HCSB

Snubber Capacitor for IGBT(PCB)



Features

- Metallized polypropylene film
- Plastic case, filled with resin (UL 94 V-0)
- Good self-healing performance
- Low losses and high current capability
- Automotive (AEC-Q200) grade

Typical Applications

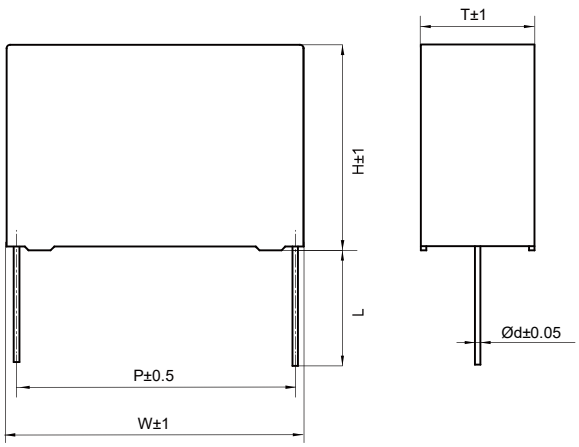
- Widely used in high voltage, high frequency circuit, including snubber, clamping, and pulse.

Safety Approvals

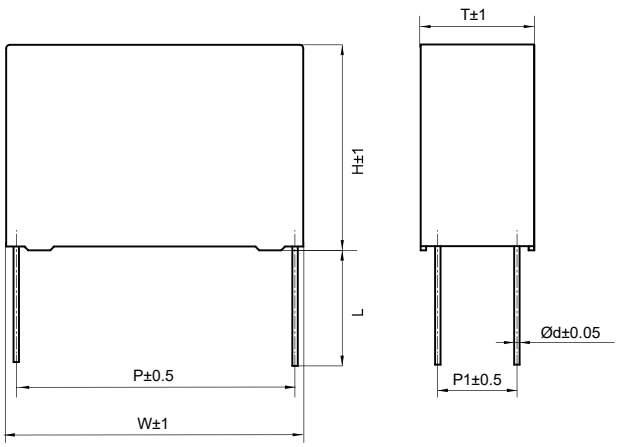
	UL	UL810	0.01μF-10μF,max 3000Vd.c.,max 105℃ File No.: E222132, CCN:CZDS2

Notes: The above certificate No.is just a license No. Please refer to the certificates we supplied for detail information.

Outline Drawing



2Pins



4Pins

Notes: All product dimensions are in mm.
See the Technical Parameters table for details.

Specifications

Reference standards		IEC 61071、GB/T 17702	
Rated voltage	U_{NDC}	630Vd.c.~2500Vd.c.	
Capacitance range	C_N	0.047μF~10μF	
Capacitance tolerance		±5%(J),±10%(K)	
Dielectric loss factor	tanδd	0.0002	
Insulation resistance (20℃, 100Vd.c.,1min)	IR×C_N	$C_N \leqslant 0.33\mu F$	IR≥100000MΩ
		$C_N > 0.33\mu F$	IR×C_N≥30000s
Climatic category		40/85/56	
Operating temperature range(case)	T_{OP}	-40℃~85℃	
Voltage proof between terminals	U_{t-t}	1.5U_{NDC}/10s	
Expected lifetime		100000h@ U_N, θhs=70℃	

Ordering Information

1 2 3 4	5	6 7	8 9 10 11	12	13	14	15	16 17 18	19 20 21 22
H C S B	/	2 J	1 5 0 3	K	B	0	1	0 0 0	C 0 0 0
Series code		**Rated voltage**	**Rated capacitance**	**Capacitance tolerance**	**Pitch**	**Lead QTY**	**Lead diameter**	**Internal code**	**Lead form and packaging code**

Rated voltage
- 2J=630Vd.c.
- 1V=700Vd.c.
- 1W=850Vd.c.
- 3A=1000Vd.c.
- 3L=1200Vd.c.
- 3C=1600Vd.c.
- 7M=1700Vd.c.
- 3D=2000Vd.c.
- 3E=2500Vd.c.

Rated capacitance
For example:
1503=150×10^3pF
=0.15μF

Capacitance tolerance
J=±5%
M=±10%

Pitch
- B=27.5mm
- F=37.5mm
- M=52.5mm

Lead QTY
- 0=2pins
- A=4pins,P1=20.3mm
- B=4pins,P1=10.2mm

Lead diameter
- 1=0.8mm
- 2=1.0mm
- 3=1.2mm

Lead form and packaging code
See table 1

Table 1: Lead Form and Packaging Code

Digit 19		Digit 20~21		Digit 22	
Code	Explanation	Code	Explanation	Code	Explanation
C	Straight Lead[1)]	00	Standard lead length(5.5 mm)	0	Lead length tolerance±0.5 mm
		35	Lead length 3.5 mm[2)]		

Notes: 1) Other lead form and packaging options are available upon customer request.
2) If the lead length is 3.5 mm, the code is C350, etc.

Technical Parameter

630 Vd.c./700 Vd.c.(420 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.15	32.0	20.0	11.0	27.5	-	0.8	1200	180	11.5	3	19	HCSB/2J1503+B01000****
0.22	32.0	20.0	11.0	27.5	-	0.8	1200	264	9.5	4	19	HCSB/2J2203+B01000****
0.33	32.0	22.0	13.0	27.5	-	1.0	1200	396	7.5	5.5	19	HCSB/2J3303+B02000****
0.47	32.0	25.0	13.0	27.5	-	1.0	1200	564	6.0	7	19	HCSB/2J4703+B02000****
0.56	32.0	25.0	13.0	27.5	-	1.0	1200	672	6.0	7.5	19	HCSB/2J5603+B02000****
0.68	37.0	25.0	15.0	32.5	-	1.2	900	612	6.0	6	23	HCSB/2J6803+D03000****
0.68	37.0	25.0	15.0	32.5	5.1	1.0	900	612	5.0	8	23	HCSB/2J6803+DC2000****
1.0	37.0	30.0	16.0	32.5	-	1.2	900	900	6.0	9	23	HCSB/2J1004+D03000****
1.0	37.0	30.0	16.0	32.5	5.1	1.0	900	900	5.0	11	23	HCSB/2J1004+DC2000****
1.2	37.0	30.0	16.0	32.5	-	1.2	900	1080	5.5	11	23	HCSB/2J1204+D03000****
1.2	37.0	30.0	16.0	32.5	5.1	1.0	900	1080	4.5	13	23	HCSB/2J1204+DC2000****
1.5	37.0	34.0	20.0	32.5	-	1.2	900	1350	5.5	14	23	HCSB/2J1504+D03000****
1.5	37.0	34.0	20.0	32.5	10.2	1.0	900	1350	4.5	17	23	HCSB/2J1504+DB2000****
1.8	37.0	34.0	20.0	32.5	-	1.2	900	1620	5.5	14	23	HCSB/2J1804+D03000****
1.8	37.0	34.0	20.0	32.5	10.2	1.0	900	1620	4.5	18	23	HCSB/2J1804+DB2000****
2.0	42.0	40.0	20.0	37.5	-	1.2	600	1200	5.0	14	29	HCSB/2J2004+F03000****
2.0	42.0	40.0	20.0	37.5	10.2	1.2	600	1200	4.0	18	29	HCSB/2J2004+FB3000****
2.2	42.0	40.0	20.0	37.5	-	1.2	600	1320	5.0	14	29	HCSB/2J2204+F03000****
2.2	42.0	40.0	20.0	37.5	10.2	1.2	600	1320	4.0	18.5	29	HCSB/2J2204+FB3000****
2.5	42.0	40.0	20.0	37.5	-	1.2	600	1500	5.0	14	29	HCSB/2J2504+F03000****
2.5	42.0	40.0	20.0	37.5	10.2	1.2	600	1500	4.0	19	29	HCSB/2J2504+FB3000****
3.0	42.0	44.0	24.0	37.5	-	1.2	600	1800	5.0	14	29	HCSB/2J3004+F03000****
3.0	42.0	44.0	24.0	37.5	10.2	1.2	600	1800	4.0	20	29	HCSB/2J3004+FB3000****
3.3	42.0	44.0	24.0	37.5	-	1.2	600	1980	4.5	14	29	HCSB/2J3304+F03000****
3.3	42.0	44.0	24.0	37.5	10.2	1.2	600	1980	3.5	20	29	HCSB/2J3304+FB3000****
4.0	42.0	44.0	24.0	37.5	-	1.2	600	2400	4.5	14	29	HCSB/2J4004+F03000****
4.0	42.0	44.0	24.0	37.5	10.2	1.2	600	2400	3.5	21	29	HCSB/2J4004+FB3000****
4.7	42.0	45.0	30.0	37.5	20.3	1.2	600	2820	3.5	23	29	HCSB/2J4704+FA3000****
5.0	42.0	45.0	30.0	37.5	20.3	1.2	600	3000	3.0	23.5	29	HCSB/2J5004+FA3000****
6.0	57.5	45.0	25.0	52.5	10.2	1.2	360	2160	3.0	23.5	33	HCSB/2J6504+MA3000****

Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

Technical Parameter

630 Vd.c./700 Vd.c.(420 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
6.5	57.5	45.0	30.0	52.5	20.3	1.2	360	2340	3.0	23.5	33	HCSB/2J6504+MA3000****
6.8	57.5	45.0	30.0	52.5	20.3	1.2	360	2448	2.5	24	33	HCSB/2J6804+MA3000****
7.0	57.5	45.0	30.0	52.5	20.3	1.2	360	2520	2.5	25	33	HCSB/2J7004+MA3000****
8.0	57.5	50.0	35.0	52.5	20.3	1.2	360	2880	2.5	27	33	HCSB/2J8004+MA3000****
8.2	57.5	50.0	35.0	52.5	20.3	1.2	360	2952	2.5	27	33	HCSB/2J8204+MA3000****
9.0	57.5	50.0	35.0	52.5	20.3	1.2	360	3240	2.5	28	33	HCSB/2J9004+MA3000****
10.0	57.5	50.0	35.0	52.5	20.3	1.2	360	3600	2.5	28.5	33	HCSB/2J1005+MA3000****

850 Vd.c.(450 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.10	32	18	9	27.5	-	0.8	1400	140	13.5	3	19	HCSB/1W1003+B01000****
0.15	32	20	11	27.5	-	0.8	1400	210	10.5	4.5	19	HCSB/1W1503+B01000****
0.22	32	20	11	27.5	-	1.0	1400	308	8.0	5	19	HCSB/1W2203+B02000****
0.33	32	22	13	27.5	-	1.0	1400	462	6.5	6	19	HCSB/1W3303+B02000****
0.47	37	25	15	32.5	-	1.2	1200	564	6.0	6	23	HCSB/1W4703+D03000****
0.47	37	25	15	32.5	5.1	1.0	1200	564	5.0	8	23	HCSB/1W4703+DC2000****
0.68	37	30	16	32.5	-	1.2	1200	816	6.0	9	23	HCSB/1W6803+D03000****
0.68	37	30	16	32.5	5.1	1.0	1200	816	5.0	11	23	HCSB/1W6803+DC2000****
1.0	37	34	20	32.5	-	1.2	1200	1200	6.0	11	23	HCSB/1W1004+D03000****
1.0	37	34	20	32.5	10.2	1.0	1200	1200	5.0	13	23	HCSB/1W1004+DB2000****
1.2	37	34	20	32.5	-	1.2	1200	1440	6.0	13	23	HCSB/1W1204+D03000****
1.2	37	34	20	32.5	10.2	1.0	1200	1440	5.0	15	23	HCSB/1W1204+DB2000****
1.5	37	34	20	32.5	-	1.2	1200	1800	6.0	14	23	HCSB/1W1504+D03000****
1.5	37	34	20	32.5	10.2	1.0	1200	1800	5.0	18	23	HCSB/1W1504+DB2000****
1.5	42	40	20	37.5	-	1.2	750	1125	5.5	14	29	HCSB/1W1504+F03000****
1.5	42	40	20	37.5	10.2	1.2	750	1125	4.5	18.5	29	HCSB/1W1504+FB3000****
2.0	42	40	20	37.5	-	1.2	750	1500	5.5	14	29	HCSB/1W2004+F03000****
2.0	42	40	20	37.5	10.2	1.2	750	1500	4.5	19	29	HCSB/1W2004+FB3000****
2.2	42	40	20	37.5	-	1.2	750	1650	5.5	14	29	HCSB/1W2204+F03000****
2.2	42	40	20	37.5	10.2	1.2	750	1650	4.5	19.5	29	HCSB/1W2204+FB3000****
2.5	42	44	24	37.5	-	1.2	750	1875	5.5	14	29	HCSB/1W2504+F03000****
2.5	42	44	24	37.5	10.2	1.2	750	1875	4.5	20	29	HCSB/1W2504+FB3000****

Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

Technical Parameter

850 Vd.c.(450 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
3.0	42	44	24	37.5	-	1.2	750	2250	5.5	14	29	HCSB/1W3004+F03000****
3.0	42	44	24	37.5	10.2	1.2	750	2250	4.5	21	29	HCSB/1W3004+FB3000****
3.3	42	45	30	37.5	20.3	1.2	750	2475	4.5	21.5	29	HCSB/1W3304+FA3000****
4.0	42	46	35	37.5	20.3	1.2	750	3000	4.5	22	29	HCSB/1W4004+FA3000****
4.7	42	50	35	37.5	20.3	1.2	750	3525	4.5	23	29	HCSB/1W4704+FA3000****
3.3	57.5	45	25	52.5	10.2	1.2	450	1485	4.0	17	33	HCSB/1W3304+MA3000****
4.0	57.5	45	25	52.5	20.3	1.2	450	1800	4.0	23	33	HCSB/1W4004+MA3000****
4.7	57.5	45	30	52.5	20.3	1.2	450	2115	4.0	24.5	33	HCSB/1W4704+MA3000****
5.0	57.5	45	30	52.5	20.3	1.2	450	2250	4.0	25	33	HCSB/1W5004+MA3000****
5.6	57.5	50	35	52.5	20.3	1.2	450	2520	4.0	25.5	33	HCSB/1W5604+MA3000****
6.0	57.5	50	35	52.5	20.3	1.2	450	2700	4.0	26	33	HCSB/1W6004+MA3000****
6.5	57.5	50	35	52.5	20.3	1.2	450	2925	4.0	27	33	HCSB/1W6504+MA3000****
6.8	57.5	50	35	52.5	20.3	1.2	450	3060	4.0	27.5	33	HCSB/1W6804+MA3000****

1000 Vd.c.(500 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.068	32	18	9	27.5	-	0.8	1600	108.8	17.0	3	19	HCSB/3A6802+B01000****
0.10	32	20	11	27.5	-	0.8	1600	160	12.5	4	19	HCSB/3A1003+B01000****
0.15	32	20	11	27.5	-	0.8	1600	240	10.0	5	19	HCSB/3A1503+B01000****
0.22	32	22	13	27.5	-	1.0	1600	352	7.5	7	19	HCSB/3A2203+B02000****
0.33	32	24	15	27.5	-	1.0	1600	528	6.0	8.5	19	HCSB/3A3303+B02000****
0.47	37	25	15	32.5	-	1.2	1300	611	6.0	6	23	HCSB/3A4703+D03000****
0.47	37	25	15	32.5	5.1	1.0	1300	611	5.0	8	23	HCSB/3A4703+DC2000****
0.68	37	30	16	32.5	-	1.2	1300	884	6.0	7	23	HCSB/3A6803+D03000****
0.68	37	30	16	32.5	5.1	1.0	1300	884	5.0	9	23	HCSB/3A6803+DC2000****
0.82	37	30	16	32.5	-	1.2	1300	1066	6.0	9	23	HCSB/3A8203+D03000****
0.82	37	30	16	32.5	5.1	1.0	1300	1066	5.0	11	23	HCSB/3A8203+DC2000****
1.0	37	34	20	32.5	-	1.2	1300	1300	5.5	12	23	HCSB/3A1004+D03000****
1.0	37	34	20	32.5	10.2	1.0	1300	1300	4.5	14	23	HCSB/3A1004+DB2000****
1.2	37	34	20	32.5	-	1.2	1300	1560	5.5	14	23	HCSB/3A1204+D03000****
1.2	37	34	20	32.5	10.2	1.0	1300	1560	4.5	17	23	HCSB/3A1204+DB2000****
1.2	42	40	20	37.5	-	1.2	850	1020	5.5	14	29	HCSB/3A1204+F03000****

Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

Technical Parameter

1000 Vd.c.(500 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
1.2	42	40	20	37.5	10.2	1.2	850	1020	4.5	16	29	HCSB/3A1204+FB3000****
1.5	42	40	20	37.5	-	1.2	850	1275	5.5	14	29	HCSB/3A1504+F03000****
1.5	42	40	20	37.5	10.2	1.2	850	1275	4.5	16	29	HCSB/3A1504+FB3000****
2.0	42	44	24	37.5	-	1.2	850	1700	5.5	14	29	HCSB/3A2004+F03000****
2.0	42	44	24	37.5	10.2	1.2	850	1700	4.5	17	29	HCSB/3A2004+FB3000****
2.2	42	44	24	37.5	-	1.2	850	1870	5.0	14	29	HCSB/3A2204+F03000****
2.2	42	44	24	37.5	10.2	1.2	850	1870	4.0	20	29	HCSB/3A2204+FB3000****
2.5	42	45	30	37.5	20.3	1.2	850	2125	4.0	21	29	HCSB/3A2504+FA3000****
3.0	42	45	30	37.5	20.3	1.2	850	2550	4.0	21.5	29	HCSB/3A3004+FA3000****
3.3	42	50	35	37.5	20.3	1.2	850	2805	4.0	22	29	HCSB/3A3304+FA3000****
3.0	57.5	45	25	52.5	10.2	1.2	500	1500	4.0	19	33	HCSB/3A3004+MA3000****
3.3	57.5	45	30	52.5	20.3	1.2	500	1650	4.0	20	33	HCSB/3A3304+MA3000****
4.0	57.5	45	30	52.5	20.3	1.2	500	2000	4.0	21	33	HCSB/3A4004+MA3000****
4.7	57.5	50	35	52.5	20.3	1.2	500	2350	4.0	22	33	HCSB/3A4704+MA3000****
5.0	57.5	50	35	52.5	20.3	1.2	500	2500	4.0	23	33	HCSB/3A5004+MA3000****

1200 Vd.c.(600 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.047	32	18	9	27.5	-	0.8	1700	79.9	21.0	3	19	HCSB/3L4702+B01000****
0.068	32	18	9	27.5	-	0.8	1700	115.6	17.0	4	19	HCSB/3L6802+B01000****
0.10	32	20	11	27.5	-	0.8	1700	170	13.5	5.5	19	HCSB/3L1003+B01000****
0.15	32	22	13	27.5	-	1.0	1700	255	10.0	6.5	19	HCSB/3L1503+B02000****
0.22	32	25	13	27.5	-	1.0	1700	374	7.0	9.0	19	HCSB/3L2203+B02000****
0.33	37	25	15	32.5	-	1.2	1500	495	6.5	6	23	HCSB/3L3303+D03000****
0.33	37	25	15	32.5	5.1	1.0	1500	495	5.5	8	23	HCSB/3L3303+DC2000****
0.47	37	30	16	32.5	-	1.2	1500	705	6.5	8	23	HCSB/3L4703+D03000****
0.47	37	30	16	32.5	5.1	1.0	1500	705	5.5	10	23	HCSB/3L4703+DC2000****
0.68	37	34	20	32.5	-	1.2	1500	1020	6.5	9	23	HCSB/3L6803+D03000****
0.68	37	34	20	32.5	10.2	1.0	1500	1020	5.5	11	23	HCSB/3L6803+DB2000****
0.75	37	34	20	32.5	-	1.2	1500	1125	6.5	10	23	HCSB/3L7503+D03000****
0.75	37	34	20	32.5	10.2	1.0	1500	1125	5.5	12	23	HCSB/3L7503+DB2000****
0.82	42	40	20	37.5	-	1.2	950	779	6.0	11	29	HCSB/3L8203+F03000****

Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

Technical Parameter

1200 Vd.c.(600 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.82	42	40	20	37.5	10.2	1.2	950	779	5.0	13	29	HCSB/3L8203+FB3000****
1.0	42	40	20	37.5	-	1.2	950	950	6.0	13	29	HCSB/3L1004+F03000****
1.0	42	40	20	37.5	10.2	1.2	950	950	5.0	15	29	HCSB/3L1004+FB3000****
1.2	42	44	24	37.5	-	1.2	950	1140	5.5	14	29	HCSB/3L1204+F03000****
1.2	42	44	24	37.5	10.2	1.2	950	1140	4.5	17	29	HCSB/3L1204+FB3000****
1.5	42	44	24	37.5	-	1.2	950	1425	5.5	14	29	HCSB/3L1504+F03000****
1.5	42	44	24	37.5	10.2	1.2	950	1425	4.5	17.5	29	HCSB/3L1504+FB3000****
2.0	42	45	30	37.5	20.3	1.2	950	1900	4.5	18	29	HCSB/3L2004+FA3000****
2.2	42	46	35	37.5	20.3	1.2	950	2090	4.5	19	29	HCSB/3L2204+FA3000****
2.2	57.5	45	30	52.5	20.3	1.2	600	1320	4.0	18	33	HCSB/3L2204+MA3000****
2.5	57.5	45	30	52.5	20.3	1.2	600	1500	4.0	19	33	HCSB/3L2504+MA3000****
3.0	57.5	45	30	52.5	20.3	1.2	600	1800	4.0	20	33	HCSB/3L3004+MA3000****
3.3	57.5	50	35	52.5	20.3	1.2	600	1980	4.0	21	33	HCSB/3L3304+MA3000****
3.5	57.5	50	35	52.5	20.3	1.2	600	2100	4.0	22	33	HCSB/3L3504+MA3000****

1600 Vd.c.(650 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.033	32	18	9	27.5	-	0.8	2100	69.3	29.5	2	19	HCSB/3C3302+B01000****
0.047	32	18	9	27.5	-	0.8	2100	98.7	22.5	2.5	19	HCSB/3C4702+B01000****
0.068	32	20	11	27.5	-	0.8	2100	142.8	16.0	4	19	HCSB/3C6802+B01000****
0.10	32	22	13	27.5	-	1.0	2100	210	12.0	6	19	HCSB/3C1003+B02000****
0.15	32	30	16	27.5	-	1.0	2100	315	8.5	6.5	19	HCSB/3C1503+B02000****
0.22	37	25	15	32.5	-	1.2	1900	418	7.5	6	23	HCSB/3C2203+D03000****
0.22	37	25	15	32.5	5.1	1.0	1900	418	6.5	7	23	HCSB/3C2203+DC2000****
0.33	37	30	16	32.5	-	1.2	1900	627	7.5	7.5	23	HCSB/3C3303+D03000****
0.33	37	30	16	32.5	5.1	1.0	1900	627	6.5	9	23	HCSB/3C3303+DC2000****
0.39	37	34	20	32.5	-	1.2	1900	741	7.0	9	23	HCSB/3C3903+D03000****
0.39	37	34	20	32.5	10.2	1.0	1900	741	6.0	11	23	HCSB/3C3903+DB2000****
0.47	37	34	20	32.5	-	1.2	1900	893	7.0	11	23	HCSB/3C4703+D03000****
0.47	37	34	20	32.5	10.2	1.0	1900	893	6.0	13	23	HCSB/3C4703+DB2000****
0.68	42	40	20	37.5	-	1.2	1250	850	4.0	14	29	HCSB/3C6803+F03000****
0.68	42	40	20	37.5	10.2	1.2	1250	850	4.0	16	29	HCSB/3C6803+FB3000****

Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

Technical Parameter

1600 Vd.c.(650 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.82	42	44	24	37.5	-	1.2	1250	1025	4.0	14	29	HCSB/3C8203+F03000****
0.82	42	44	24	37.5	10.2	1.2	1250	1025	4.0	17	29	HCSB/3C8203+FB3000****
1.0	42	45	30	37.5	20.3	1.2	1250	1250	4.0	17.5	29	HCSB/3C1004+FA3000****
1.2	42	45	30	37.5	20.3	1.2	1250	1500	4.0	18	29	HCSB/3C1204+FA3000****
1.5	42	43	42	37.5	20.3	1.2	1250	1875	4.0	19	29	HCSB/3C1504+FA3000****
1.5	57.5	45	25	52.5	10.2	1.2	750	1125	4.0	20	33	HCSB/3C1504+MA3000****
2.0	57.5	50	35	52.5	20.3	1.2	750	1500	4.0	22	33	HCSB/3C2004+MA3000****

1700 Vd.c.(675 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.033	32	18	9	27.5	-	0.8	2300	75.9	29.5	3	19	HCSB/7M3302+B01000****
0.068	32	20	11	27.5	-	0.8	2300	156.4	18.0	5.0	19	HCSB/7M6802+B01000****
0.10	32	22	13	27.5	-	1.0	2300	230	12.5	7.5	19	HCSB/7M1003+B02000****
0.15	37	25	15	32.5	-	1.2	2000	300	8.5	5	23	HCSB/7M1503+D03000****
0.15	37	25	15	32.5	5.1	1.0	2000	300	7.5	6	23	HCSB/7M1503+DC2000****
0.22	37	30	16	32.5	-	1.2	2000	440	7.5	6	23	HCSB/7M2203+D03000****
0.22	37	30	16	32.5	5.1	1.0	2000	440	6.5	8	23	HCSB/7M2203+DC2000****
0.33	37	34	20	32.5	-	1.2	2000	660	7.0	9	23	HCSB/7M3303+D03000****
0.33	37	34	20	32.5	10.2	1.0	2000	660	6.0	10.5	23	HCSB/7M3303+DB2000****
0.39	37	34	20	32.5	-	1.2	2000	780	7.0	10	23	HCSB/7M3903+D03000****
0.39	37	34	20	32.5	10.2	1.0	2000	780	6.0	12	23	HCSB/7M3903+DB2000****
0.47	42	40	20	37.5	-	1.2	1250	587.5	6.0	12	29	HCSB/7M4703+F03000****
0.47	42	40	20	37.5	10.2	1.2	1250	587.5	5.0	14	29	HCSB/7M4703+FB3000****
0.56	42	40	20	37.5	-	1.2	1250	700	6.0	13	29	HCSB/7M5603+F03000****
0.56	42	40	20	37.5	10.2	1.2	1250	700	5.0	15	29	HCSB/7M5603+FB3000****
0.68	42	44	24	37.5	-	1.2	1250	850	6.0	14	29	HCSB/7M6803+F03000****
0.68	42	44	24	37.5	10.2	1.2	1250	850	5.0	16	29	HCSB/7M6803+FB3000****
0.82	42	44	24	37.5	-	1.2	1250	1025	5.5	14	29	HCSB/7M8203+F03000****
0.82	42	44	24	37.5	10.2	1.2	1250	1025	4.5	17	29	HCSB/7M8203+FB3000****
1.0	42	45	30	37.5	20.3	1.2	1250	1250	4.5	18	29	HCSB/7M1004+FA3000****
1.0	57.5	45	25	52.5	10.2	1.2	780	780	4.0	16	33	HCSB/7M1004+MA3000****
1.2	57.5	45	30	52.5	20.3	1.2	780	936	4.0	17	33	HCSB/7M1204+MA3000****
1.5	57.5	45	30	52.5	20.3	1.2	780	1170	4.0	20	33	HCSB/7M1504+MA3000****
2.0	57.5	50	35	52.5	20.3	1.2	780	1560	4.0	22	33	HCSB/7M2004+MA3000****

Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

Technical Parameter

2000 Vd.c.(700 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.022	32	18	9	27.5	-	0.8	2500	55	37.5	2	19	HCSB/3D2202+B01000****
0.033	32	20	11	27.5	-	0.8	2500	82.5	27.5	3	19	HCSB/3D3302+B01000****
0.047	32	20	11	27.5	-	0.8	2500	117.5	22.5	5	19	HCSB/3D4702+B01000****
0.068	32	20	11	27.5	-	1.0	2500	170	16.0	6.5	19	HCSB/3D6802+B02000****
0.10	37	25	15	32.5	-	1.2	2200	220	9.5	5	23	HCSB/3D1003+D03000****
0.10	37	25	15	32.5	5.1	1.0	2200	220	8.5	6	23	HCSB/3D1003+DC2000****
0.15	37	25	15	32.5	-	1.2	2200	330	9.5	6	23	HCSB/3D1503+D03000****
0.15	37	25	15	32.5	5.1	1.0	2200	330	8.5	8	23	HCSB/3D1503+DC2000****
0.22	37	30	16	32.5	-	1.2	2200	484	7.5	7.5	23	HCSB/3D2203+D03000****
0.22	37	30	16	32.5	5.1	1.0	2200	484	6.5	9	23	HCSB/3D2203+DC2000****
0.33	37	34	20	32.5	-	1.2	2200	726	7.5	10	23	HCSB/3D3303+D03000****
0.33	37	34	20	32.5	10.2	1.0	2200	726	6.5	12	23	HCSB/3D3303+DB2000****
0.47	42	40	20	37.5	-	1.2	1300	611	6.0	13	29	HCSB/3D4703+F03000****
0.47	42	40	20	37.5	10.2	1.2	1300	611	5.0	15	29	HCSB/3D4703+FB3000****
0.56	42	44	24	37.5	-	1.2	1300	728	6.0	14	29	HCSB/3D5603+F03000****
0.56	42	44	24	37.5	10.2	1.2	1300	728	5.0	16	29	HCSB/3D5603+FB3000****
0.68	42	44	24	37.5	-	1.2	1300	884	5.5	14	29	HCSB/3D6803+F03000****
0.68	42	44	24	37.5	10.2	1.2	1300	884	4.5	16.5	29	HCSB/3D6803+FB3000****
0.82	42	45	30	37.5	20.3	1.2	1300	1066	4.5	17	29	HCSB/3D8203+FA3000****
1.0	42	50	35	37.5	20.3	1.2	1300	1300	4.5	19	29	HCSB/3D1004+FA3000****
1.0	57.5	45	30	52.5	20.3	1.2	850	850	4.5	20	33	HCSB/3D1004+MA3000****
1.2	57.5	45	30	52.5	20.3	1.2	850	1020	4.5	21	33	HCSB/3D1204+MA3000****
1.5	57.5	50	35	52.5	20.3	1.2	850	1275	4.5	22	33	HCSB/3D1504+MA3000****

Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

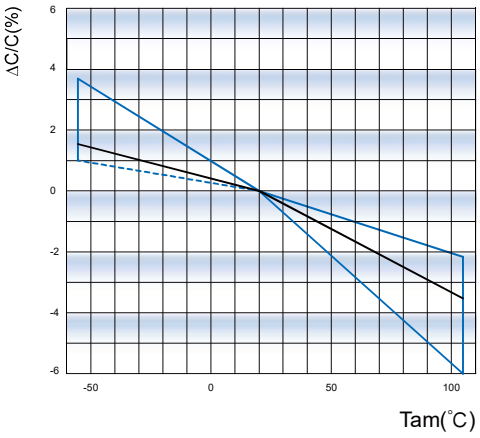
Technical Parameter

2500 Vd.c.(725 Va.c.)												
C_N(μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dv/dt (V/μs)	Î(A)	ESR @10kHz	I_{max}(A)	Ls(nH)	Ordering Information
0.010	32	18	9	27.5	-	0.8	3500	35	60.0	1.5	19	HCSB/3E1002+B01000****
0.015	32	18	9	27.5	-	0.8	3500	52.5	44.0	2	19	HCSB/3E1502+B01000****
0.022	32	18	9	27.5	-	0.8	3500	77	34.0	3	19	HCSB/3E2202+B01000****
0.033	32	20	11	27.5	-	0.8	3500	115.5	25.5	3.5	19	HCSB/3E3302+B01000****
0.047	32	22	13	27.5	-	1.0	3500	164.5	18.5	4.5	19	HCSB/3E4702+B02000****
0.068	37	25	15	32.5	-	1.2	3200	217.6	10.0	5	23	HCSB/3E6802+D03000****
0.068	37	25	15	32.5	5.1	1.0	3200	217.6	9.0	6	23	HCSB/3E6802+DC2000****
0.10	37	30	16	32.5	-	1.2	3200	320	10.0	6	23	HCSB/3E1003+D03000****
0.10	37	30	16	32.5	5.1	1.0	3200	320	9.0	7	23	HCSB/3E1003+DC2000****
0.15	37	34	20	32.5	-	1.2	3200	480	9.5	8	23	HCSB/3E1503+D03000****
0.15	37	34	20	32.5	10.2	1.0	3200	480	8.5	10	23	HCSB/3E1503+DB2000****
0.18	37	34	20	32.5	-	1.2	3200	576	9.0	10.5	23	HCSB/3E1803+D03000****
0.18	37	34	20	32.5	10.2	1.0	3200	576	8.0	12	23	HCSB/3E1803+DB2000****
0.22	42	40	20	37.5	-	1.2	2100	462	5.5	11	29	HCSB/3E2203+F03000****
0.22	42	40	20	37.5	10.2	1.2	2100	462	4.5	13	29	HCSB/3E2203+FB3000****
0.33	42	44	24	37.5	-	1.2	2100	693	5.5	13	29	HCSB/3E3303+F03000****
0.33	42	44	24	37.5	10.2	1.2	2100	693	4.5	15.2	29	HCSB/3E3303+FB3000****
0.47	42	45	30	37.5	20.3	1.2	2100	987	4.0	16	2	HCSB/3E4703+FA3000****
0.68	42	50	35	37.5	20.3	1.2	2100	1428	4.0	16.5	29	HCSB/3E6803+FA3000****
0.68	57.5	45	30	52.5	20.3	1.2	1200	816	4.0	17	33	HCSB/3E6803+MA3000****
1.0	57.5	50	35	52.5	20.3	1.2	1200	1200	4.0	17.5	33	HCSB/3E1004+MA3000****

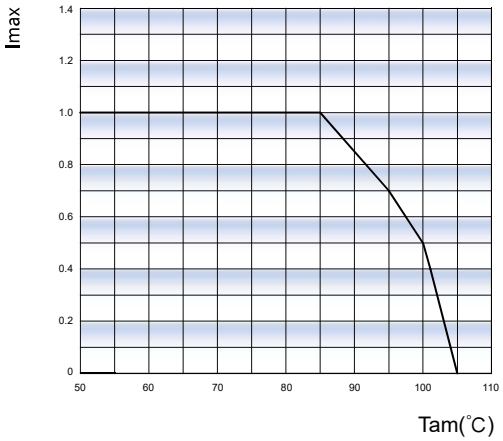
Notes: 1) "+" means capacitance tolerance,J=±5%,K=±10%;
2)"****" means lead form and packaging code (See table 1).

Characteristic Curve (Typical)

Capacitance versus temperature



DC current versus temperature



Impedance Z versus frequency f

