

# 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
- UL 94 V-0 compliant
- Excellent long-term capacitance stability under harsh environments (e.g., high temperature and high humidity)
- Automotive (AEC-Q200) grade

## Typical Applications

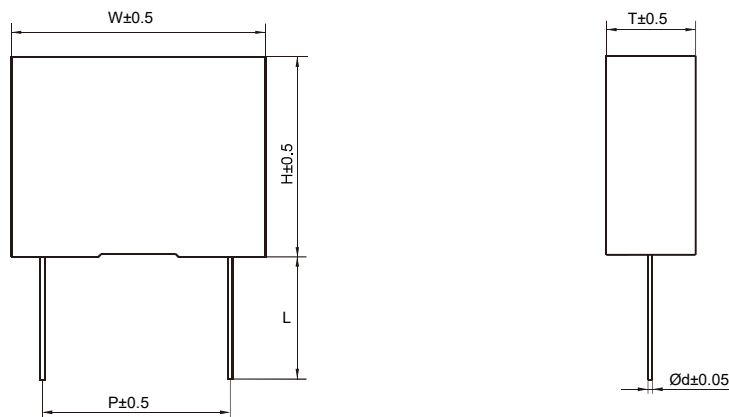
- For use in electromagnetic interference (EMI) suppression in across-the-line applications  
Typical application includes operation in harsh environments such as high temperature and high humidity

## 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

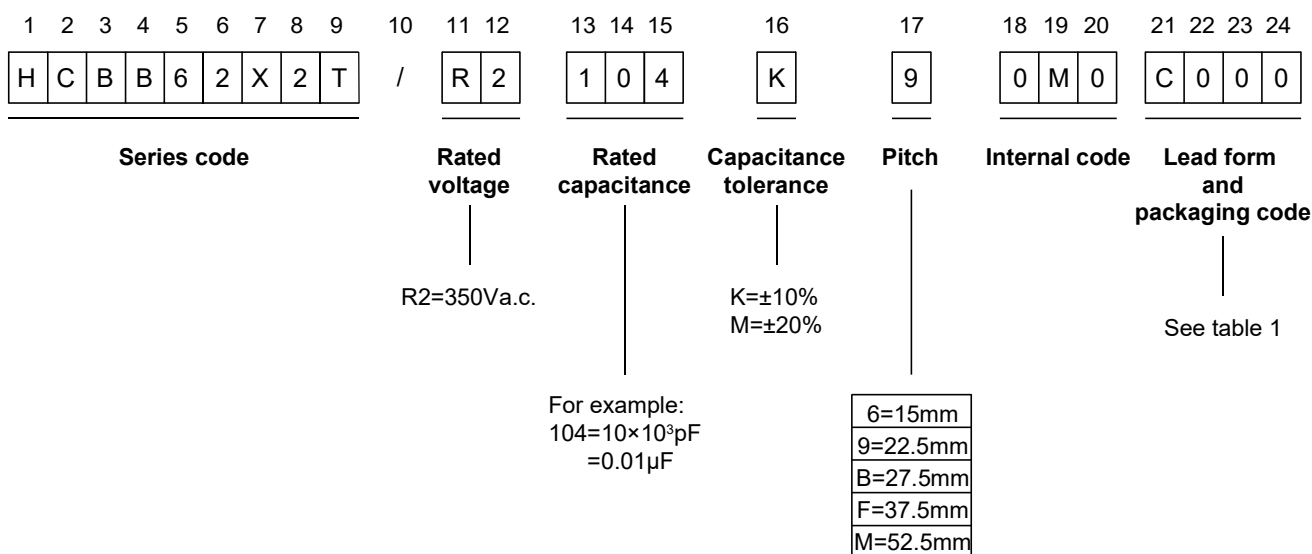


Notes: All product dimensions are in mm.  
See the Outline Dimensions table for details.

**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**



**Table 1: Lead Form and Packaging Code**

Digit 21		Digit 22		Digit 23		Digit 24	
Code	Explanation	Code	Explanation	Code	Explanation	Code	Explanation
A	Ammo-pack <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) For more details on Ammo-pack, please refer to the Overview of the Universal Capacitors.

2) Other lead form and packaging options are available upon customer request.

3) If the lead length is 4.5 mm, the code is C450, etc.

**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,K=±10%,M=±20%;

2) "\*\*\*\*" means lead form and packaging code (See table 1) .

Outline Dimensions

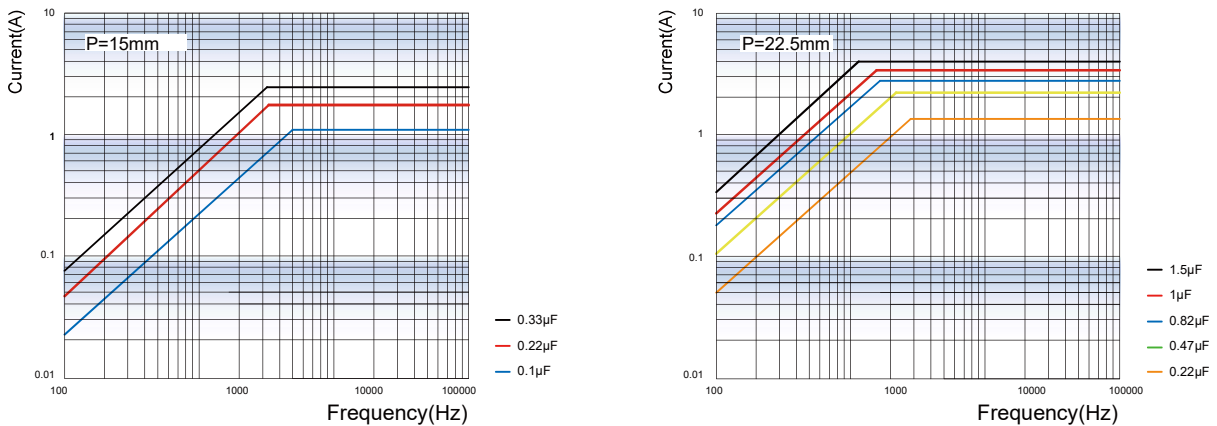
Unit: mm

350V <sub>a.c.</sub>													
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, K=±10%, M=±20%;  
 2) "\*\*\*\*" means lead form and packaging code (See table 1) .

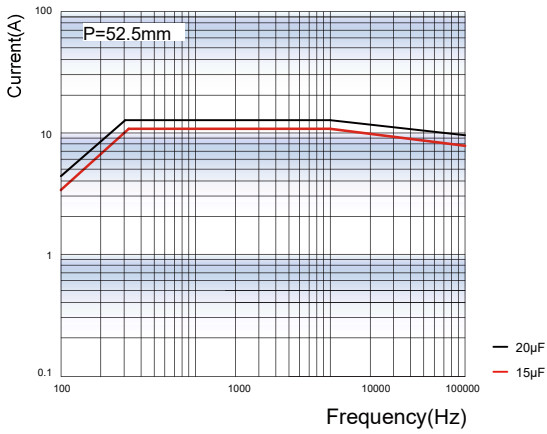
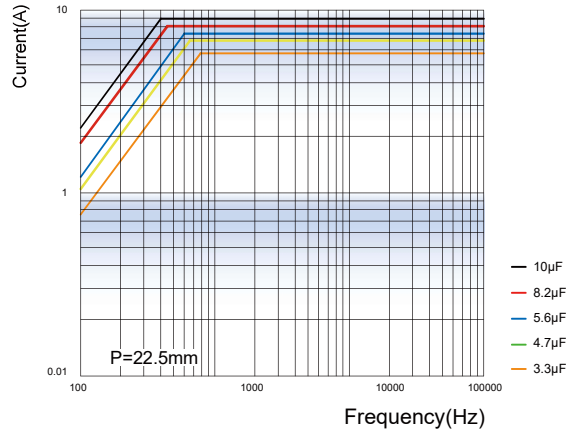
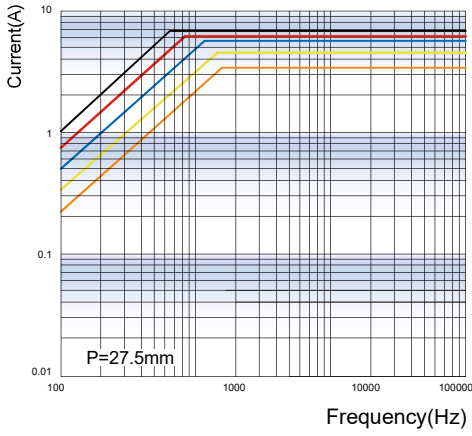
Characteristic Curve (Typical)

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  $f$

