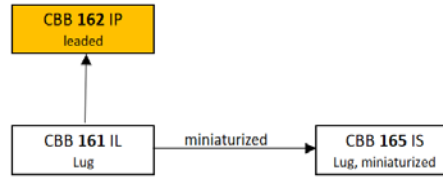




Polypropylene Film Capacitors for Snubber Applications

Features

- Very low dissipation factor
- Highest peak pulse capability
- Double-sided metallized electrodes
- Design for Snubber Application
- Metal sprayed contacts for low ESL
- Self-healing



Applications

- High pulse and high frequency circuits
- IGBT applications

Item	Characteristics
Climatic Category	40/105/56 (IEC 61071)
Operating Temperature	-40 ~ +105 °C ($\theta_{\text{hotspot}} \leq 105 \text{ °C}$) $\theta_{\text{hotspot}} = 85\text{--}105\text{ °C}$: Voltage Derating of 1,35% per °C for U_{RDC}
Storage Temperature	-40 ~ +105 °C
DC Voltage Rating $U_{\text{R,DC}}$	630 ~ 2000 V _{DC}
Capacitance Range	0,001 ~ 7,5 μF
Capacitance Tolerance	$\pm 10 \%$ (K), $\pm 5 \%$ (J)
Voltage between Terminals U_{TT}	1,5 * U_{RDC} (20 °C, 10 s)
Voltage between Terminals and Case U_{TC}	3000 V _{AC} (20 °C, 50 Hz, 10 s)
Capacitor Dissipation Factor	$\tan \delta \leq 5 * 10^{-4}$ (20 °C, 1 kHz)
Dielectric Dissipation Factor	$\tan \delta_o \leq 2 * 10^{-4}$ (20 °C, 1 kHz)
Insulation Resistance	$\geq 30.000 \text{ M}\Omega * \mu\text{F}$ (20 °C, 100 V _{DC} , 1 min)
Life Time Expectancy	$\geq 100.000 \text{ h}$, Failure Rate $\leq 100 \text{ FIT}$ (70 °C)
Reference Standard	IEC 61071:2007, REACH, RoHS

Ratings for CBB 162 IP Series

U_R (V)	C_R (μ F)	dV/dt 20 °C (V/ μ S)	$\hat{i}^{(1)}$ (A)	$R_s^{(2)}$ 100kHz 20 °C (m Ω)	$I_{max}^{(3)}$ 100kHz 70 °C (A)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P_1 ± 0.5 (mm)	P_2 ± 0.5 (mm)	ϕd ± 0.05 (mm)	Ordering Code
630V _{DC} 2J	0.0039	3000	11.7	-	-	13.0	9.0	4.0	10.0	-	0,6	FCS2JIP392*BC21000AE3
	0.0047	3000	14.1	-	-	13.0	9.0	4.0	10.0	-	0,6	FCS2JIP472*BC21000AE3
	0.0056	3000	16.8	-	-	13.0	9.0	4.0	10.0	-	0,6	FCS2JIP562*BC21000AE3
	0.0068	3000	20.4	-	-	13.0	9.0	4.0	10.0	-	0,6	FCS2JIP682*BC21000AE3
	0.0082	3000	24.6	-	-	13.0	9.0	4.0	10.0	-	0,6	FCS2JIP822*BC21000AE3
	0.010	3000	30.0	-	-	13.0	11.0	5.0	10.0	-	0,6	FCS2JIP103*BC41000AE3
	0.010	2500	25.0	-	-	18.0	11.0	5.0	15.0	-	0,6	FCS2JIP103*BE21500AE3
	0.012	2500	30.0	-	-	18.0	11.0	5.0	15.0	-	0,6	FCS2JIP123*BE21500AE3
	0.012	3000	36.0	-	-	13.0	11.0	5.0	10.0	-	0,6	FCS2JIP123*BC41000AE3
	0.015	2500	37.5	-	-	18.0	11.0	5.0	15.0	-	0,6	FCS2JIP153*BE21500AE3
	0.015	3000	45.0	-	-	13.0	12.0	6.0	10.0	-	0,6	FCS2JIP153*BC51000AE3
	0.018	2500	45.0	-	-	18.0	11.0	5.0	15.0	-	0,6	FCS2JIP183*BE21500AE3
	0.018	3000	54.0	-	-	13.0	12.0	6.0	10.0	-	0,6	FCS2JIP183*BC51000AE3
	0.020	2500	50.0	-	-	18.0	11.0	5.0	15.0	-	0,6	FCS2JIP203*BE21500AE3
	0.020	3000	60.0	-	-	13.0	13.0	7.0	10.0	-	0,6	FCS2JIP203*BC81000AE3
	0.022	3000	66.0	-	-	13.0	13.0	7.0	10.0	-	0,6	FCS2JIP223*BC81000AE3
	0.022	2500	55.0	-	-	18.0	11.0	5.0	15.0	-	0,6	FCS2JIP223*BE21500AE3
	0.027	2500	67.5	-	-	18.0	12.0	6.0	15.0	-	0,6	FCS2JIP273*BE51500AE3
	0.033	2500	82.5	-	-	18.0	12.0	6.0	15.0	-	0,6	FCS2JIP333*BE51500AE3
	0.039	2500	97.5	-	-	18.0	12.0	6.0	15.0	-	0,6	FCS2JIP393*BE51500AE3
	0.047	2500	117	-	-	18.0	13.5	7.5	15.0	-	0,8	FCS2JIP473*BE71500BE3
	0.056	2500	140	-	-	18.0	13.5	7.5	15.0	-	0,8	FCS2JIP563*BE71500BE3
	0.068	2500	170	-	-	18.0	14.5	8.5	15.0	-	0,8	FCS2JIP683*BE81500BE3
	0.082	2500	205	-	-	18.0	16.0	10.0	15.0	-	0,8	FCS2JIP823*BEC1500BE3
	0.10	2500	250	-	-	18.0	16.0	10.0	15.0	-	0,8	FCS2JIP104*BEC1500BE3
	0.12	2500	300	-	-	18.0	19.0	11.0	15.0	-	0,8	FCS2JIP124*BE71500BE3
	0.12	1500	180	-	-	26.0	16.5	7.0	22.5	-	0,8	FCS2JIP124*BB22200BE3
	0.15	1500	225	-	-	26.0	17.0	8.5	22.5	-	0,8	FCS2JIP154*BB32200BE3
	0.18	1500	270	-	-	26.0	17.0	8.5	22.5	-	0,8	FCS2JIP184*BB32200BE3
	0.22	1500	330	-	-	26.0	19.0	10.0	22.5	-	0,8	FCS2JIP224*BB42200BE3
	0.27	1500	405	-	-	26.0	20.0	11.0	22.5	-	0,8	FCS2JIP274*BB52200BE3
	0.33	1500	495	-	-	26.0	20.0	11.0	22.5	-	0,8	FCS2JIP334*BB52200BE3
	0.39	1500	585	-	-	26.0	22.0	13.0	22.5	-	0,8	FCS2JIP394*BB62200BE3
0.47	900	423	-	-	32.0	22.0	13.0	27.5	-	0,8	FCS2JIP474*BI72700BE3	
0.56	900	504	-	-	32.0	22.0	13.0	27.5	-	0,8	FCS2JIP564*BI72700BE3	
0.68	900	612	-	-	32.0	25.0	13.0	27.5	-	0,8	FCS2JIP684*BI82700BE3	
0.82	900	738	-	-	32.0	28.0	14.0	27.5	-	0,8	FCS2JIP824*BIC2700BE3	
1.0	900	900	-	-	32.0	33.0	18.0	27.5	-	0,8	FCS2JIP105*BIF2700BE3	
1.2	900	1080	-	-	32.0	33.0	18.0	27.5	-	0,8	FCS2JIP125*BIF2700BE3	
1.5	900	1350	-	-	32.0	37.0	22.0	27.5	-	0,8	FCS2JIP155*BII2700BE3	
1.8	900	1620	-	-	32.0	37.0	22.0	27.5	-	0,8	FCS2JIP185*BII2700BE3	

(1) Maximum permissible peak current

(2) Series resistance at 20°C ambient temperature

(3) Maximum permissible r.m.s. ripple current

*** to be defined, see ordering code table
Customized products are available on request

U_R (V)	C_R (μ F)	dV/dt t 20 °C (V/ μ s)	$\hat{i}^{(1)}$ (A)	$R_s^{(2)}$ 100 kHz 20 °C (m Ω)	$I_{max}^{(3)}$ 100kHz 70 °C (A)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P_1 ± 0.5 (mm)	P_2 ± 0.5 (mm)	ϕd ± 0.05 (mm)	Ordering Code
700V _{DC} 2Q	1.2	325	390	10	12.4	42.5	28	24	37.5	10.2	1.2	FCS2QIP125*AFA3710DE3
	1.8	325	585	8	16.8	42.5	36	24	37.5	10.2	1.2	FCS2QIP185*AFD3710DE3
	2.2	325	715	7	18.8	42.5	33	33	37.5	20.3	1.2	FCS2QIP225*AFB3720DE3
	2.5	325	813	6	20.3	42.5	35.5	33.5	37.5	20.3	1.2	FCS2QIP255*AFC3720DE3
	3.00	325	975	5	22.4	42.5	45	30	37.5	20.3	1.2	FCS2QIP305*AFF3720DE3
	4.00	325	1300	4	25	42.5	43	42	37.5	20.3	1.2	FCS2QIP405*AFE3720DE3
	4.20	260	1092	3	26	57.5	43.5	29.5	52.5	20.3	1.2	FCS2QIP425*AHG5220DE3
	4.50	260	1170	3	26	57.5	45	30	52.5	20.3	1.2	FCS2QIP455*AHH5220DE3
	5.00	260	1300	3	27	57.5	45	35	52.5	20.3	1.2	FCS2QIP505*AHJ5220DE3
	5.50	260	1430	2	27	57.5	50	35	52.5	20.3	1.2	FCS2QIP555*AHL5220DE3
	6.00	260	1560	2	28	57.5	45	45	52.5	20.3	1.2	FCS2QIP605*AHK5220DE3
7.50	260	1950	2	30	57.5	55	40	52.5	20.3	1.2	FCS2QIP755*AHM5220DE3	
850V _{DC} K2	0.47	650	306	10	11.5	42.5	28.0	24.0	37.5	10.2	1.2	FCSK2IP474*AFA3710DE3
	0.70	650	455	10	15.3	42.5	36.0	24.0	37.5	10.2	1.2	FCSK2IP704*AFD3710DE3
	0.80	650	520	9	17.2	42.5	33.0	33.0	37.5	20.3	1.2	FCSK2IP804*AFB3720DE3
	0.80	650	520	10	11.8	42.5	28.0	24.0	37.5	10.2	1.2	FCSK2IP804*AFA3710DE3
	1.0	650	650	8	18.6	42.5	35.5	33.5	37.5	20.3	1.2	FCSK2IP105*AFC3720DE3
	1.2	650	780	7	20.6	42.5	45.0	30.0	37.5	20.3	1.2	FCSK2IP125*AFF3720DE3
	1.2	650	780	9	15.6	42.5	36.0	24.0	37.5	10.2	1.2	FCSK2IP125*AFD3710DE3
	1.5	650	975	6	22.0	42.5	43.0	42.0	37.5	20.3	1.2	FCSK2IP155*AFE3720DE3
	1.5	455	683	6	22.0	57.5	43.5	29.5	52.5	20.3	1.2	FCSK2IP155*AHG5220DE3
	1.5	650	975	8	17.6	42.5	33.0	33.0	37.5	20.3	1.2	FCSK2IP155*AFB3720DE3
	1.8	455	819	6	23.0	57.5	45.0	30.0	52.5	20.3	1.2	FCSK2IP185*AHH5220DE3
	1.8	650	1170	7	19.8	42.5	35.5	33.5	37.5	20.3	1.2	FCSK2IP185*AFC3720DE3
	2.0	455	910	5	24.0	57.5	45.0	35.0	52.5	20.3	1.2	FCSK2IP205*AHJ5220DE3
	2.2	455	1001	5	24.0	57.5	50.0	35.0	52.5	20.3	1.2	FCSK2IP225*AHL5220DE3
	2.2	650	1430	6	21.5	42.5	45.0	30.0	37.5	20.3	1.2	FCSK2IP225*AFF3720DE3
	2.5	455	1138	4	25.0	57.5	45.0	45.0	52.5	20.3	1.2	FCSK2IP255*AHK5220DE3
	2.8	650	1820	5	24.0	42.5	43.0	42.0	37.5	20.3	1.2	FCSK2IP285*AFE3720DE3
	3.0	455	1365	4	26.0	57.5	55.0	40.0	52.5	20.3	1.2	FCSK2IP305*AHM5220DE3
	3.0	455	1365	4	24.0	57.5	43.5	29.5	52.5	20.3	1.2	FCSK2IP305*AHG5220DE3
	3.0	455	1365	4	25.0	57.5	45.0	30.0	52.5	20.3	1.2	FCSK2IP305*AHH5220DE3
3.5	455	1592	4	25.0	57.5	45.0	35.0	52.5	20.3	1.2	FCSK2IP355*AHJ5220DE3	
4.5	455	2047	3	27.0	57.5	50.0	35.0	52.5	20.3	1.2	FCSK2IP455*AHL5220DE3	
5.0	455	2275	3	27.0	57.5	45.0	45.0	52.5	20.3	1.2	FCSK2IP505*AHK5220DE3	
5.0	455	2275	2	29.0	57.5	55.0	40.0	52.5	20.3	1.2	FCSK2IP505*AHM5220DE3	
1000V _{DC} 3A	0.0039	3000	11.7	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3AIP392*BC21000AE3
	0.0047	3000	14.1	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3AIP472*BC21000AE3
	0.0056	3000	16.8	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3AIP562*BC21000AE3
	0.0068	3000	20.4	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3AIP682*BC21000AE3
	0.0082	3000	24.6	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3AIP822*BC21000AE3
	0.010	2500	25.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3AIP103*BE21500AE3
	0.010	3000	30.0	-	-	13.0	11.0	5.0	10.0	-	0.6	FCS3AIP103*BC41000AE3
	0.012	2500	30.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3AIP123*BE21500AE3
	0.012	3000	36.0	-	-	13.0	11.0	5.0	10.0	-	0.6	FCS3AIP123*BC41000AE3
	0.015	2500	37.5	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3AIP153*BE21500AE3
	0.015	3000	45.0	-	-	13.0	12.0	6.0	10.0	-	0.6	FCS3AIP153*BC51000AE3
	0.018	2500	45.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3AIP183*BE21500AE3
	0.018	3000	54.0	-	-	13.0	12.0	6.0	10.0	-	0.6	FCS3AIP183*BC51000AE3
	0.020	2500	50.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3AIP203*BE21500AE3
	0.020	3000	60.0	-	-	13.0	13.0	7.0	10.0	-	0.6	FCS3AIP203*BC81000AE3
	0.022	3000	66.0	-	-	13.0	13.0	7.0	10.0	-	0.6	FCS3AIP223*BC81000AE3
	0.022	2500	55.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3AIP223*BE21500AE3
	0.027	2500	67.5	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3AIP273*BE51500AE3
0.033	2500	82.5	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3AIP333*BE51500AE3	
0.039	2500	97.5	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3AIP393*BE51500AE3	

(1) Maximum permissible peak current

(2) Series resistance at 20°C ambient temperature

(3) Maximum permissible r.m.s. ripple current

**** to be defined, see ordering code table
Customized products are available on request

U_R (V)	C_R (μF)	dV/dt 20 °C (V/ μs)	$\hat{i}^{(1)}$ (A)	$R_s^{(2)}$ 100kHz 20 °C (m Ω)	$I_{max}^{(3)}$ 100kHz 70 °C (A)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P_1 ± 0.5 (mm)	P_2 ± 0.5 (mm)	ϕd ± 0.05 (mm)	Ordering Code
1000V _{DC} 3A	0.047	2500	117.5	-	-	18.0	13.5	7.5	15.0	-	0.8	FCS3AIP473*BE71500BE3
	0.056	2500	140	-	-	18.0	13.5	7.5	15.0	-	0.8	FCS3AIP563*BE71500BE3
	0.068	2500	170	-	-	18.0	14.5	8.5	15.0	-	0.8	FCS3AIP683*BE81500BE3
	0.082	2500	205	-	-	18.0	16.0	10.0	15.0	-	0.8	FCS3AIP823*BE81500BE3
	0.10	2500	250	-	-	18.0	16.0	10.0	15.0	-	0.8	FCS3AIP104*BE81500BE3
	0.12	2500	300	-	-	18.0	19.0	11.0	15.0	-	0.8	FCS3AIP124*BE81500BE3
	0.12	1500	180	-	-	26.0	16.5	7.0	22.5	-	0.8	FCS3AIP124*BB22200BE3
	0.15	1500	225	-	-	26.0	17.0	8.5	22.5	-	0.8	FCS3AIP154*BB32200BE3
	0.18	1500	270	-	-	26.0	17.0	8.5	22.5	-	0.8	FCS3AIP184*BB32200BE3
	0.22	1500	330	-	-	26.0	19.0	10.0	22.5	-	0.8	FCS3AIP224*BB42200BE3
	0.27	1500	405	-	-	26.0	20.0	11.0	22.5	-	0.8	FCS3AIP274*BB52200BE3
	0.33	1500	495	-	-	26.0	20.0	11.0	22.5	-	0.8	FCS3AIP334*BB52200BE3
	0.39	1500	585	-	-	26.0	22.0	13.0	22.5	-	0.8	FCS3AIP394*BB62200BE3
	0.47	900	423	-	-	32.0	22.0	13.0	27.5	-	0.8	FCS3AIP474*BII2700BE3
	0.56	900	504	-	-	32.0	22.0	13.0	27.5	-	0.8	FCS3AIP564*BII2700BE3
	0.65	500	325	10	11.6	42.5	28.0	24.0	37.5	10.2	1.2	FCS3AIP654*AFA3710DE3
	0.68	900	612	-	-	32.0	25.0	13.0	27.5	-	0.8	FCS3AIP684*BII2700BE3
	0.82	900	738	-	-	32.0	28.0	14.0	27.5	-	0.8	FCS3AIP824*BIC2700BE3
	1.0	900	900	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3AIP105*BIF2700BE3
	1.0	500	500	9	15.5	42.5	36.0	24.0	37.5	10.2	1.2	FCS3AIP105*AFD3710DE3
	1.2	900	1080	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3AIP125*BIF2700BE3
	1.2	500	600	8	17.5	42.5	33.0	33.0	37.5	20.3	1.2	FCS3AIP125*AFB3720DE3
	1.4	500	700	7	18.8	42.5	35.5	33.5	37.5	20.3	1.2	FCS3AIP145*AF3720DE3
	1.5	900	1350	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3AIP155*BII2700BE3
	1.8	900	1620	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3AIP185*BII2700BE3
	1.8	500	900	6	21.0	42.5	45.0	30.0	37.5	20.3	1.2	FCS3AIP185*AFF3720DE3
	2.2	500	1100	5	23.0	42.5	43.0	42.0	37.5	20.3	1.2	FCS3AIP225*AFE3720DE3
	2.2	350	770	6	23.0	57.5	43.5	29.5	52.5	20.3	1.2	FCS3AIP225*AHG5220DE3
2.5	350	875	5	24.0	57.5	45.0	30.0	52.5	20.3	1.2	FCS3AIP255*AHH5220DE3	
3.0	350	1050	5	24.0	57.5	45.0	35.0	52.5	20.3	1.2	FCS3AIP305*AHJ5220DE3	
3.3	350	1155	4	25.0	57.5	50.0	35.0	52.5	20.3	1.2	FCS3AIP335*AHL5220DE3	
3.5	350	1225	4	25.0	57.5	45.0	45.0	52.5	20.3	1.2	FCS3AIP355*AHK5220DE3	
4.5	350	1575	4	28.0	57.5	55.0	40.0	52.5	20.3	1.2	FCS3AIP455*AHM5220DE3	
1200V _{DC} 3B	0.0010	4800	4.8	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3BIP102*BC21000AE3
	0.0012	4800	5.8	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3BIP122*BC21000AE3
	0.0015	4800	7.2	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3BIP152*BC21000AE3
	0.0018	4800	8.6	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3BIP182*BC21000AE3
	0.0022	4800	10.6	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3BIP222*BC21000AE3
	0.0027	4800	13.0	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3BIP272*BC21000AE3
	0.0033	4800	15.8	-	-	13.0	9.0	4.0	10.0	-	0.6	FCS3BIP332*BC21000AE3
	0.0039	4800	18.7	-	-	13.0	11.0	5.0	10.0	-	0.6	FCS3BIP392*BC41000AE3
	0.0047	4800	22.6	-	-	13.0	11.0	5.0	10.0	-	0.6	FCS3BIP472*BC41000AE3
	0.0056	4800	26.9	-	-	13.0	11.0	5.0	10.0	-	0.6	FCS3BIP562*BC41000AE3
	0.0068	4800	32.6	-	-	13.0	11.0	5.0	10.0	-	0.6	FCS3BIP682*BC41000AE3
	0.0082	4800	39.4	-	-	13.0	11.0	5.0	10.0	-	0.6	FCS3BIP822*BC41000AE3
	0.0100	3300	33.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3BIP103*BE21500AE3
	0.012	3300	39.6	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3BIP123*BE21500AE3
	0.015	3300	49.5	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3BIP153*BE21500AE3
	0.018	3300	59.4	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3BIP183*BE21500AE3
	0.020	3300	66.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3BIP203*BE21500AE3
	0.022	3300	72.6	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3BIP223*BE51500AE3
	0.027	3300	89.1	-	-	18.0	13.5	7.5	15.0	-	0.8	FCS3BIP273*BE71500BE3
	0.033	3300	108.9	-	-	18.0	13.5	7.5	15.0	-	0.8	FCS3BIP333*BE71500BE3
0.039	3300	128.7	-	-	18.0	14.5	8.5	15.0	-	0.8	FCS3BIP393*BE81500BE3	

(1) Maximum permissible peak current

(2) Series resistance at 20°C ambient temperature

(3) Maximum permissible r.m.s. ripple current

**** to be defined, see ordering code table
Customized products are available on request

U_R (V)	C_R (μF)	dV/dt 20 °C (V/ μs)	$\hat{i}^{(1)}$ (A)	$R_s^{(2)}$ 100kHz 20 °C (m Ω)	$I_{max}^{(3)}$ 100kHz 70 °C (A)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P_1 ± 0.5 (mm)	P_2 ± 0.5 (mm)	ϕd ± 0.05 (mm)	Ordering Code
1200V _{DC} 3B	0.047	2200	103.4	-	-	26.0	16.5	7.0	22.5	-	0.8	FCS3BIP473*BB22200BE3
	0.056	2200	123.2	-	-	26.0	16.5	7.0	22.5	-	0.8	FCS3BIP563*BB22200BE3
	0.068	2200	149.6	-	-	26.0	17.0	8.5	22.5	-	0.8	FCS3BIP683*BB32200BE3
	0.082	2200	180.4	-	-	26.0	19.0	10.0	22.5	-	0.8	FCS3BIP823*BB42200BE3
	0.10	2200	220	-	-	26.0	19.0	10.0	22.5	-	0.8	FCS3BIP104*BB42200BE3
	0.12	2200	264	-	-	26.0	20.0	11.0	22.5	-	0.8	FCS3BIP124*BB52200BE3
	0.15	2200	330	-	-	26.0	22.0	13.0	22.5	-	0.8	FCS3BIP154*BB62200BE3
	0.18	1000	180	-	-	32.0	20.0	11.0	27.5	-	0.8	FCS3BIP184*BI42700BE3
	0.22	1000	220	-	-	32.0	22.0	13.0	27.5	-	0.8	FCS3BIP224*BI72700BE3
	0.27	1000	270	-	-	32.0	25.0	13.0	27.5	-	0.8	FCS3BIP274*BI82700BE3
	0.33	1000	330	-	-	32.0	28.0	14.0	27.5	-	0.8	FCS3BIP334*BIC2700BE3
	0.33	800	264	11.0	11.4	42.5	28.0	24.0	37.5	10.2	1.2	FCS3BIP334*AFA3710DE3
	0.39	1000	390	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3BIP394*BIF2700BE3
	0.47	800	376	10.0	11.5	42.5	28.0	24.0	37.5	10.2	1.2	FCS3BIP474*AFA3710DE3
	0.50	800	400	10.0	15.0	42.5	36.0	24.0	37.5	10.2	1.2	FCS3BIP504*AFD3710DE3
	0.56	1000	560	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3BIP564*BII2700BE3
	0.60	800	480	9.0	16.8	42.5	33.0	33.0	37.5	20.3	1.2	FCS3BIP604*AFB3720DE3
	0.68	1000	680	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3BIP684*BII2700BE3
	0.70	800	560	10.0	15.3	42.5	36.0	24.0	37.5	10.2	1.2	FCS3BIP704*AFD3710DE3
	0.70	800	560	9.0	18.4	42.5	35.5	33.5	37.5	20.3	1.2	FCS3BIP704*AFC3720DE3
	0.80	800	640	8.0	20.5	42.5	45.0	30.0	37.5	20.3	1.2	FCS3BIP804*AFF3720DE3
	0.80	800	640	9.0	17.2	42.5	33.0	33.0	37.5	20.3	1.2	FCS3BIP804*AFB3720DE3
	1.0	800	800	7.0	21.0	42.5	43.0	42.0	37.5	20.3	1.2	FCS3BIP105*AFE3720DE3
	1.0	560	560	6.0	22.0	57.5	43.5	29.5	52.5	20.3	1.2	FCS3BIP105*AHG5220DE3
	1.0	800	800	8.0	18.6	42.5	35.5	33.5	37.5	20.3	1.2	FCS3BIP105*AFB3720DE3
	1.2	560	672	6.0	22.0	57.5	45.0	30.0	52.5	20.3	1.2	FCS3BIP125*AHH5220DE3
	1.2	800	960	7.0	20.6	42.5	45.0	30.0	37.5	20.3	1.2	FCS3BIP125*AFF3720DE3
	1.4	560	784	5.0	23.0	57.5	45.0	35.0	52.5	20.3	1.2	FCS3BIP145*AHJ5220DE3
	1.5	800	1200	6.0	22.0	42.5	43.0	42.0	37.5	20.3	1.2	FCS3BIP155*AFE3720DE3
	1.5	560	840	6.0	22.0	57.5	43.5	29.5	52.5	20.3	1.2	FCS3BIP155*AHG5220DE3
1.6	560	896	5.0	23.0	57.5	50.0	35.0	52.5	20.3	1.2	FCS3BIP165*AHL5220DE3	
1.7	560	952	4.0	24.0	57.5	45.0	45.0	52.5	20.3	1.2	FCS3BIP175*AHK5220DE3	
1.8	560	1008	6.0	23.0	57.5	45.0	30.0	52.5	20.3	1.2	FCS3BIP185*AHH5220DE3	
2.0	560	1120	5.0	24.0	57.5	45.0	35.0	52.5	20.3	1.2	FCS3BIP205*AHJ5220DE3	
2.0	560	1120	4.0	25.0	57.5	55.0	40.0	52.5	20.3	1.2	FCS3BIP205*AHM5220DE3	
2.2	560	1232	5.0	24.0	57.5	50.0	35.0	52.5	20.3	1.2	FCS3BIP225*AHL5220DE3	
2.5	560	1400	4.0	25.0	57.5	45.0	45.0	52.5	20.3	1.2	FCS3BIP255*AHK5220DE3	
3.0	560	1680	4.0	26.0	57.5	55.0	40.0	52.5	20.3	1.2	FCS3BIP305*AHM5220DE3	
1600V _{DC} 3C	0.0056	6000	33.6	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3CIP562*BE21500AE3
	0.0068	6000	40.8	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3CIP682*BE21500AE3
	0.0082	6000	49.2	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3CIP822*BE21500AE3
	0.010	6000	60.0	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3CIP103*BE21500AE3
	0.012	6000	72.0	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3CIP123*BE51500AE3
	0.015	6000	90.0	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3CIP153*BE51500AE3
	0.018	6000	108	-	-	18.0	13.5	7.5	15.0	-	0.8	FCS3CIP183*BE71500BE3
	0.022	6000	132	-	-	18.0	13.5	7.5	15.0	-	0.8	FCS3CIP223*BE71500BE3
	0.027	6000	162	-	-	18.0	14.5	8.5	15.0	-	0.8	FCS3CIP273*BE81500BE3
	0.033	6000	198	-	-	18.0	14.5	8.5	15.0	-	0.8	FCS3CIP333*BE81500BE3
	0.039	3000	117	-	-	26.0	16.5	7.0	22.5	-	0.8	FCS3CIP393*BB22200BE3
	0.047	3000	141	-	-	26.0	16.5	7.0	22.5	-	0.8	FCS3CIP473*BB22200BE3
	0.056	3000	168	-	-	26.0	17.0	8.5	22.5	-	0.8	FCS3CIP563*BB32200BE3
	0.068	3000	204	-	-	26.0	19.0	10.0	22.5	-	0.8	FCS3CIP683*BB42200BE3
	0.082	3000	246	-	-	26.0	19.0	10.0	22.5	-	0.8	FCS3CIP823*BB42200BE3
0.10	3000	300	-	-	26.0	20.0	11.0	22.5	-	0.8	FCS3CIP104*BB52200BE3	
0.12	2000	240	-	-	32.0	22.0	13.0	27.5	-	0.8	FCS3CIP124*BI72700BE3	

(1) Maximum permissible peak current

(2) Series resistance at 20°C ambient temperature

(3) Maximum permissible r.m.s. ripple current

*** to be defined, see ordering code table

Customized products are available on request

U_R (V)	C_R (μF)	dV/dt 20 °C (V/ μS)	$\hat{i}^{(1)}$ (A)	$R_s^{(2)}$ 100kHz 20 °C (m Ω)	$I_{max}^{(3)}$ 100kHz 70 °C (A)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P_1 ± 0.5 (mm)	P_2 ± 0.5 (mm)	ϕd ± 0.05 (mm)	Ordering Code
1600V _{DC} 3C	0.15	2000	300	-	-	32.0	25.0	13.0	27.5	-	0.8	FCS3CIP154*BI82700BE3
	0.18	2000	360	-	-	32.0	28.0	14.0	27.5	-	0.8	FCS3CIP184*BIC2700BE3
	0.22	2000	440	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3CIP224*BIF2700BE3
	0.27	2000	540	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3CIP274*BIF2700BE3
	0.33	2000	660	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3CIP334*BIF2700BE3
	0.33	800	264	11	11.4	42.5	28.0	24.0	37.5	10.2	1.2	FCS3CIP334*AFA3710DE3
	0.39	2000	780	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3CIP394*BII2700BE3
	0.47	2000	940	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3CIP474*BII2700BE3
	0.50	800	376	10	15.0	42.5	36.0	24.0	37.5	10.2	1.2	FCS3CIP504*AFD3710DE3
	0.60	800	480	9	16.8	42.5	33.0	33.0	37.5	20.3	1.2	FCS3CIP604*AFB3720DE3
	0.70	800	560	9	18.4	42.5	35.5	33.5	37.5	20.3	1.2	FCS3CIP704*AFB3720DE3
	0.80	800	640	8	20.5	42.5	45.0	30.0	37.5	20.3	1.2	FCS3CIP804*AFF3720DE3
	1.00	800	800	7	21.0	42.5	43.0	42.0	37.5	20.3	1.2	FCS3CIP105*AFE3720DE3
	1.00	560	560	6	22.0	57.5	43.5	29.5	52.5	20.3	1.2	FCS3CIP105*AHG5220DE3
	1.20	560	672	6	22.0	57.5	45.0	30.0	52.5	20.3	1.2	FCS3CIP125*AHH5220DE3
	1.40	560	784	5	23.0	57.5	45.0	35.0	52.5	20.3	1.2	FCS3CIP145*AHJ5220DE3
1.60	560	896	5	23.0	57.5	50.0	35.0	52.5	20.3	1.2	FCS3CIP165*AHL5220DE3	
1.70	560	952	4	24.0	57.5	45.0	45.0	52.5	20.3	1.2	FCS3CIP175*AHK5220DE3	
2.00	560	1120	4	25.0	57.5	55.0	40.0	52.5	20.3	1.2	FCS3CIP205*AHM5220DE3	
2000V _{DC} 3D	0.001	9500	9.5	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP102*BE21500AE3
	0.0012	9500	11.4	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP122*BE21500AE3
	0.0015	9500	14.3	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP152*BE21500AE3
	0.0018	9500	17.1	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP182*BE21500AE3
	0.0022	9500	20.9	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP222*BE21500AE3
	0.0027	9500	25.7	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP272*BE21500AE3
	0.0033	9500	31.4	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP332*BE21500AE3
	0.0039	9500	37.1	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP392*BE21500AE3
	0.0047	9500	44.7	-	-	18.0	11.0	5.0	15.0	-	0.6	FCS3DIP472*BE21500AE3
	0.0056	9500	53.2	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3DIP562*BE51500AE3
	0.0068	9500	64.6	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3DIP682*BE51500AE3
	0.0082	9500	77.9	-	-	18.0	12.0	6.0	15.0	-	0.6	FCS3DIP822*BE51500AE3
	0.010	9500	95.0	-	-	18.0	13.5	7.5	15.0	-	0.8	FCS3DIP103*BE71500BE3
	0.012	9500	114.0	-	-	18.0	14.5	8.5	15.0	-	0.8	FCS3DIP123*BE81500BE3
	0.015	9500	142.5	-	-	18.0	14.5	8.5	15.0	-	0.8	FCS3DIP153*BE81500BE3
	0.018	9500	171	-	-	18.0	16.0	10.0	15.0	-	0.8	FCS3DIP183*BE1500BE3
	0.022	3500	77.0	-	-	26.0	16.5	7.0	22.5	-	0.8	FCS3DIP223*BB22200BE3
	0.027	3500	94.5	-	-	26.0	16.5	7.0	22.5	-	0.8	FCS3DIP273*BB22200BE3
	0.033	3500	115.5	-	-	26.0	17.0	8.5	22.5	-	0.8	FCS3DIP333*BB32200BE3
	0.039	3500	136.5	-	-	26.0	19.0	10.0	22.5	-	0.8	FCS3DIP393*BB42200BE3
	0.047	3500	164.5	-	-	26.0	19.0	10.0	22.5	-	0.8	FCS3DIP473*BB42200BE3
	0.056	3500	196	-	-	26.0	20.0	11.0	22.5	-	0.8	FCS3DIP563*BB52200BE3
	0.068	2500	170	-	-	32.0	22.0	13.0	27.5	-	0.8	FCS3DIP683*BI72700BE3
	0.082	2500	205	-	-	32.0	25.0	13.0	27.5	-	0.8	FCS3DIP823*BI82700BE3
	0.10	2500	250	-	-	32.0	28.0	14.0	27.5	-	0.8	FCS3DIP104*BIC2700BE3
	0.12	2500	300	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3DIP124*BIF2700BE3
	0.15	2500	375	-	-	32.0	33.0	18.0	27.5	-	0.8	FCS3DIP154*BIF2700BE3
	0.18	2500	450	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3DIP184*BII2700BE3
	0.20	1000	200	11	11.3	42.5	28.0	24.0	37.5	10.2	1.2	FCS3DIP204*AFA3710DE3
	0.22	2500	550	-	-	32.0	37.0	22.0	27.5	-	0.8	FCS3DIP224*BII2700BE3
	0.30	1000	300	11	14.9	42.5	36.0	24.0	37.5	10.2	1.2	FCS3DIP304*AFD3710DE3
	0.39	1000	390	10	16.6	42.5	33.0	33.0	37.5	20.3	1.2	FCS3DIP394*AFB3720DE3
	0.42	1000	420	9	18.2	42.5	35.5	33.5	37.5	20.3	1.2	FCS3DIP424*AFB3720DE3
	0.56	1000	560	9	20.1	42.5	45.0	30.0	37.5	20.3	1.2	FCS3DIP564*AFF3720DE3
0.70	1000	700	8	20.0	42.5	43.0	42.0	37.5	20.3	1.2	FCS3DIP704*AFE3720DE3	
0.75	720	540	8	21.0	57.5	43.5	29.5	52.5	20.3	1.2	FCS3DIP754*AHG5220DE3	
0.82	720	590	7	21.0	57.5	45.0	30.0	52.5	20.3	1.2	FCS3DIP824*AHH5220DE3	
0.90	720	648	6	22.0	57.5	45.0	35.0	52.5	20.3	1.2	FCS3DIP904*AHJ5220DE3	
1.00	720	720	6	22.0	57.5	50.0	35.0	52.5	20.3	1.2	FCS3DIP105*AHL5220DE3	
1.20	720	864	5	22.0	57.5	45.0	45.0	52.5	20.3	1.2	FCS3DIP125*AHK5220DE3	
1.40	720	1008	4	24.0	57.5	55.0	40.0	52.5	20.3	1.2	FCS3DIP145*AHM5220DE3	

(1) Maximum permissible peak current

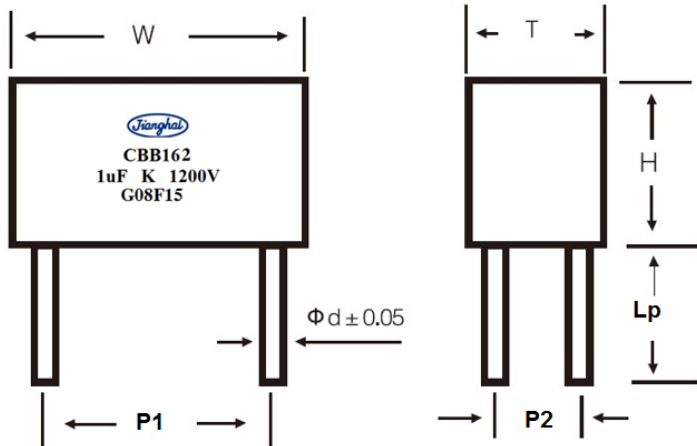
(2) Series resistance at 20°C ambient temperature

(3) Maximum permissible r.m.s. ripple current

**** to be defined, see ordering code table
Customized products are available on request



Dimensions



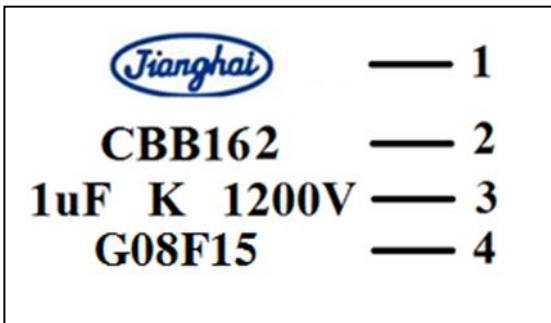
Terminal:

Style	Pinning
A	4 Pin
B	2 Pin

Lp = 5,0 +/- 1mm

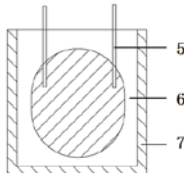
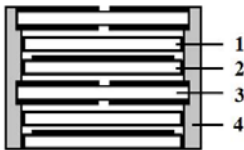
Other Styles on request.

Marking



No.	Item
1	Brand
2	Series Designation
3	Capacitance, Tolerance, and Rated Voltage
4	Date Code

Internal Construction



No.	Item	Material
1	Dielectric Film	Polypropylene
2	Single-sided Metallized Film	PP + Al
3	Double sided Metallized Carrier Film	PET + Al
4	Metal Sprayed Contact	Zn + Sn/Zn
5	Terminals	Sn-coated Cu
6	Potting Compound	Epoxy
7	Case	Flame retardant PBT

Jianghai Film Capacitors

Warranty: The information contained in this datasheet does neither form part of any quotation nor of a contract, it is believed to be accurate, reliable and up to date. Quality data are based on the statistical evaluations of a large quantity of parts and do not constitute a guarantee in a legal sense. However, agreement on these specifications does mean that the customer may claim for replacement of individual defective capacitors within the terms of delivery. We cannot assume any liability beyond the replacement of defective components. This applies in particular to any further consequences of component failure. Furthermore it must be taken into consideration that the figures stated for lifetime, failure rates and outlier percentages refer to the average production status and are therefore to be understood as mean values (statistical expectations) for a large number of delivery lots of identical capacitors. These figures are based on application experience and data obtained from preceding tests under normal conditions, or – for purpose of accelerated aging – more severe conditions. JIANGHAI reserves the right to change these specifications without prior notice. Any application information given is advisory and does not form part of any specification. The products are not primarily designed for use in life supporting applications, devices or systems where malfunction of these products can reasonably be expected to result in personal injury. JIANGHAI customers using or selling these products for use in such applications without prior written consent of JIANGHAI do so at their own risk and agree fully to indemnify JIANGHAI for any damage resulting from such improper use or sale. This version of the datasheet supersedes all previous versions.

Rated Voltage U_R : Rated Voltage is the maximum operating peak voltage of either polarity but of a non-reversing type waveform, for which the capacitor has been designed, for continuous operation. The Rated Voltage is marked on the capacitor and defined in the datasheets as U_R .

Operating voltage: The plastic film capacitor varies in the maximum applicable voltage depending on the applied voltage waveform, current waveform, frequency, ambient temperature (capacitor surface temperature), capacitance value, etc. Be sure to use capacitors within the specified values by checking the voltage waveform, current waveform, and frequency applied to them (In the application of high frequency, the permissible voltage varies with the type of the capacitor. Refer to the specification for details.)

Non-recurrent surge voltage U_s : Peak voltage induced by a switching or any other disturbance of the system which is allowed for a limited number of times and for durations shorter than the basic period.
 - Maximum duration: 50 ms / pulse
 - Maximum number of occurrences: 1000 (during load)

Maximum rate of voltage rise dV/dt : Maximum permissible repetitive rate of voltage rise of the operational voltage.

Charging and discharging: Because the charging and discharging current of capacitor is obtained by the product of voltage rise rate (dV/dt) and capacitance, low voltage charging and discharging may also cause deterioration of capacitor such as shorting and open due to sudden charging and discharging current. When charging and discharging, pass through a resistance of $20\Omega/V$ to $1000\Omega/V$ or more to limit the current.

When connecting multiple film capacitors in parallel in withstand voltage test or life test, connect a resistance of $20\Omega/V$ to $1000\Omega/V$ or more in series to each capacitor (For detail see the specification). In addition, capacitors must be discharged via a resistor before handling. Because the capacitors do not have any discharge resistors built-in, there is a risk of residual voltages and electric energy contents that maybe dangerous.

Operating Current: The pulse (or AC) current flowing through the capacitor is expressed as: $I = C \times dV/dt$. Due to the fact that the dissipation factor of the capacitor is greater than zero, heat will be generated in any application where alternating currents or pulses occur. The resulting internal temperature rise may cause a severe deterioration of the capacitor's withstanding voltage, or may lead to a breakdown (even smoke or fire may result). Therefore, the safe use of capacitor must be within the rated voltage (or category voltage) and the permissible current ranges. The rated current must be considered by dividing into pulse current (peak current) and continuous current (rms current) depending on the break down mode, and when using, should make sure the both currents are within the permissible range.

Temperature range: Use film capacitors only within the specified operating temperature range.

Expected lifetime: The expected lifetime of the capacitor depends on the applied voltage and the hot spot temperature during operation. For capacitors applied in different situations, the obtainable average service lives are different. The capacitors used in DC-Link circuits will have an expected lifetime of approximately 100000 hours at rated voltage and 70°C hot spot temperature.

Insulation voltage U_i : rms value of AC voltage designed for the insulation between terminals of the capacitor to case or earth. The insulation voltage is equal to the rated voltage of the capacitor, divided by $\sqrt{2}$, unless otherwise specified.

Voltage between terminals U_{TT} : Voltage between terminals (at 20°C , 10s): $1.5 \times U_{RDC}$

Voltage between terminals and case U_{TC} : Voltage between terminals and case (at 20°C , 10s): $2 \times U_i + 1000$ or $3000 (V_{AC})$, whichever value is larger.

Buzzing noise: Any buzzing noise produced by a capacitor is caused by the vibration of the film due to the Coulomb force that is generated between the electrodes with opposite poles. If the wave-form with a high distortion rate or frequency is applied across the capacitor, the buzzing noise will become louder. But the buzzing noise is of no harm to the capacitor.

Surface over temperature $\Delta \theta$ case: When current continuously flow through the capacitor, the temperature inside the capacitor will rise induced by dissipated heat. If the temperature exceeds the maximum allowed hot-spot temperature, it might cause a short circuit or fire. The limits described in the catalogue must not be exceeded and it's necessary to check the temperature on the capacitor's surface in operation.

Flame retardation: Although flame retarding PU resin or plastic case material is used in the coating or encapsulation of plastic film capacitors, continuous exposure to high temperature ambient or fire will break the coating layer or plastic case of the capacitor, and may lead to melting and ignition of the capacitor element.

Humid ambient: If used for a long time in a humid ambient, the capacitor might absorb humidity and oxidize the electrodes causing damage to the capacitor. In case of AC application, high humidity would increase the corona effect. This phenomenon causes a drop in capacitance and an increase of capacitor losses.

Storage conditions:

- 1) Capacitors must not be stored in corrosive atmospheres, particularly not when chlorides, sulfides, acids, lye, salts, organic solvents or similar substances are present.
- 2) It must not be stored in high temperature and/or high humidity environments. The following storage conditions must be kept (applicable only for storage in the original package):
 Temperature: $\leq 35^\circ\text{C}$
 Humidity: $\leq 80\% \text{ RH}$, no dew allowed on the capacitor.
 Storage time: ≤ 24 months (from the date marked on the capacitor's body or on the label sticking to the package)

Mounting: Other devices, which are mounted near the capacitor, should not touch the capacitor. Additional heat coming from other components near the capacitor may reduce the lifetime of the capacitor. Do never attempt to bend or twist the capacitor after mounting and avoid any mechanical stress on the terminals. Never exceed the max. permissible torques when tightening the terminal screws or the mounting bolt's cap nuts.

Caution during use of Capacitors: Do not touch the terminals of capacitors. Keep the capacitor free from conductive solution, such as acids, alkali and so on. Ensure that the operating environment of the equipment into which the capacitor has been built is within the specified conditions mentioned in the catalogue or specification sheets.

Definition of electrical parameters: Separate documents as application notes, equivalent circuit diagrams and so on are available on request.

Packaging: Please refer to the data book for details. Further information is available on request.