

# HCBB62X2T

Metallized Polypropylene Film Interference Suppression Capacitor(Class X2, 350Va.c., THB Grade IIIB)



## Features

- Metallized polypropylene film
- Capable of withstanding over-voltage stress
- Excellent self-healing performance
- UL94-V0 compliant
- Excellent long-term capacitance stability under harsh environments (e.g., high temperature and high humidity)
- Automotive (AEC-Q200) grade

## Typical Applications

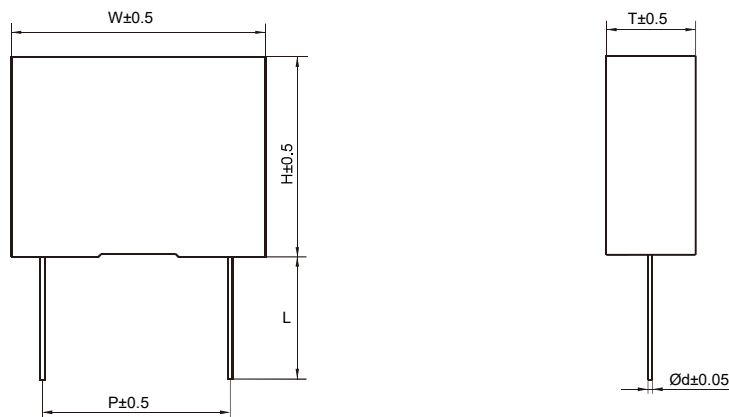
- For use in electromagnetic interference (EMI) suppression in across-the-line applications  
Typical application includes operation in harsh environments such as high temperature and high humidity

## Safety Approvals

	CQC	GB/T 6346.14	0.1μF~20μF,350Va.c.,40/110/56B File No.: CQC21001289371
	ENEC-VDE	EN 60384-14 IEC 60384-14	0.1μF~20μF,350Va.c.,40/110/56B File No.: 125834
	UL/CUL	UL 60384-14 CSA E60384-1:14 CSA E60384-14:14	0.1μF~20μF,350Va.c.,40/110/56B File No.: E311928

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

## Outline Drawing

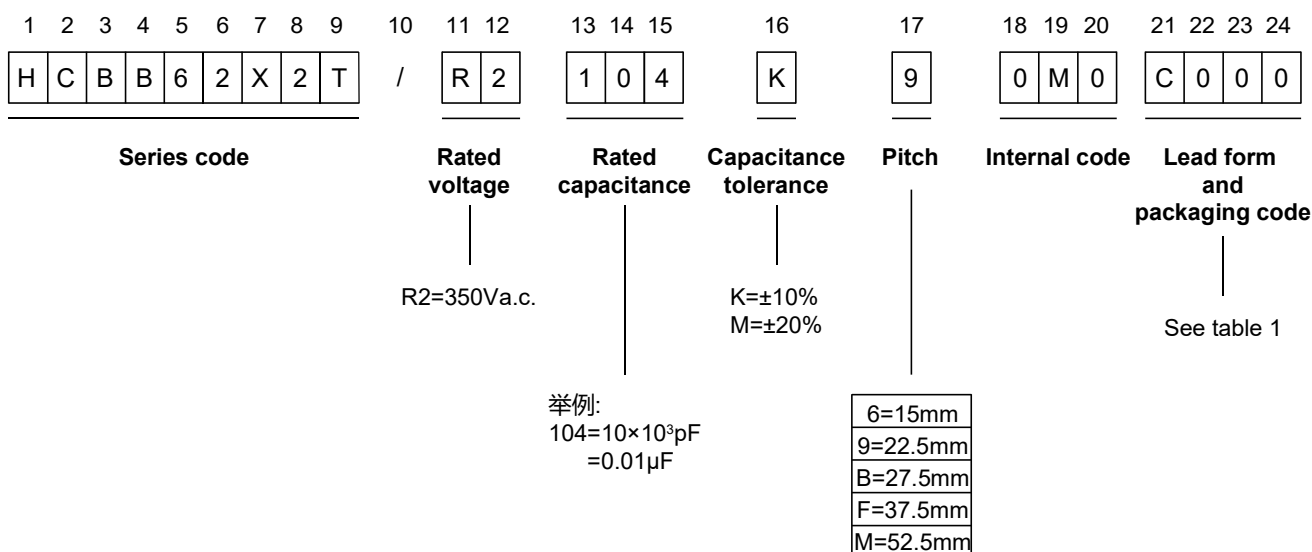


Notes: All product dimensions are in mm.  
See the Outline Dimensions table for details.

Specifications

Reference standards		IEC 60384-14, GB/T 6346.14				
Rated voltage	U <sub>R</sub>	350Va.c. (50 Hz/60 Hz)				
Permissible DC voltage	U <sub>DC</sub>	650Vd.c. T <sub>op</sub> ≤85°C 1.33%/°C derating when 85°C<T <sub>op</sub> ≤110°C				
Capacitance range	C <sub>N</sub>	0.1μF~20μF				
Capacitance tolerance		±10%(K), ±20%(M)				
Dissipation factor	tanδ	0.1μF≤C <sub>N</sub> ≤1.0μF		≤40×10 <sup>-4</sup> (10kHz)		
		1.0μF<C <sub>N</sub> ≤10.0μF		≤30×10 <sup>-4</sup> (1kHz)		
		10.0μF<C <sub>N</sub> ≤20.0μF		≤40×10 <sup>-4</sup> (1kHz)		
Insulation resistance (20°C, 100V, 1min)	IR	C <sub>N</sub> ≤0.33μF		IR≥15000MΩ		
		C <sub>N</sub> >0.33μF		IR·C <sub>N</sub> ≥5000s		
Climatic category/ Passive flammability category		40/110/56/B				
Operating temperature range	T <sub>OP</sub>	-40°C~+110°C				
Voltage proof	U <sub>t-t</sub>	Between terminals			4.3U <sub>R</sub> (Vd.c.), 2s	
	U <sub>t-c</sub>	Between terminals and case			2120Va.c., 1min	
THB test (Damp heat test with loading)	THB	Temperature: 85°C±2°C; Humidity: 85%RH±2%RH Voltage: 300 Va.c. 50 Hz; Duration: 1000 hours Capacitance change(ΔC/C): ≤10% Dissipation factor change (Δtanδ): ≤0.015(1kHz) Insulation resistance: ≥ 50% of the rated value				
Pulse handling capability	Lead spacing	15mm	22.5mm	27.5mm	37.5mm	52.5mm
	dV/dt (V/μs)	400	200	150	100	40
	"dV/dt" represents the maximum permissible voltage change per unit of time for non-sinusoidal voltages, expressed in V/μs.					

Ordering Information



**Lead form and packaging code**

Digit 21		Digit 22		Digit 23		Digit 24	
Code	Explanation	Code	Explanation	Code	Explanation	Code	Explanation
A	Tape package <sup>1)</sup>	3	F=7.5mm	0	Straight	1	Taping lead space: P <sub>3</sub> =12.7mm,H=18.0mm(Pitch=7.5mm)
		4	F=10mm				5
		6	F=15mm			1	
		7	F=22.5mm				
		8	F=27.5mm				
C	Straight Lead (bulk) <sup>2)</sup>	00	Standard lead length(18mm ~ 28mm)	0		0	Standard lead length
		35	Lead length3.5mm <sup>3)</sup>				Lead length tolerance±0.5mm

- Notes:** 1) If the lead length is 4.5 mm, the code is C450, and so on.  
 2) For more details on Ammo-pack, please refer to the Overview of the Universal Capacitors.  
 3) Other lead form and packaging options are available upon customer request.

**Outline Dimensions**

Unit: mm

350Va.c.													
C <sub>N</sub> (μF)	W	H	T	P	d	Ordering Information	C <sub>N</sub> (μF)	W	H	T	P	d	Ordering Information
0.10	18.0	13.5	7.5	15.0	0.6	HCBB62X2T/R2104+60M0****	0.56	26.5	19.0	10.0	22.5	0.8	HCBB62X2T/R2564+90M0****
0.12	18.0	13.5	7.5	15.0	0.6	HCBB62X2T/R2124+60M0****	0.68	26.5	20.0	11.0	22.5	0.8	HCBB62X2T/R2684+90M0****
0.15	18.0	14.5	8.5	15.0	0.8	HCBB62X2T/R2154+60M0****	0.82	26.5	22.0	12.0	22.5	0.8	HCBB62X2T/R2824+90M0****
0.18	18.0	14.5	8.5	15.0	0.8	HCBB62X2T/R2184+60M0****	1.0	26.5	23.0	13.5	22.5	0.8	HCBB62X2T/R2105+90M0****
0.22	18.0	16.0	10.0	15.0	0.8	HCBB62X2T/R2224+60M0****	1.2	26.5	24.5	14.5	22.5	0.8	HCBB62X2T/R2125+90M0****
0.27	18.0	16.0	10.0	15.0	0.8	HCBB62X2T/R2274+60M0****	1.5	26.5	29.5	14.5	22.5	0.8	HCBB62X2T/R2155+90M0****
0.33	18.0	19.0	11.0	15.0	0.8	HCBB62X2T/R2334+60M0****	1.8	26.5	31.0	15.5	22.5	0.8	HCBB62X2T/R2185+90M0****
0.10	26.5	15.0	6.0	22.5	0.8	HCBB62X2T/R2104+90M0****	0.33	32.0	18.0	9.0	27.5	0.8	HCBB62X2T/R2334+B0M0****
0.12	26.5	15.0	6.0	22.5	0.8	HCBB62X2T/R2124+90M0****	0.39	32.0	18.0	9.0	27.5	0.8	HCBB62X2T/R2394+B0M0****
0.15	26.5	16.0	7.0	22.5	0.8	HCBB62X2T/R2154+90M0****	0.47	32.0	18.0	9.0	27.5	0.8	HCBB62X2T/R2474+B0M0****
0.18	26.5	16.0	7.0	22.5	0.8	HCBB62X2T/R2184+90M0****	0.56	32.0	18.0	9.0	27.5	0.8	HCBB62X2T/R2564+B0M0****
0.22	26.5	16.0	7.0	22.5	0.8	HCBB62X2T/R2224+90M0****	0.68	32.0	20.0	11.0	27.5	0.8	HCBB62X2T/R2684+B0M0****
0.27	26.5	16.0	7.0	22.5	0.8	HCBB62X2T/R2274+90M0****	0.82	32.0	20.0	11.0	27.5	0.8	HCBB62X2T/R2824+B0M0****
0.33	26.5	17.0	8.5	22.5	0.8	HCBB62X2T/R2334+90M0****	1.0	32.0	22.0	13.0	27.5	0.8	HCBB62X2T/R2105+B0M0****
0.39M	26.5	17.0	8.5	22.5	0.8	HCBB62X2T/R2394M90M0****	1.2	32.0	22.0	13.0	27.5	0.8	HCBB62X2T/R2125+B0M0****
0.39K	26.5	19.0	10.0	22.5	0.8	HCBB62X2T/R2394K90M0****	1.5	32.0	24.5	15.0	27.5	0.8	HCBB62X2T/R2155+B0M0****
0.47	26.5	19.0	10.0	22.5	0.8	HCBB62X2T/R2474+90M0****	1.8	32.0	28.0	14.0	27.5	0.8	HCBB62X2T/R2185+B0M0****

- Notes:** 1) "+" means capacitance tolerance code,K=±10%,M=±20%;  
 2) "\*\*\*\*" means lead form and packaging code ( See table 1 ).

Outline Dimensions

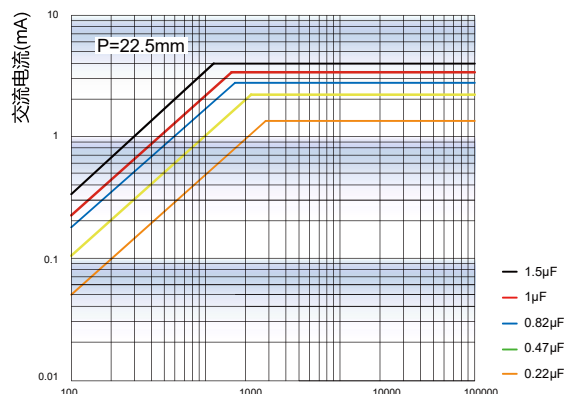
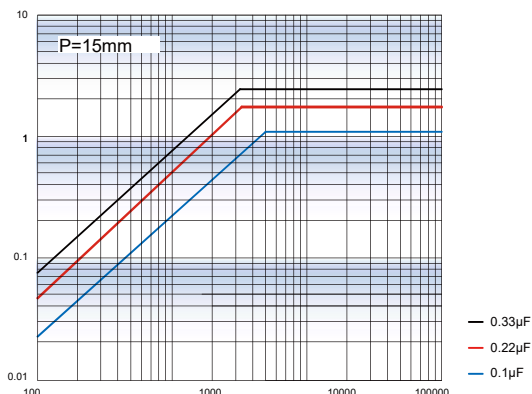
Unit: mm

350Va.c.													
C <sub>N</sub> (μF)	W	H	T	P	d	Ordering Information	C <sub>N</sub> (μF)	W	H	T	P	d	Ordering Information
2.2	32.0	30.0	16.0	27.5	0.8	HCBB62X2T/R2225+B0M0****	3.3M	42.0	30.0	16.0	37.5	1.0	HCBB62X2T/R2335MF0M0****
2.7	32.0	33.0	18.0	27.5	0.8	HCBB62X2T/R2275+B0M0****	3.3K	42.0	32.0	17.0	37.5	1.0	HCBB62X2T/R2335KF0M0****
3.3M	32.0	33.0	18.0	27.5	0.8	HCBB62X2T/R2335MB0M0****	3.9	42.0	34.0	20.0	37.5	1.0	HCBB62X2T/R2395+F0M0****
3.3K	32.0	38.0	18.0	27.5	0.8	HCBB62X2T/R2335KB0M0****	4.7M	42.0	34.0	20.0	37.5	1.0	HCBB62X2T/R2475MF0M0****
3.9	32.0	37.0	22.0	27.5	0.8	HCBB62X2T/R2395+B0M0****	4.7K	42.0	37.0	22.0	37.5	1.0	HCBB62X2T/R2475KF0M0****
4.7M	32.0	37.0	22.0	27.5	0.8	HCBB62X2T/R2475MB0M0****	5.6	42.0	37.0	22.0	37.5	1.0	HCBB62X2T/R2565+F0M0****
4.7K	32.0	38.0	24.0	27.5	0.8	HCBB62X2T/R2475KB0M0****	6.8M	42.0	37.0	24.0	37.5	1.0	HCBB62X2T/R2685MF0M0****
0.68	42.0	22.0	11.0	37.5	1.0	HCBB62X2T/R2684+F0M0****	6.8K	42.0	37.0	26.0	37.5	1.0	HCBB62X2T/R2685KF0M0****
0.82	42.0	22.0	11.0	37.5	1.0	HCBB62X2T/R2824+F0M0****	8.2	42.0	43.0	28.0	37.5	1.0	HCBB62X2T/R2825+F0M0****
1.0	42.0	22.0	11.0	37.5	1.0	HCBB62X2T/R2105+F0M0****	10.0	42.0	45.0	30.0	37.5	1.0	HCBB62X2T/R2106+F0M0****
1.2	42.0	22.0	11.0	37.5	1.0	HCBB62X2T/R2125+F0M0****	12.0	57.5	45.0	30.0	52.5	1.2	HCBB62X2T/R2126+M0M0****
1.5	42.0	24.0	13.0	37.5	1.0	HCBB62X2T/R2155+F0M0****	15.0M	57.5	45.0	30.0	52.5	1.2	HCBB62X2T/R2156MM0M0****
1.8	42.0	26.0	15.0	37.5	1.0	HCBB62X2T/R2185+F0M0****	15.0K	57.5	48.0	30.0	52.5	1.2	HCBB62X2T/R2156KM0M0****
2.2	42.0	26.0	15.0	37.5	1.0	HCBB62X2T/R2225+F0M0****	18.0	57.5	50.0	35.0	52.5	1.2	HCBB62X2T/R2186+M0M0****
2.7	42.0	30.0	16.0	37.5	1.0	HCBB62X2T/R2275+F0M0****	20.0M	57.5	50.0	35.0	52.5	1.2	HCBB62X2T/R2206MM0M0****

Notes: 1) "+" means capacitance tolerance code, K=±10%, M=±20%;  
 2) "\*\*\*\*" means lead form and packaging code ( See table 1 ).

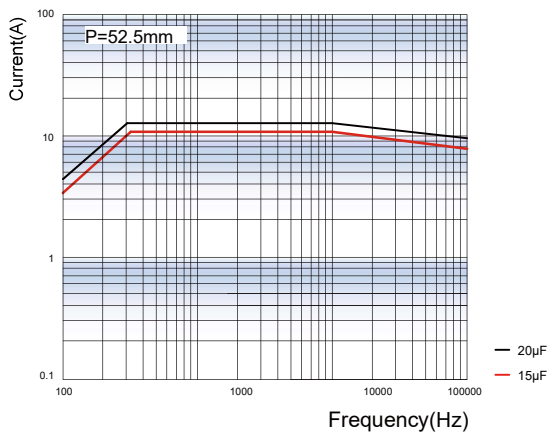
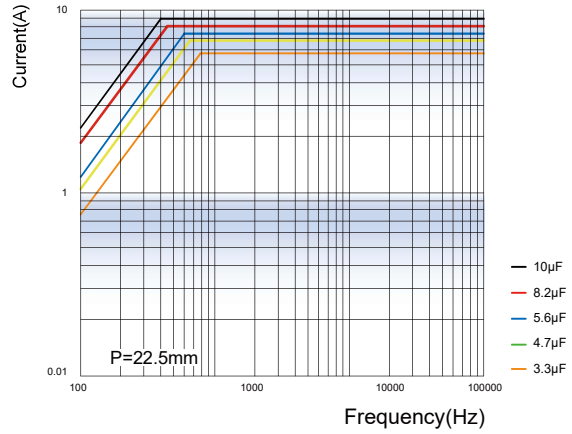
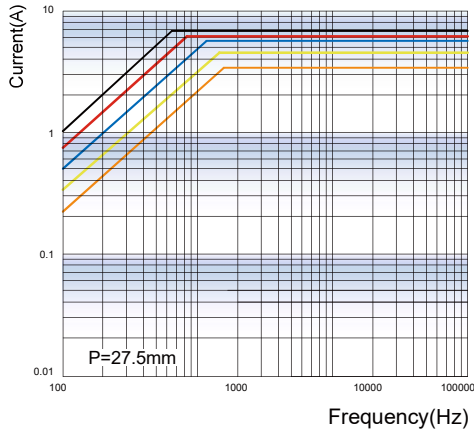
Characteristic Curve (Typical)

Permissible AC current I<sub>RMS</sub> versus frequency f (for sinusoidal waveforms T<sub>op</sub> ≤ 85°C)



Characteristic Curve (Typical)

Permissible AC current  $I_{RMS}$  versus frequency  $f$  (for sinusoidal waveforms  $T_{op} \leq 85^{\circ}C$ )



Impedance  $Z$  versus frequency  $f$

