HCBB62X2T

Metallized Polypropylene Film Interference Suppression Capacitor(Class X2, 310Va.c./275 Va.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

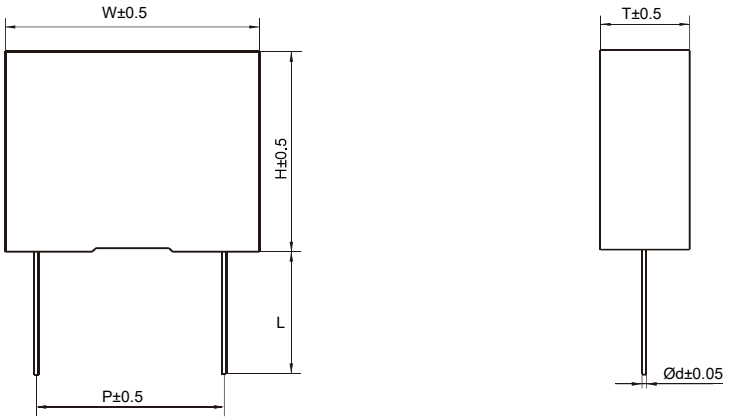
- For use in electromagnetic interference (EMI) suppression in across-the-line applications, Typical application includes operation in harsh environments such as high temperature and high humidity

Safety Approvals

CQC	CQC	GB/T 6346.14	0.022μF - 25μF,310Va.c./275Va.c.,40/110/56B File No.: CQC21001289371
DVE EN	ENEC-VDE	EN 60384-14 IEC 60384- 14	0.022μF - 25μF,310Va.c./275Va.c.,40/110/56B File No.: 125834
c UL us	UL/cUL	UL 60384-14 CSA E60384 - 1:14 CSA E60384 - 14:14	0.022μF - 25μF,310Va.c./275Va.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_R	310Va.c./275Va.c.(50Hz/60Hz)	
Permissible DC voltage	U_{DC}	560Vd.c. at $T_{op}\leqslant 85^{\circ}C$ 1.33%/°C derating when $85^{\circ}C<T_{op}\leqslant 110^{\circ}C$	
Capacitance range	C_N	0.022μF~25μF	
Capacitance tolerance		±10%(K), ±20%(M)	
Dissipation factor	tanδ	0.022μF＜C_N≤1.0μF	≤20×10⁻⁴(10kHz)
		1.0μF＜C_N≤25.0μF	≤30×10⁻⁴(1kHz)
Insulation resistance (20°C,100V,1min)	IR	$C_N\leqslant$0.33μF	IR≥15000MΩ
		C_N＞0.33μF	IR·C_N≥5000s
Climatic category/Passive flammability category		40/110/56/B	
Operating temperature range	T_{OP}	-40°C~+110°C	
Voltage proof	U_{t-t}	Between terminals	4.3U_R(Vd.c.),2s
	U_{t-c}	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:240Va.c. 50Hz; 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
	V/μs	350	200	150	100	50
	"dV/dt" represents the maximum permissible voltage change per unit of time for non-sinusoidal voltages, expressed in V/μs					

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	6	2	X	2	T	/	Q	3	1	0	4	K	6	0	0	0	C	0	0	0
Series code										Rated voltage		Rated capacitance			Capacitance tolerance	Pitch	Internal code			Lead form and packaging code			

Q3=310Va.c.
P2=275Va.c.

K=±10%
M=±20%

See table 1

For example:
104=10×10⁴pF
=0.01μF

6=15mm
9=22.5mm
B=27.5mm
F=37.5mm
M=52.5mm

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[1]	3	F=7.5mm	0	Straight	1	Taping lead space: P_3=12.7mm,H=18.0mm(Pitch=7.5mm)
		4	F=10mm				
		6	F=15mm			5	P_3=25.4mm,H=18.0mm (Pitch=10.0 or 15.0mm)
		7	F=22.5mm	1	Crimped	7	P_3=38mm,H=18.0mm (Pitch=22.5mm or 27.5mm)
		8	F=27.5mm				
C	Straight Lead (bulk)[2]	00	Standard lead length(18mm ~ 28mm)			0	Standard lead length
		35	Lead length3.5mm[3]				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

310Va.c./275Va.c.													
C_N(μF)	W	H	T	P	d	Ordering Information	C_N(μF)	W	H	T	P	d	Ordering Information
0.022	18.0	11.0	5.0	15.0	0.6	HCBB62X2T/Q3223+6000****	0.82	26.5	20.0	11.0	22.5	0.8	HCBB62X2T/Q3824+9000****
0.033	18.0	11.0	5.0	15.0	0.6	HCBB62X2T/Q3333+6000****	1.0	26.5	22.0	12.0	22.5	0.8	HCBB62X2T/Q3105+9000****
0.047	18.0	11.0	5.0	15.0	0.6	HCBB62X2T/Q3473+6000****	1.2	26.5	22.0	12.0	22.5	0.8	HCBB62X2T/Q3125+9000****
0.068	18.0	11.0	5.0	15.0	0.6	HCBB62X2T/Q3683+6000****	1.5	26.5	24.5	14.5	22.5	0.8	HCBB62X2T/Q3155+9000****
0.10	18.0	12.0	6.0	15.0	0.6	HCBB62X2T/Q3104+6000****	1.8	26.5	24.5	15.5	22.5	0.8	HCBB62X2T/Q3185+9000****
0.15	18.0	13.5	7.5	15.0	0.6	HCBB62X2T/Q3154+6000****	2.2	26.5	29.5	14.5	22.5	0.8	HCBB62X2T/Q3225+9000****
0.18	18.0	13.5	7.5	15.0	0.6	HCBB62X2T/Q3184+6000****	0.47	32.0	18.0	9.0	27.5	0.8	HCBB62X2T/Q3474+B000****
0.22	18.0	14.5	8.5	15.0	0.8	HCBB62X2T/Q3224+6000****	0.56	32.0	18.0	9.0	27.5	0.8	HCBB62X2T/Q3564+B000****
0.27	18.0	14.5	8.5	15.0	0.8	HCBB62X2T/Q3274+6000****	0.68	32.0	18.0	9.0	27.5	0.8	HCBB62X2T/Q3684+B000****
0.33	18.0	16.0	10.0	15.0	0.8	HCBB62X2T/Q3334+6000****	0.82	32.0	20.0	11.0	27.5	0.8	HCBB62X2T/Q3824+B000****
0.39	18.0	19.0	11.0	15.0	0.8	HCBB62X2T/Q3394+6000****	1.0	32.0	20.0	11.0	27.5	0.8	HCBB62X2T/Q3105+B000****
0.47	18.0	19.0	11.0	15.0	0.8	HCBB62X2T/Q3474+6000****	1.2	32.0	22.0	13.0	27.5	0.8	HCBB62X2T/Q3125+B000****
0.15	26.5	15.0	6.0	22.5	0.8	HCBB62X2T/Q3154+9000****	1.5	32.0	22.0	13.0	27.5	0.8	HCBB62X2T/Q3155+B000****
0.22	26.5	15.0	6.0	22.5	0.8	HCBB62X2T/Q3224+9000****	1.8	32.0	25.0	13.0	27.5	0.8	HCBB62X2T/Q3185+B000****
0.33	26.5	16.0	7.0	22.5	0.8	HCBB62X2T/Q3334+9000****	2.2	32.0	28.0	14.0	27.5	0.8	HCBB62X2T/Q3225+B000****
0.39	26.5	17.0	8.5	22.5	0.8	HCBB62X2T/Q3394+9000****	2.7	32.0	30.0	16.0	27.5	0.8	HCBB62X2T/Q3275+B000****
0.47	26.5	17.0	8.5	22.5	0.8	HCBB62X2T/Q3474+9000****	3.3	32.0	33.0	18.0	27.5	0.8	HCBB62X2T/Q3335+B000****
0.56	26.5	19.0	10.0	22.5	0.8	HCBB62X2T/Q3564+9000****	3.9	32.0	33.0	18.0	27.5	0.8	HCBB62X2T/Q3395+B000****
0.68	26.5	19.0	10.0	22.5	0.8	HCBB62X2T/Q3684+9000****	4.7	32.0	37.0	22.0	27.5	0.8	HCBB62X2T/Q3475+B000****

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

Outline Dimensions

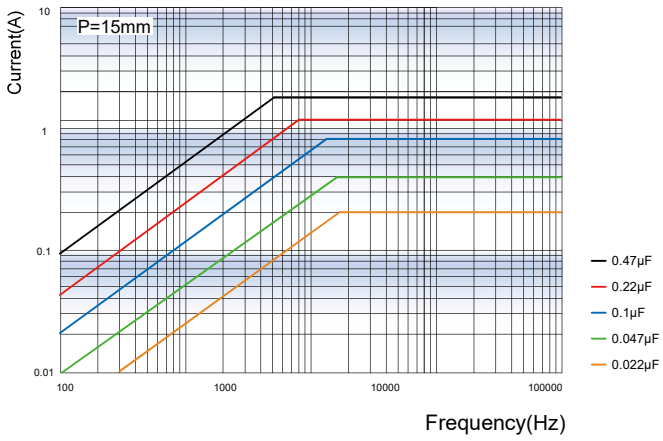
Unit: mm

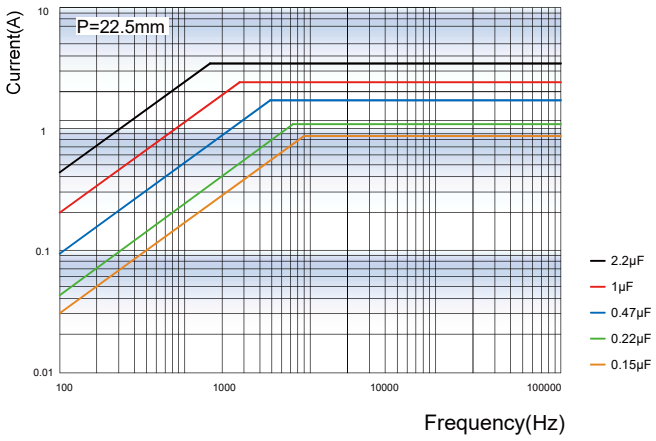
310Va.c./275Va.c.													
CN(μF)	W	H	T	P	d	Ordering Information	CN(μF)	W	H	T	P	d	Ordering Information
1.5	42.0	22.0	11.0	37.5	1.0	HCBB62X2T/Q3155+F000****	6.8	42.0	37.0	22.0	37.5	1.0	HCBB62X2T/Q3685+F000****
1.8	42.0	22.0	11.0	37.5	1.0	HCBB62X2T/Q3185+F000****	8.2	42.0	37.0	26.0	37.5	1.0	HCBB62X2T/Q3825+F000****
2.2	42.0	24.0	13.0	37.5	1.0	HCBB62X2T/Q3225+F000****	10.0	42.0	41.0	26.0	37.5	1.0	HCBB62X2T/Q3106+F000****
2.7	42.0	28.0	14.0	37.5	1.0	HCBB62X2T/Q3275+F000****	12.0	42.0	43.0	28.0	37.5	1.0	HCBB62X2T/Q3126+F000****
3.3	42.0	30.0	16.0	37.5	1.0	HCBB62X2T/Q3335+F000****	15.0	42.0	50.0	30.0	37.5	1.0	HCBB62X2T/Q3156+F000****
3.9	42.0	30.0	16.0	37.5	1.0	HCBB62X2T/Q3395+F000****	18.0	57.5	45.0	30.0	52.5	1.2	HCBB62X2T/Q3186+M000****
4.7	42.0	32.0	17.0	37.5	1.0	HCBB62X2T/Q3475+F000****	20.0	57.5	45.0	30.0	52.5	1.2	HCBB62X2T/Q3206+M000****
5.6	42.0	34.0	20.0	37.5	1.0	HCBB62X2T/Q3565+F000****	25.0	57.5	50.0	35.0	52.5	1.2	HCBB62X2T/Q3256+M000****

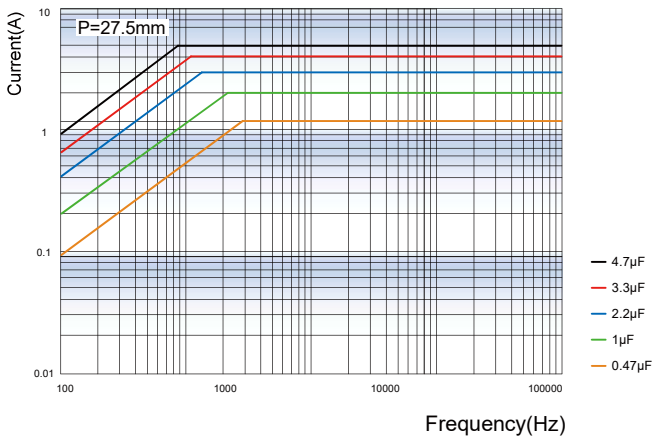
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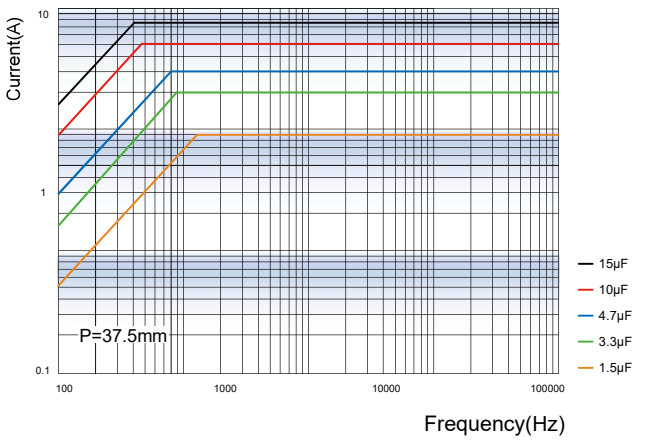
Characteristic Curve (Typical)

Permissible AC current IRMS versus frequency f (for sonusoidal waveforms TOP≤85℃)



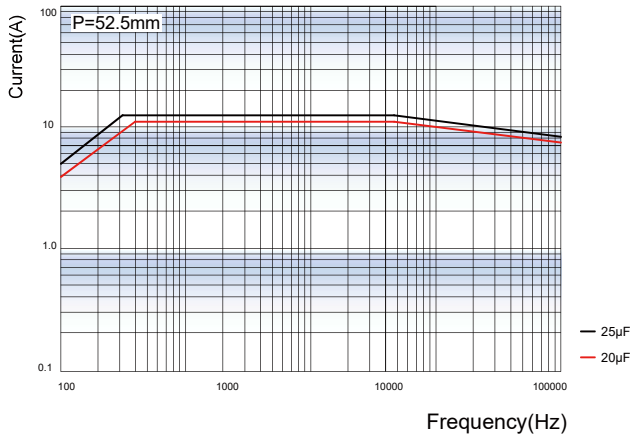






Characteristic Curve (Typical)

Permissible AC current I_{RMS} versus frequency f (for sonusoidal waveforms $T_{OP} \leqslant 85^{\circ}C$)



Impedance Z versus frequency f

