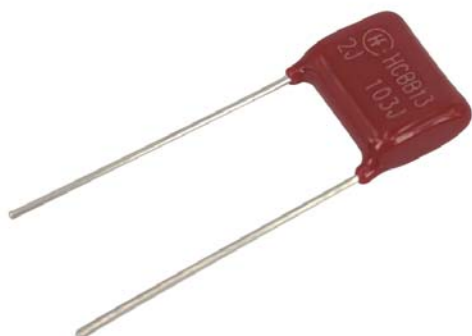


HCBB13

Non-inductive polypropylene film/foil capacitor(dipped)



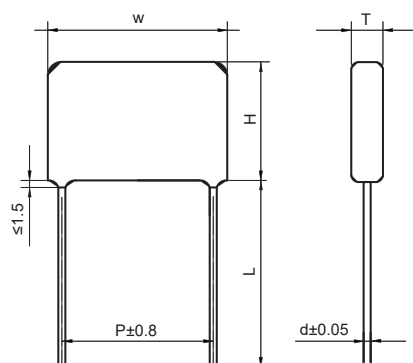
Features

- Polypropylene film as medium, non-inductive wound type, flame retardant epoxy resin powder coating(UL94/V-0)
- Tinned copper-clad steel wire
- Low dissipation under high frequency, strong over-current ability, excellent shock resistance
- Excellent temperature characteristics and long life

Typical Applications

- Widely applied in high frequency, DC and pulse circuits of TV, PC monitor, lamp and ballast

Outline Drawing



Forming lead shapes			
I	II	III	IV
$P \geq F$		$P < F$	
$0\text{mm} \leq P-F \leq 3\text{mm}$	$3\text{mm} < P-F \leq 8\text{mm}$	$3\text{mm} < F-P \leq 5\text{mm}$	$0\text{mm} < F-P \leq 3\text{mm}$
$F \pm 0.8\text{mm}; A \leq 4.5\text{mm}; B = 4.0 \pm 0.5\text{mm}$			

Specifications

Reference standard	GB/T 10188 (IEC 60384 -13)	
Climatic category	40/105/21	
Operating temperature range	-40℃~+105℃ (+85℃~+105℃:decreasing factor 1.25% per °C for U _R)	
Rated temperature	85℃	
Rated voltage	100Vd.c.,160Vd.c.,250Vd.c.,400Vd.c.,450Vd.c.,630Vd.c.,1000Vd.c.	
Capacitance range	0.00068μF~0.15μF	
Capacitance tolerance	±5%(J) , ±10%(K)	
Voltage proof	2.0U _R (5s)	
Dissipation factor	≤0.0010 (1kHz , 20℃)	
Insulation resistance	≥50000MΩ,C _N ≤0.1μF ≥5000s,C _N >0.1μF	(20℃,100Vd.c,1min)

Ordering Information

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
H C B B 1 3						/													(x	x	x)		
Series code						DC rated voltage		Rated capacitance value		Capacitance tolerance		Pitch		Internal code		lead form and packaging code				Internal code					
						2A=100V		For example: 103=10×10 ³ pF =0.01μF		J=±5% K=±10%		3=7.5mm 4=10mm 6=15mm		0=(Standard part)		See table 1				To identify when the special requirements needed					
						2C=160V																			
						2E=250V																			
						2G=400V																			
						2S=450V																			
						2J=630V																			
						3A=1000V																			

Table 1 Terminal code

Digit 16		Digit 17		Digit 18		Digit 19	
Code	explanation	Code	explanation	Code	explanation	Code	explanation
A	ammo-pack	2 3 4 6	F=5.0mm F=7.5mm F=10.0mm F=15.0mm	0	straight	1	Between two consecutive mounting holes P3=12.7mm, H=18.0mm (Pitch=5.0/7.5mm)
						5	P3=25.4mm, H=18.0mm (Pitch=10.0/15.0mm)
				1	crimped	A	Between two consecutive mounting holes P3=12.7mm, H=20.0mm (Pitch=5.0/7.5mm)
						E	P3=25.4mm, H=20.0mm (Pitch=10.0/15.0mm)
		F	crimped	2 3 4 6	F=5.0mm F=7.5mm F=10.0mm F=15.0mm	0	B=4.0mm
C	straight lead (bulk package)	00	standard 18mm(min.)			0	length tolerance ±0.5mm
		40	lead length 4.0mm				

Outline Dimensions

100/160Vd.c.(63Va.c.)													
C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information	C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information
0.00068	10.5	8.5	4.5	7.5	0.6	HCBB13/2A681-30****	0.0068	10.5	10.1	6.0	7.5	0.6	HCBB13/2A682-30****
0.00082	10.5	8.7	4.7	7.5	0.6	HCBB13/2A821-30****	0.0082	10.5	9.5	5.5	7.5	0.6	HCBB13/2A822-30****
0.001	10.5	8.5	4.5	7.5	0.6	HCBB13/2A102-30****	0.01	10.5	10.0	6.0	7.5	0.6	HCBB13/2A103-30****
0.0012	10.5	8.8	4.7	7.5	0.6	HCBB13/2A122-30****	0.0082	13.0	8.5	4.5	10.0	0.6	HCBB13/2A822-40****
0.0015	10.5	8.5	4.5	7.5	0.6	HCBB13/2A152-30****	0.01	13.0	8.8	4.8	10.0	0.6	HCBB13/2A103-40****
0.0018	10.5	8.7	4.5	7.5	0.6	HCBB13/2A182-30****	0.012	13.0	8.7	4.6	10.0	0.6	HCBB13/2A123-40****
0.0022	10.5	9.0	5.0	7.5	0.6	HCBB13/2A222-30****	0.015	13.0	9.5	4.7	10.0	0.6	HCBB13/2A153-40****
0.0027	10.5	9.2	5.0	7.5	0.6	HCBB13/2A272-30****	0.018	13.0	9.8	5.0	10.0	0.6	HCBB13/2A183-40****
0.0033	10.5	9.5	5.5	7.5	0.6	HCBB13/2A332-30****	0.022	13.0	10.2	5.5	10.0	0.6	HCBB13/2A223-40****
0.0039	10.5	9.0	5.0	7.5	0.6	HCBB13/2A392-30****	0.027	13.0	10.0	5.2	10.0	0.6	HCBB13/2A273-40****
0.0047	10.5	9.5	5.5	7.5	0.6	HCBB13/2A472-30****	0.033	13.0	10.5	5.5	10.0	0.6	HCBB13/2A333-40****
0.0056	10.5	9.7	5.7	7.5	0.6	HCBB13/2A562-30****	0.039	13.0	10.8	5.9	10.0	0.6	HCBB13/2A393-40****

Notes: (1) "-"=capacitance tolerance code, J= $\pm 5\%$, K= $\pm 10\%$;
(2) "****"=terminal code and packaging code (see table 1);
(3) When the rated voltage is 160V, the digit 8~9 is 2C.

Outline Dimensions

100/160Vd.c.(63Va.c.)													
C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information	C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information
0.047	13.0	11.2	6.5	10.0	0.6	HCBB13/2A473-40****	0.056	18.0	10.7	5.8	15.0	0.6	HCBB13/2A563-60****
0.022	18.0	8.5	4.5	15.0	0.6	HCBB13/2A223-60****	0.068	18.0	11.0	6.3	15.0	0.6	HCBB13/2A683-60****
0.027	18.0	9.4	4.5	15.0	0.6	HCBB13/2A273-60****	0.082	18.0	12.0	6.5	15.0	0.6	HCBB13/2A823-60****
0.033	18.0	9.7	5.0	15.0	0.6	HCBB13/2A333-60****	0.1	18.0	12.7	7.0	15.0	0.6	HCBB13/2A104-60****
0.039	18.0	10.0	5.0	15.0	0.6	HCBB13/2A393-60****	0.12	18.0	13.2	7.6	15.0	0.6	HCBB13/2A124-60****
0.047	18.0	10.3	5.5	15.0	0.6	HCBB13/2A473-60****	0.15	18.0	14.0	8.5	15.0	0.6	HCBB13/2A154-60****
250Vd.c.(160Va.c.)													
C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information	C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information
0.00068	10.5	8.6	4.5	7.5	0.6	HCBB13/2E681-30****	0.012	13.0	9.1	5.0	10.0	0.6	HCBB13/2E123-40****
0.00082	10.5	8.7	4.7	7.5	0.6	HCBB13/2E821-30****	0.015	13.0	10.0	5.1	10.0	0.6	HCBB13/2E153-40****
0.001	10.5	8.6	4.6	7.5	0.6	HCBB13/2E102-30****	0.018	13.0	10.2	5.5	10.0	0.6	HCBB13/2E183-40****
0.0012	10.5	8.8	4.7	7.5	0.6	HCBB13/2E122-30****	0.022	13.0	10.5	5.8	10.0	0.6	HCBB13/2E223-40****
0.0015	10.5	8.5	4.5	7.5	0.6	HCBB13/2E152-30****	0.027	13.0	11.0	6.2	10.0	0.6	HCBB13/2E273-40****
0.0018	10.5	8.7	4.5	7.5	0.6	HCBB13/2E182-30****	0.033	13.0	11.5	6.7	10.0	0.6	HCBB13/2E333-40****
0.0022	10.5	9.0	5.0	7.5	0.6	HCBB13/2E222-30****	0.039	13.0	12.0	7.2	10.0	0.6	HCBB13/2E393-40****
0.0027	10.5	9.2	5.0	7.5	0.6	HCBB13/2E272-30****	0.022	18.0	9.0	5.0	15.0	0.6	HCBB13/2E223-60****
0.0033	10.5	9.5	5.5	7.5	0.6	HCBB13/2E332-30****	0.027	18.0	9.8	5.0	15.0	0.6	HCBB13/2E273-60****
0.0039	10.5	9.0	5.0	7.5	0.6	HCBB13/2E392-30****	0.033	18.0	10.2	5.5	15.0	0.6	HCBB13/2E333-60****
0.0047	10.5	9.5	5.5	7.5	0.6	HCBB13/2E472-30****	0.039	18.0	10.5	5.7	15.0	0.6	HCBB13/2E393-60****
0.0056	10.5	9.7	5.7	7.5	0.6	HCBB13/2E562-30****	0.047	18.0	10.8	6.0	15.0	0.6	HCBB13/2E473-60****
0.0068	10.5	10.0	6.0	7.5	0.6	HCBB13/2E682-30****	0.056	18.0	11.8	6.3	15.0	0.6	HCBB13/2E563-60****
0.0082	10.5	9.5	5.6	7.5	0.6	HCBB13/2E822-30****	0.068	18.0	12.3	6.8	15.0	0.6	HCBB13/2E683-60****
0.01	10.5	10.0	6.0	7.5	0.6	HCBB13/2E103-30****	0.082	18.0	12.9	7.3	15.0	0.6	HCBB13/2E823-60****
0.0082	13.0	8.5	4.5	10.0	0.6	HCBB13/2E822-40****	0.1	18.0	13.5	7.8	15.0	0.6	HCBB13/2E104-60****
0.01	13.0	8.8	4.8	10.0	0.6	HCBB13/2E103-40****							

Notes: (1) "-"=capacitance tolerance code, J=±5%, K=±10%;
(2) "****"=terminal code and packaging code (see table 1);
(3) When the rated voltage is 160V, the digit 8~9 is 2C.

Outline Dimensions

400/450Vd.c.(200Va.c.)													
C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information	C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information
0.00068	10.5	8.6	4.5	7.5	0.6	HCBB13/2G681-30****	0.01	13.0	9.0	5.0	10.0	0.6	HCBB13/2G103-40****
0.00082	10.5	8.7	4.7	7.5	0.6	HCBB13/2G821-30****	0.012	13.0	9.5	5.3	10.0	0.6	HCBB13/2G123-40****
0.001	10.5	8.6	4.5	7.5	0.6	HCBB13/2G102-30****	0.015	13.0	10.3	5.5	10.0	0.6	HCBB13/2G153-40****
0.0012	10.5	8.8	4.7	7.5	0.6	HCBB13/2G122-30****	0.018	13.0	10.7	5.8	10.0	0.6	HCBB13/2G183-40****
0.0015	10.5	8.5	4.5	7.5	0.6	HCBB13/2G152-30****	0.022	13.0	11.1	6.3	10.0	0.6	HCBB13/2G223-40****
0.0018	10.5	8.7	4.5	7.5	0.6	HCBB13/2G182-30****	0.027	13.0	11.6	6.8	10.0	0.6	HCBB13/2G273-40****
0.0022	10.5	8.9	4.9	7.5	0.6	HCBB13/2G222-30****	0.033	13.0	12.2	7.5	10.0	0.6	HCBB13/2G333-40****
0.0027	10.5	9.2	5.1	7.5	0.6	HCBB13/2G272-30****	0.039	13.0	12.7	7.9	10.0	0.6	HCBB13/2G393-40****
0.0033	10.5	9.5	5.4	7.5	0.6	HCBB13/2G332-30****	0.022	18.0	9.5	5.3	15.0	0.6	HCBB13/2G223-60****
0.0039	10.5	9.1	5.1	7.5	0.6	HCBB13/2G392-30****	0.027	18.0	10.3	5.5	15.0	0.6	HCBB13/2G273-60****
0.0047	10.5	9.4	5.4	7.5	0.6	HCBB13/2G472-30****	0.033	18.0	10.7	5.8	15.0	0.6	HCBB13/2G333-60****
0.0056	10.5	9.7	5.7	7.5	0.6	HCBB13/2G562-30****	0.039	18.0	11.0	6.2	15.0	0.6	HCBB13/2G393-60****
0.0068	10.5	10.1	6.0	7.5	0.6	HCBB13/2G682-30****	0.047	18.0	11.5	6.7	15.0	0.6	HCBB13/2G473-60****
0.0082	10.5	9.5	5.6	7.5	0.6	HCBB13/2G822-30****	0.056	18.0	12.5	6.9	15.0	0.6	HCBB13/2G563-60****
0.01	10.5	10.0	6.0	7.5	0.6	HCBB13/2G103-30****	0.068	18.0	13.0	7.5	15.0	0.6	HCBB13/2G683-60****
0.0082	13.0	8.8	4.8	10.0	0.6	HCBB13/2G822-40****							
630Vd.c.(220Va.c.)													
C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information	C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information
0.00068	10.5	8.6	4.5	7.5	0.6	HCBB13/2J681-30****	0.0082	13.0	9.4	5.4	10.0	0.6	HCBB13/2J822-40****
0.00082	10.5	8.7	4.7	7.5	0.6	HCBB13/2J821-30****	0.01	13.0	9.8	5.7	10.0	0.6	HCBB13/2J103-40****
0.001	10.5	8.6	4.6	7.5	0.6	HCBB13/2J102-30****	0.012	13.0	10.1	6.1	10.0	0.6	HCBB13/2J123-40****
0.0012	10.5	8.8	4.7	7.5	0.6	HCBB13/2J122-30****	0.015	13.0	11.2	6.3	10.0	0.6	HCBB13/2J153-40****
0.0015	10.5	8.5	4.4	7.5	0.6	HCBB13/2J152-30****	0.018	13.0	11.6	6.8	10.0	0.6	HCBB13/2J183-40****
0.0018	10.5	8.7	4.6	7.5	0.6	HCBB13/2J182-30****	0.022	13.0	12.2	7.3	10.0	0.6	HCBB13/2J223-40****
0.0022	10.5	8.9	4.9	7.5	0.6	HCBB13/2J222-30****	0.027	13.0	12.8	8.0	10.0	0.6	HCBB13/2J273-40****
0.0027	10.5	9.2	5.1	7.5	0.6	HCBB13/2J272-30****	0.022	18.0	10.7	5.8	15.0	0.6	HCBB13/2J223-60****
0.0033	10.5	9.5	5.4	7.5	0.6	HCBB13/2J332-30****	0.027	18.0	11.1	6.3	15.0	0.6	HCBB13/2J273-60****
0.0039	10.5	9.1	5.1	7.5	0.6	HCBB13/2J392-30****	0.033	18.0	12.1	6.5	15.0	0.6	HCBB13/2J333-60****
0.0047	10.5	9.4	5.4	7.5	0.6	HCBB13/2J472-30****	0.039	18.0	12.6	6.9	15.0	0.6	HCBB13/2J393-60****
0.0056	10.5	9.7	5.7	7.5	0.6	HCBB13/2J562-30****	0.047	18.0	13.1	7.5	15.0	0.6	HCBB13/2J473-60****
0.0068	10.5	10.1	6.0	7.5	0.6	HCBB13/2J682-30****	0.056	18.0	14.7	7.5	15.0	0.6	HCBB13/2J563-60****

Notes: (1) "-"=capacitance tolerance code, J=±5%, K=±10%; "****"=terminal code and packaging code (see table 1);
(2) When the rated voltage is 450V, the digit 8~9 is 2S.

Outline Dimensions

1000Vd.c.(250Va.c.)													
C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information	C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information
0.00068	10.5	8.6	4.5	7.5	0.6	HCBB13/3A681-30****	0.0018	13.0	9.1	5.1	10	0.6	HCBB13/3A182-40****
0.00082	10.5	8.7	4.7	7.5	0.6	HCBB13/3A821-30****	0.0022	13.0	9.4	5.3	10	0.6	HCBB13/3A222-40****
0.001	10.5	9.0	4.9	7.5	0.6	HCBB13/3A102-30****	0.0027	13.0	9.7	5.7	10	0.6	HCBB13/3A272-40****
0.0012	10.5	9.2	5.1	7.5	0.6	HCBB13/3A122-30****	0.0033	13.0	10.0	6.0	10	0.6	HCBB13/3A332-40****
0.0015	10.5	9.5	5.5	7.5	0.6	HCBB13/3A152-30****	0.0039	13.0	10.9	6.1	10	0.6	HCBB13/3A392-40****
0.0018	10.5	9.8	5.8	7.5	0.6	HCBB13/3A182-30****	0.0047	13.0	11.3	6.5	10	0.6	HCBB13/3A472-40****
0.0022	10.5	10.2	6.1	7.5	0.6	HCBB13/3A222-30****	0.0056	13.0	11.7	6.9	10	0.6	HCBB13/3A562-40****
0.001	13.0	9.2	5.1	10	0.6	HCBB13/3A102-40****	0.0068	13.0	12.2	7.4	10	0.6	HCBB13/3A682-40****
0.0012	13.0	9.4	5.4	10	0.6	HCBB13/3A122-40****	0.0082	13.0	12.8	7.9	10	0.6	HCBB13/3A822-40****
0.0015	13.0	8.9	4.8	10	0.6	HCBB13/3A152-40****	0.01	13.0	13.4	8.6	10	0.6	HCBB13/3A103-40****
1000Vd.c.(250Va.c.)													
C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information	C _N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	d (mm)	Ordering Information
0.0027	18.0	8.7	4.6	15	0.6	HCBB13/3A272-60****	0.01	18.0	11.2	6.4	15	0.6	HCBB13/3A103-60****
0.0039	18.0	9.7	4.8	15	0.6	HCBB13/3A392-60****	0.012	18.0	12.1	6.5	15	0.6	HCBB13/3A123-60****
0.0047	18.0	9.9	5.1	15	0.6	HCBB13/3A472-60****	0.015	18.0	12.7	7.1	15	0.6	HCBB13/3A153-60****
0.0056	18.0	10.1	5.3	15	0.6	HCBB13/3A562-60****	0.018	18.0	14.3	7.1	15	0.6	HCBB13/3A183-60****
0.0068	18.0	10.4	5.6	15	0.6	HCBB13/3A682-60****	0.022	18.0	14.9	7.7	15	0.6	HCBB13/3A223-60****
0.0082	18.0	10.8	5.9	15	0.6	HCBB13/3A822-60****							

Notes: (1) "-"=capacitance tolerance code, J=±5%, K=±10%;

(2) "****"=terminal code and packaging code (see table 1).