_	0.82	2000	700	1379	1131	3.0	30	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BSWBX4100Z_M_	1	2000	700	854	854	5.1	24	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSWBX4120Z_M_	1.2	2000	700	854	1024	4.3	26	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSWBX4150Z_N_	1.5	2000	700	854	1280	3.5	31	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BSYBX2470ZEE	0.047	3000	750	3361	158	21.9	10	18	33	32	/	/	/	/	/	/	31	/
C4BSYBX2470Z_F_	0.047	3000	750	2068	97	36.6	8	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSYBX2680ZEE	0.068	3000	750	3361	229	15.2	12	18	33	32	/	/	/	/	/	/	31	/
C4BSYBX2680Z_F_	0.068	3000	750	2068	141	25.4	10	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSYBX3100Z_F_	0.1	3000	750	2068	207	17.3	12	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSYBX3220Z_F_	0.22	3000	750	2068	455	8.0	17	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BSYBX3330Z_L_	0.33	3000	750	2068	683	5.4	24	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BSYBX3470Z_M_	0.47	3000	750	1280	602	7.5	20	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BSYBX3680Z_N_	0.68	3000	750	1280	871	5.3	23	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BSYBX3820Z_N_	0.82	3000	750	1280	1050	4.4	28	35	50	57.5	41	25.5	38	21	/	/	/	/

### Peak voltage table

Un	250 V	400 V	600 V	700 V	850 V
U <sub>max</sub>	400 V	600 V	800 V	1000 V	1200 V

### GENERAL CHARACTERISTICS

Code	C μF	Un Vdc	U <sub>RMS</sub> Vac	dv/dt V/μs	I <sub>PKR</sub> A	ESR typ. @ 100 kHz (mΩ)	I <sub>RMS</sub> 100 kHz @ 70°C (A)	DIMENSIONS (mm)										
								ALL STYLES					STYLE					
								"A"	"A"	"B"	"B"	"C-D"	"C-D"	"E"	"E"			
								B	H	L	P	P1	P	P1	P	P1		
C4BTDBX4470ZEE_	4.7	250	160	59	279	2.6	22	18	33	32	/	/	/	/	/	/	31	/
C4BTDBX4680ZEE_	6.8	250	160	59	403	1.9	26	18	33	32	/	/	/	/	/	/	31	/
C4BTDBX5100Z_F_	10	250	160	40	402	2.6	27	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTDBX5150Z_F_	15	250	160	40	602	1.8	32	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTDBX5200Z_J_	20	250	160	40	803	1.4	39	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BTDBX5250Z_H_	25	250	160	40	1004	1.2	43	24	44	41.5	25.5	10.5	23	6	18	6	/	/
C4BTDBX5300Z_L_	30	250	160	40	1205	1.0	50	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BTDBX5400Z_M_	40	250	160	27	1082	1.5	46	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BTDBX5500Z_N_	50	250	160	27	1353	1.2	54	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BTDBX5600Z_N_	60	250	160	27	1624	1.1	58	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BTFBX4330ZEE_	3.3	400	250	74	245	3.0	21	18	33	32	/	/	/	/	/	/	31	/
C4BTFBX4400ZEE_	4	400	250	74	296	2.5	23	18	33	32	/	/	/	/	/	/	31	/
C4BTFBX4400Z_F_	4	400	250	50	201	4.9	19	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTFBX4500ZEE_	5	400	250	74	370	2.0	25	18	33	32	/	/	/	/	/	/	31	/
C4BTFBX4500Z_F_	5	400	250	50	251	4.0	22	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTFBX4680Z_F_	6.8	400	250	50	341	3.0	25	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTFBX5100Z_F_	10	400	250	50	502	2.1	30	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTFBX5125Z_J_	12.5	400	250	50	627	1.7	35	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BTFBX5150Z_J_	15	400	250	50	753	1.5	38	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BTFBX5200Z_L_	20	400	250	50	1004	1.2	46	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BTFBX5250Z_M_	25	400	250	34	846	1.8	41	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BTFBX5300Z_M_	30	400	250	34	1015	1.6	45	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BTFBX5350Z_N_	35	400	250	34	1184	1.4	52	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BTFBX5400Z_N_	40	400	250	34	1353	1.2	54	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BTHBX4250ZEE_	2.5	600	330	104	259	2.9	21	18	33	32	/	/	/	/	/	/	31	/
C4BTHBX4250Z_F_	2.5	600	330	70	176	5.7	18	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTHBX4300Z_F_	3	600	330	70	211	4.8	20	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTHBX4400Z_F_	4	600	330	70	281	3.6	23	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTHBX4500Z_F_	5	600	330	70	351	2.9	25	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTHBX4680Z_J_	6.8	600	330	70	478	2.2	31	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BTHBX4800Z_H_	8	600	330	70	562	1.9	34	24	44	41.5	25.5	10.5	23	6	18	6	/	/
C4BTHBX5100Z_L_	10	600	330	70	703	1.6	40	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BTHBX5125Z_M_	12.5	600	330	47	592	2.5	35	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BTHBX5150Z_M_	15	600	330	47	710	2.1	38	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BTHBX5200Z_N_	20	600	330	47	947	1.7	47	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BTJBX4150ZEE_	1.5	700	400	119	178	4.2	18	18	33	32	/	/	/	/	/	/	31	/
C4BTJBX4150Z_F_	1.5	700	400	80	120	8.2	15	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTJBX4200ZEE_	2	700	400	119	237	3.2	20	18	33	32	/	/	/	/	/	/	31	/
C4BTJBX4200Z_F_	2	700	400	80	161	6.2	17	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTJBX4220Z_F_	2.2	700	400	80	177	5.7	18	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTJBX4300Z_F_	3	700	400	80	241	4.2	21	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTJBX4400Z_F_	4	700	400	80	321	3.2	24	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTJBX4500Z_J_	5	700	400	80	402	2.6	29	28	37	42.5	25.5	10.5	23	6	18	6	/	/
C4BTJBX4800Z_L_	8	700	400	80	642	1.7	38	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BTJBX5100Z_M_	10	700	400	54	541	2.7	34	30	45	57.5	41	25.5	38	21	/	/	/	/
C4BTJBX5150Z_N_	15	700	400	54	812	1.9	44	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BTMBX4100ZEE_	1	850	450	148	148	5.1	16	18	33	32	/	/	/	/	/	/	31	/
C4BTMBX4100Z_F_	1	850	450	100	100	9.9	14	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTMBX4150Z_F_	1.5	850	450	100	151	6.7	17	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTMBX4200Z_F_	2	850	450	100	201	5.1	19	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTMBX4300Z_F_	3	850	450	100	301	3.4	23	20	40	41.5	25.5	10.5	23	6	18	6	31	/
C4BTMBX4400Z_H_	4	850	450	100	402	2.6	29	24	44	41.5	25.5	10.5	23	6	18	6	/	/
C4BTMBX4500Z_L_	5	850	450	100	502	2.2	34	30	45	42	25.5	10.5	23	6	18	6	/	/
C4BTMBX4800Z_N_	8	850	450	68	541	2.8	37	35	50	57.5	41	25.5	38	21	/	/	/	/
C4BTMBX5100Z_N_	10	850	450	68	677	2.3	40	35	50	57.5	41	25.5	38	21	/	/	/	/