

Film Capacitors

Metallized Polypropylene Film Capacitor

Series/Type: CBB21-B(BOX)

Ordering code: CB1*

Date: September 2024

Version: 01

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■ Features

- Metallized polypropylene film
- Low loss at high frequency
- Small inherent temperature rise
- Plastic case(UL 94V-0), epoxy resin sealing

■ Typical Applications

- Widely used in high frequency, DC, AC and pulse circuits
- S-correction circuits for TV sets and monitors

■ Reference Standards

- GB/T 10190(IEC 60384-16)
- UL 810

■ Specifications

- Capacitance range **0.001μF...15μF**
- Capacitance tolerance **±2%(G), ±3%(H), ±5%(J), ±10%(K), ±20%(M)**
- Rated Voltage **250V.dc(160V.ac), 400/450V.dc(220V.ac)
630V.dc(250V.ac), 1000V.dc(400V.ac),
≤2.0×10⁻³**
- Loss factor(tanδ)at 1KHz
- Maximum pulse rise time(dv/dt)

U _R (V)	dv/dt				
	P=7.5	P=10	P=15	P=22.5	P=27.5
250	600	550	300	120	100
400	900	750	550	250	120
630	1500	1200	800	350	/
1000	/	2000	1800	700	/

- Climatic category **40/105/56**
- Operating temperature range **-40℃...105℃
(85℃ to 105℃, decreasing factor 1.25% per °C for U_R)**
- Storage temperature Range **-40℃...105℃**

■ Test data

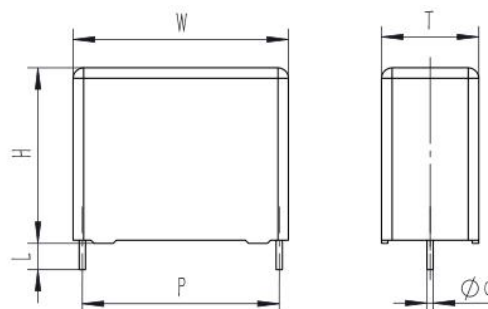
- Capacitance measurement **C_R±2%(G); C_R±3%(H); C_R±5%(J); C_R±10%(K)**
- Test voltage between terminals **1.6U_R@5S**
- Insulation resistance **R≥100,000MΩ, C_R≤0.33μF(20℃, 100V, 60S)
R•C_R≥30,000S, C_R>0.33μF(20℃, 100V, 60S)**
- Loss factor(tanδ)at 1KHz **20×10⁻⁴**

■ **Structure of ordering code**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	B	1	3	1	1	2	2	5	K	6	3	5	L	0	1	G	1
A		B			C			D	E	F		G	H	I	J	K	

- A: Capacitor series
CB1=CBB21-B(BOX)
- B: Rated voltage
如: 631=63*10¹=630V
- C: Rated capacitance
如: 225=22*10⁵=2200000pF=2.2μF
- D: Capacitance tolerance
±2%(G), ±3%(H), ±5%(J), ±10%(K), ±20%(M)
- E: Pitch
2=5.0mm 3=7.5mm 4=10mm 5=12.5mm 6=15mm 9=22.5mm
B=27.5mm D=32.5mm F=37.5mm M=52.5mm
- F: Lead length
35=3.5mm E5=15mm N2=22mm S6=36mm
- G: Pin shape
L=Straight foot R=Right foot K=K foot N=Bend inward foot
W=Bend outside foot
- H: Product features
0=Ordinary 1=Double 85 2=Low noise 3=Low power
- I: Raw material
0=No halogen 1=halogen
- J: Product colour
Y=Yellow G=Grey B=Black U=Blue W=white R=Red E=Green
- H: Inner use

■ **Outline Drawing(Specific according to customer requirements)**



Dimensions(mm)

Ur: 250V.dc(160V.ac)							Ur: 250V.dc(160V.ac)						
Cr(μF)	W	H	T	d	P	Part number	Cr(μF)	W	H	T	d	P	Part number
0.027	10	9	4	0.6	7.5		0.47	26	15	6	0.75	22.5	
0.033	10	9	4	0.6	7.5		0.56	18	13.5	7.5	0.75	15	
0.033	13	9	4	0.6	10		0.56	26	15	6	0.75	22.5	
0.047	10	9	4	0.6	7.5		0.68	18	14.5	8.5	0.75	15	
0.047	13	9	4	0.6	10		0.68	26	15	6	0.75	22.5	
0.056	10	9	4	0.6	7.5		0.82	18	16	10	0.75	15	
0.056	13	9	4	0.6	10		0.82	26	15	6	0.75	22.5	
0.068	10	9	4	0.6	7.5		0.82	31	18	9	0.75	27.5	
0.068	13	9	4	0.6	10		1.0	18	16	10	0.75	15	
0.082	10	11	5	0.6	7.5		1.0	26.5	16.5	7.5	0.75	22.5	
0.082	13	9	4	0.6	10		1.0	31	18	9	0.75	27.5	
0.10	10	11	5	0.6	7.5		1.2	18	19	11	0.75	15	
0.10	13	11	5	0.6	10		1.2	26.5	17	8.5	0.75	22.5	
0.10	18	11	5	0.75	15		1.2	31	18	9	0.75	27.5	
0.12	10	11	5	0.6	7.5		1.5	26.5	17	8.5	0.75	22.5	
0.12	13	11	5	0.6	10		1.5	31	18	9	0.75	27.5	
0.12	18	11	5	0.75	15		1.8	26.5	19	10	0.75	22.5	
0.15	10	12	6	0.6	7.5		1.8	31	18	9	0.75	27.5	
0.15	13	11	5	0.6	10		2.2	26	20	11	0.75	22.5	
0.15	18	11	5	0.75	15		2.2	31	18	9	0.75	27.5	
0.18	10	12	6	0.6	7.5		2.5	26.5	21.5	12	0.75	22.5	
0.18	13	12	6	0.6	10		2.5	31	18	9	0.75	27.5	
0.18	18	11	5	0.75	15		2.7	26.5	21.5	12	0.75	22.5	
0.18	10	12	6	0.6	7.5		2.7	31	18	9	0.75	27.5	
0.18	13	12	6	0.6	10		3.3	32	20	11	0.75	27.5	
0.22	13	12	6	0.6	10		3.9	31	22	13	0.75	27.5	
0.22	18	11	5	0.75	15		4.7	31.5	25.5	16	0.75	27.5	
0.27	18	12	6	0.75	15		5.6	31.5	25.5	16	0.75	27.5	
0.27	26	12	6	0.75	22.5		6.8	31	33	18	0.75	27.5	
0.33	18	12	6	0.75	15		8.2	31	33	18	0.75	27.5	
0.33	26	12	6	0.75	22.5		10	31	33	18	0.75	27.5	
0.39	18	13.5	7.5	0.75	15		12	32	37	22	0.75	27.5	
0.39	26	12	6	0.75	22.5		15	32	37	22	0.75	27.5	
0.47	18	13.5	7.5	0.75	15								

Dimensions(mm)

Ur: 400V.dc/450V.dc(220V.ac)							Ur: 400V.dc/450V.dc(220V.ac)						
Cr(μF)	W	H	T	d	P	Part number	Cr(μF)	W	H	T	d	P	Part number
0.010	10	9	4	0.6	7.5		0.22	26	12	6	0.75	22.5	
0.012	10	9	4	0.6	7.5		0.27	18	13.5	7.5	0.75	15	
0.015	10	9	4	0.6	7.5		0.27	26	15	6	0.75	22.5	
0.015	13	9	4	0.6	10		0.33	18	14.5	8.5	0.75	15	
0.018	10	9	4	0.6	7.5		0.33	26	15	6	0.75	22.5	
0.018	13	9	4	0.6	10		0.39	18	16	10	0.75	15	
0.022	10	9	4	0.6	7.5		0.39	26.5	16.5	7.5	0.75	22.5	
0.022	13	9	4	0.6	10		0.47	18	16	10	0.75	15	
0.027	10	9	4	0.6	7.5		0.47	26.5	16.5	7.5	0.75	22.5	
0.027	13	9	4	0.6	10		0.56	18	19	11	0.75	15	
0.033	10	11	5	0.6	7.5		0.56	26.5	17	8.5	0.75	22.5	
0.033	13	9	4	0.6	10		0.56	31	18	9	0.75	27.5	
0.039	10	11	5	0.6	7.5		0.68	18	19	11	0.75	15	
0.039	13	9	4	0.6	10		0.68	26.5	17	8.5	0.75	22.5	
0.047	10	11	5	0.6	7.5		0.68	31	18	9	0.75	27.5	
0.047	13	11	5	0.6	10		0.82	26.5	19	10	0.75	27.5	
0.056	10	12	6	0.6	7.5		0.82	31	18	9	0.75	27.5	
0.056	13	11	5	0.6	10		1.0	26	20	11	0.75	22.5	
0.068	10	12	6	0.6	7.5		1.0	31	18	9	0.75	27.5	
0.068	13	11	5	0.6	10		1.2	26.5	21.5	12	0.75	22.5	
0.068	18	11	5	0.75	15		1.2	32	20	11	0.75	27.5	
0.082	13	12	6	0.6	10		1.5	26.5	21.5	12	0.75	22.5	
0.082	18	11	5	0.75	15		1.5	32	20	11	0.75	27.5	
0.10	13	12	6	0.6	10		1.8	31	22	13	0.75	27.5	
0.10	18	11	5	0.75	15		2.2	31.5	25	14	0.75	27.5	
0.12	18	11	5	0.75	15		2.7	31.5	25.5	16	0.75	27.5	
0.15	18	12	6	0.75	15		3.3	31	33	18	0.75	27.5	
0.18	18	12	6	0.75	15		3.9	31	33	18	0.75	27.5	
0.18	26	12	6	0.75	22.5		4.7	32	37	22	0.75	27.5	
0.22	18	13.5	7.5	0.75	15		5.6	32	37	22	0.75	27.5	

Dimensions(mm)

U _R : 630V.dc(250V.ac)							U _R : 630V.dc(250V.ac)						
Cr(μF)	W	H	T	d	P	Part number	Cr(μF)	W	H	T	d	P	Part number
0.0010	10	9	4	0.6	7.5		0.027	13	11	5	0.6	10	
0.0010	13	9	4	0.6	10		0.027	18	11	5	0.75	15	
0.0012	10	9	4	0.6	7.5		0.033	10	12	6	0.6	7.5	
0.0012	13	9	4	0.6	10		0.033	13	11	5	0.6	10	
0.0015	10	9	4	0.6	7.5		0.033	18	11	5	0.75	15	
0.0015	13	9	4	0.6	10		0.039	13	12	6	0.6	10	
0.0018	10	9	4	0.6	7.5		0.039	18	11	5	0.75	15	
0.0018	13	9	4	0.6	10		0.047	13	12	6	0.6	10	
0.0022	10	9	4	0.6	7.5		0.047	18	11	5	0.75	15	
0.0022	13	9	4	0.6	10		0.056	18	11	5	0.75	15	
0.0027	10	9	4	0.6	7.5		0.068	18	12	6	0.75	15	
0.0027	13	9	4	0.6	10		0.082	18	12	6	0.75	15	
0.0033	10	9	4	0.6	7.5		0.082	26	12	6	0.75	22.5	
0.0033	13	9	4	0.6	10		0.10	18	13.5	7.5	0.75	15	
0.0039	10	9	4	0.6	7.5		0.10	26	12	6	0.75	22.5	
0.0039	13	9	4	0.6	10		0.12	18	13.5	7.5	0.75	15	
0.0047	10	9	4	0.6	7.5		0.12	26	12	6	0.75	22.5	
0.0047	13	9	4	0.6	10		0.15	18	13.5	7.5	0.75	15	
0.0056	10	9	4	0.6	7.5		0.15	26	15	6	0.75	22.5	
0.0056	13	9	4	0.6	10		0.18	18	14.5	8.5	0.75	15	
0.0068	10	9	4	0.6	7.5		0.18	26	15	6	0.75	22.5	
0.0068	13	9	4	0.6	10		0.22	18	16	10	0.75	15	
0.0082	10	9	4	0.6	7.5		0.22	26.5	16.5	7.5	0.75	22.5	
0.0082	13	9	4	0.6	10		0.27	18	19	11	0.75	15	
0.010	10	9	4	0.6	7.5		0.27	26.5	17	8.5	0.75	22.5	
0.010	13	9	4	0.6	10		0.33	18	19	11	0.75	15	
0.012	10	9	4	0.6	7.5		0.33	26.5	17	8.5	0.75	22.5	
0.012	13	9	4	0.6	10		0.39	26.5	19	10	0.75	22.5	
0.015	10	11	5	0.6	7.5		0.39	31	18	9	0.75	27.5	
0.015	13	9	4	0.6	10		0.47	26.5	19	10	0.75	22.5	
0.018	10	11	5	0.6	7.5		0.47	31	18	9	0.75	27.5	
0.018	13	9	4	0.6	10		0.56	26	20	11	0.75	22.5	
0.022	10	11	5	0.6	7.5		0.56	32	20	11	0.75	27.5	
0.022	13	11	5	0.6	10		0.68	26.5	21.5	12	0.75	22.5	
0.027	10	12	6	0.6	7.5		0.68	32	20	11	0.75	27.5	

Film Capacitors	CB1*
Metallized Polypropylene Film Capacitor	CBB21-B(BOX)

Dimensions(mm)

UR: 630V.dc(250V.ac)							UR: 630V.dc(250V.ac)						
CR(μF)	W	H	T	d	P	Part number	CR(μF)	W	H	T	d	P	Part number
0.82	32	20	11	0.75	27.5		1.8	31	33	18	0.75	27.5	
1.0	31	22	13	0.75	27.5		2.2	31	33	18	0.75	27.5	
1.2	31.5	25	14	0.75	27.5		2.7	32	37	22	0.75	27.5	
1.5	31.5	25.5	16	0.75	27.5		3.3	32	37	22	0.75	27.5	
UR: 1000V.dc(400V.ac)							UR: 1000V.dc(400V.ac)						
0.0010	13	9	4	0.6	10		0.012	18	11	5	0.75	15	
0.0012	13	9	4	0.6	10		0.015	18	12	6	0.75	15	
0.0015	13	9	4	0.6	10		0.018	18	12	6	0.75	15	
0.0018	13	9	4	0.6	10		0.018	26	12	6	0.75	22.5	
0.0022	13	9	4	0.6	10		0.022	18	13.5	7.5	0.75	15	
0.0022	18	11	5	0.75	15		0.022	26	15	6	0.75	22.5	
0.0027	13	9	4	0.6	10		0.027	18	13.5	7.5	0.75	15	
0.0027	18	11	5	0.75	15		0.027	26	15	6	0.75	22.5	
0.0033	13	9	4	0.6	10		0.033	18	14.5	8.5	0.75	15	
0.0039	18	11	5	0.75	15		0.033	26	15	6	0.75	22.5	
0.0047	13	11	5	0.6	10		0.039	18	16	10	0.75	15	
0.0047	18	11	5	0.75	15		0.047	26.5	16.5	7.5	0.75	22.5	
0.0056	13	11	5	0.6	10		0.056	18	19	11	0.75	15	
0.0056	18	11	5	0.75	15		0.056	26.5	16.5	7.5	0.75	22.5	
0.0068	13	11	5	0.6	10		0.068	18	19	11	0.75	15	
0.0068	18	11	5	0.75	15		0.068	26.5	17	8.5	0.75	22.5	
0.0082	13	12	6	0.6	10		0.082	26.5	17	8.5	0.75	22.5	
0.0082	18	11	5	0.75	15		0.10	26.5	19	10	0.75	22.5	
0.010	13	12	6	0.6	10		0.12	26.5	21.5	12	0.75	22.5	
0.010	18	11	5	0.75	15		0.15	26.5	21.5	12	0.75	22.5	