

# 金属化聚丙烯膜电容器(浸渍型) Metallized polypropylene film capacitor(dipped)

## ■ 外形图 Outline Drawing

	Forming Lead Shapes			
	I	II	III	IV
	P > F		P < F	
	0mm < P-F < 3mm	3mm < P-F < 8mm	3mm < F-P < 5mm	0mm < F-P < 3mm
	F ± 0.8mm; A < 5.0mm; B=4.5 ± 0.5mm			

## ■ 特点

- 金属化聚丙烯膜
- 高频损耗小
- 内部温升小
- 阻燃环氧粉末包封 (UL94/V-0)

## ■ 主要用途

- 广泛应用于高频、直流、交流和脉冲电路中
- 适用于大屏幕显视器的S校正电路
- 适用于各种高频、大电流场合

## ■ Features

- Metallized polypropylene film
- Low loss at high frequency
- Small inherent temperature rise
- Flame retardant epoxy resin powder coating (UL94/V-0)

## ■ Typical application

- Widely used in high frequency, DC, AC and pulse circuits
- Suitable for S-correction circuits of large screen monitor
- Suitable for the situation where applies high frequency and high current pulse

## ■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 10190(IEC 60384-16)				
气候类别 Climatic Category	40/105/21				
额定温度 Rated Temperature	85℃				
工作温度 Operating Temperature Range	-40℃ ~105℃ (+85℃ to +105℃: decreasing factor 1.25% per °C for U <sub>R</sub> )				
额定电压 Rated Voltage	100V, 250V, 400V, 630V, 1 000V, 1 250V				
电容量范围 Capacitance Range	0.0010μF ~ 3.3μF				
电容量偏差 Capacitance Tolerance	± 5%(J), ± 10%(K), ± 20%(M)				
耐电压 Voltage Proof	1.6U <sub>R</sub> ( 5s )				
损耗角正切 Dissipation Factor	≤ 10 × 10 <sup>-4</sup> (1kHz, 20℃ )				
绝缘电阻 Insulation Resistance	R ≥ 100 000MΩ, C <sub>N</sub> ≤ 0.33μF RC <sub>N</sub> ≥ 30 000s, C <sub>N</sub> > 0.33μF (20℃ ,100V, 1min)				
最大脉冲爬升速率 Maximum Pulse Rise Time(dV/dt): 若实际工作电压 U 比额定电压 U <sub>R</sub> 低, 电容器可工作在更高的 dV/dt 场合, 这样 dv/dt 允许值应为右表值乘以 U <sub>R</sub> /U。 If the working voltage(U) is lower than the rated voltage(U <sub>R</sub> ), the capacitor can be worked at a higher dV/dt. In this case, the maximum allowed dV/dt is obtain by multiplying the right value with U <sub>R</sub> /U.	Pattern II				
	U <sub>R</sub> (V)	dV/dt (V/μs)			
		P=7.5	P=10.0	P=15.0	P=22.5
	100/250	660	560	310	130
	400	900	780	600	300
630	1 500	1 200	900	400	
1 000/1 250	2 500	2 200	--	--	



**C31**  
CBB21 series

**产品编码说明 Part number system**

■ 18位产品代码如下：

**The 18 digits part number is formed as follow:**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	3	1															

第1~3位	型号代码 C31= CBB21	Digit 1 to 3	Series code C31= CBB21
第4~5位	直流额定电压 2A=100V 2E=250V 2G=400V 2J=630V 3A=1 000V 3B=1 250V	Digit 4 to 5	D.C. rated voltage 2A=100V 2E=250V 2G=400V 2J=630V 3A=1 000V 3B=1 250V
第6~8位	标称容量 举例：103=10 × 10 <sup>3</sup> pF=0.01μF	Digit 6 to 8	Rated capacitance value For example: 103=10 × 10 <sup>3</sup> pF=0.01μF
第9位	容量偏差 J= ± 5%,K= ± 10%,M= ± 20%	Digit 9	Capacitance tolerance J= ± 5%,K= ± 10%,M= ± 20%
第10位	引线脚距P 3=7.5mm 4=10.0mm 5=12.5mm 6=15.0mm 8=20.0mm 9=22.5mm A=25.0mm C=30.0mm	Digit 10	Pitch 3=7.5mm 4=10.0mm 5=12.5mm 6=15.0mm 8=20.0mm 9=22.5mm A=25.0mm C=30.0mm
第11位	内部特征码 S=II 型	Digit 11	Internal use S= Pattern II
第12~15位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code
第16~18位	内部特征码	Digit 16 to 18	Internal use

■ **Table 1 引线加工和包装代码 lead form and packaging code**

第 12 位 Digit 12		第 13 位 Digit 13		第 14 位 Digit 14		第 15 位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
A	弹带包装 ammo-pack	3	F=7.5mm	1	表示弯脚 kinked	A	产品在连续的两个载带孔之间 each cap. between two consecutive holes P3=12.7mm,H=20.0mm (For pitch=7.5mm)
		4	F=10.0mm			E	P3=25.4mm;H=20.0mm (For pitch=10.0/15.0mm)
		6	F=15.0mm				(Detail parameter refer to pag 18)
F	引线成型 lead kinked	4	F=10.0mm	0	B=4.5mm (the length of B)	0	B 的长度偏差 ± 0.5mm B Length tolerance ± 0.5mm
		6	F=15.0mm				
		7	F=17.5mm				
		8	F=20.0mm				
		9	F=22.5mm				
Y	直脚 straight lead “Y” in the figure above	代码 Code	说明 explanation			0	引线长度偏差 ± 0.5mm Length tolerance ± 0.5mm
		45	引线长度 4.5mm lead length 4.5mm				

第 12-15 位代码为 “C000” 表示标准的引线长度 ( 20mm ~ 30mm )  
Digit 12-15 code “C000” means standard lead length ( 20mm ~ 30mm )

■ 外形尺寸 Dimensions ( mm )  
Pattern II ( Reduced sizes )

100Vdc(63Vac)/250Vdc(160Vac) <sup>#</sup>						
C <sub>N</sub> (μF)	W max	H max	T max	P	d	Part number
0.010	9.8	7.7	4.0	7.5	0.6	C312A103-3S****++
0.011	9.8	7.8	4.2	7.5	0.6	C312A113-3S****++
0.012	9.8	7.9	4.3	7.5	0.6	C312A123-3S****++
0.013	9.8	8.0	4.4	7.5	0.6	C312A133-3S****++
0.015	9.8	7.8	4.2	7.5	0.6	C312A153-3S****++
0.016	9.8	7.9	4.3	7.5	0.6	C312A163-3S****++
0.018	9.8	8.1	4.4	7.5	0.6	C312A183-3S****++
0.020	9.8	8.2	4.6	7.5	0.6	C312A203-3S****++
0.022	9.8	8.4	4.8	7.5	0.6	C312A223-3S****++
0.024	9.8	8.6	4.9	7.5	0.6	C312A243-3S****++
0.027	9.8	7.6	4.0	7.5	0.6	C312A273-3S****++
0.030	9.8	7.7	4.1	7.5	0.6	C312A303-3S****++
0.033	9.8	7.9	4.2	7.5	0.6	C312A333-3S****++
0.036	9.8	8.0	4.4	7.5	0.6	C312A363-3S****++
0.039	9.8	8.1	4.5	7.5	0.6	C312A393-3S****++
0.043	9.8	8.3	4.7	7.5	0.6	C312A433-3S****++
0.047	9.8	8.5	4.8	7.5	0.6	C312A473-3S****++
0.051	12.3	8.0	4.3	10.0	0.6	C312A513-4S****++
0.056	12.3	8.1	4.5	10.0	0.6	C312A563-4S****++
0.062	12.3	8.3	4.6	10.0	0.6	C312A623-4S****++
0.068	12.3	8.5	4.8	10.0	0.6	C312A683-4S****++
0.075	12.3	8.6	5.0	10.0	0.6	C312A753-4S****++
0.082	12.3	8.8	5.2	10.0	0.6	C312A823-4S****++
0.091	12.3	8.1	4.5	10.0	0.6	C312A913-4S****++
0.10	12.3	8.3	4.7	10.0	0.6	C312A104-4S****++
0.11	12.3	8.5	4.8	10.0	0.6	C312A114-4S****++
0.12	12.3	8.6	5.0	10.0	0.6	C312A124-4S****++
0.13	12.3	8.6	4.9	10.0	0.6	C312A134-4S****++
0.15	12.3	8.9	5.2	10.0	0.6	C312A154-4S****++
0.16	12.3	9.0	5.4	10.0	0.6	C312A164-4S****++
0.18	12.3	9.3	5.6	10.0	0.6	C312A184-4S****++
0.20	12.3	9.5	5.9	10.0	0.6	C312A204-4S****++
0.22	12.3	9.8	6.1	10.0	0.6	C312A224-4S****++
0.24	12.3	10.0	6.4	10.0	0.6	C312A244-4S****++
0.27	17.5	10.5	5.3	15.0	0.6	C312A274-6S****++
0.30	17.5	10.8	5.5	15.0	0.6	C312A304-6S****++
0.33	17.5	11.0	5.8	15.0	0.6	C312A334-6S****++
0.36	17.5	11.2	6.0	15.0	0.6	C312A364-6S****++
0.39	17.5	11.4	6.2	15.0	0.6	C312A394-6S****++
0.43	17.5	11.6	6.4	15.0	0.6	C312A434-6S****++
0.47	17.5	11.9	6.6	15.0	0.6	C312A474-6S****++
0.51	17.5	12.1	6.9	15.0	0.6	C312A514-6S****++
0.56	17.5	12.4	7.2	15.0	0.6	C312A564-6S****++
0.62	17.5	12.7	7.5	15.0	0.8	C312A624-6S****++
0.68	17.5	13.5	7.8	15.0	0.8	C312A684-6S****++
0.75	17.5	13.9	8.2	15.0	0.8	C312A754-6S****++
0.82	17.5	14.2	8.5	15.0	0.8	C312A824-6S****++
0.91	17.5	14.9	8.9	15.0	0.8	C312A914-6S****++
1.0	17.5	15.0	9.3	15.0	0.8	C312A105-6S****++
1.1	17.5	15.5	9.7	15.0	0.8	C312A115-6S****++
1.2	25.2	14.8	7.5	22.5	0.8	C312A125-9S****++
1.3	25.2	15.1	7.8	22.5	0.8	C312A135-9S****++
1.5	25.2	15.6	8.3	22.5	0.8	C312A155-9S****++
1.6	25.2	15.9	8.6	22.5	0.8	C312A165-9S****++
1.8	25.2	16.4	9.1	22.5	0.8	C312A185-9S****++
2.0	25.2	16.9	10.1	22.5	0.8	C312A205-9S****++
2.2	25.2	18.3	9.9	22.5	0.8	C312A225-9S****++
2.4	25.2	18.7	10.4	22.5	0.8	C312A245-9S****++
2.7	25.2	19.3	10.9	22.5	0.8	C312A275-9S****++
3.0	25.2	19.9	11.6	22.5	0.8	C312A305-9S****++
3.3	25.2	20.5	12.1	22.5	0.8	C312A335-9S****++

400Vdc(200Vac)						
C <sub>N</sub> (μF)	W max	H max	T max	P	d	Part number
0.010	9.8	7.8	4.1	7.5	0.6	C312G103-3S****++
0.011	9.8	7.9	4.2	7.5	0.6	C312G113-3S****++
0.012	9.8	8.0	4.4	7.5	0.6	C312G123-3S****++
0.013	9.8	8.1	4.5	7.5	0.6	C312G133-3S****++
0.015	9.8	8.4	4.7	7.5	0.6	C312G153-3S****++
0.016	9.8	8.5	4.8	7.5	0.6	C312G163-3S****++
0.018	9.8	8.7	5.0	7.5	0.6	C312G183-3S****++
0.020	9.8	8.9	5.3	7.5	0.6	C312G203-3S****++
0.022	9.8	9.1	5.5	7.5	0.6	C312G223-3S****++
0.024	12.3	8.0	4.3	10.0	0.6	C312G243-4S****++
0.027	12.3	8.1	4.5	10.0	0.6	C312G273-4S****++
0.030	12.3	8.3	4.7	10.0	0.6	C312G303-4S****++
0.033	12.3	8.5	4.8	10.0	0.6	C312G333-4S****++
0.036	12.3	8.6	5.0	10.0	0.6	C312G363-4S****++
0.039	12.3	8.7	5.0	10.0	0.6	C312G393-4S****++
0.043	12.3	8.8	5.2	10.0	0.6	C312G433-4S****++
0.047	12.3	9.0	5.4	10.0	0.6	C312G473-4S****++
0.051	12.3	9.2	5.6	10.0	0.6	C312G513-4S****++
0.056	12.3	9.4	5.8	10.0	0.6	C312G563-4S****++
0.062	12.3	8.9	5.2	10.0	0.6	C312G623-4S****++
0.068	12.3	9.1	5.4	10.0	0.6	C312G683-4S****++
0.075	12.3	9.3	5.7	10.0	0.6	C312G753-4S****++
0.082	12.3	9.5	5.9	10.0	0.6	C312G823-4S****++
0.091	12.3	9.8	6.1	10.0	0.6	C312G913-4S****++
0.10	12.3	10.0	6.4	10.0	0.6	C312G104-4S****++
0.11	12.3	10.3	6.6	10.0	0.6	C312G114-4S****++
0.12	17.5	10.7	5.5	15.0	0.6	C312G124-6S****++
0.13	17.5	10.9	5.7	15.0	0.6	C312G134-6S****++
0.15	17.5	11.2	6.0	15.0	0.6	C312G154-6S****++
0.16	17.5	11.3	6.1	15.0	0.6	C312G164-6S****++
0.18	17.5	11.6	6.4	15.0	0.6	C312G184-6S****++
0.20	17.5	11.9	6.7	15.0	0.6	C312G204-6S****++
0.22	17.5	12.2	7.0	15.0	0.6	C312G224-6S****++
0.24	17.5	12.5	7.3	15.0	0.6	C312G244-6S****++
0.27	17.5	12.9	7.6	15.0	0.8	C312G274-6S****++
0.30	17.5	13.7	8.0	15.0	0.8	C312G304-6S****++
0.33	17.5	14.1	8.4	15.0	0.8	C312G334-6S****++
0.36	17.5	14.4	8.7	15.0	0.8	C312G364-6S****++
0.39	17.5	14.7	9.0	15.0	0.8	C312G394-6S****++
0.43	17.5	15.1	9.4	15.0	0.8	C312G434-6S****++
0.47	17.5	15.5	9.8	15.0	0.8	C312G474-6S****++
0.51	25.2	14.8	7.6	22.5	0.8	C312G514-9S****++
0.56	25.2	15.2	7.9	22.5	0.8	C312G564-9S****++
0.62	25.2	15.6	8.3	22.5	0.8	C312G624-9S****++
0.68	25.2	15.9	9.1	22.5	0.8	C312G684-9S****++
0.75	25.2	16.3	9.6	22.5	0.8	C312G754-9S****++
0.82	25.2	16.7	10.0	22.5	0.8	C312G824-9S****++
0.91	25.2	17.2	10.5	22.5	0.8	C312G914-9S****++
1.0	25.2	17.7	10.9	22.5	0.8	C312G105-9S****++

备注: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%  
 2. “\*\*\*\*”表示引线加工和包装代码(见表1)。“\*\*\*\*”=lead form and packing code (refer to table 1)  
 3. “#”当额定电压为250Vdc时,第4~5位是2E。“#”when the rated voltage is 250Vdc,the digit 4~5 is 2E.



**C31**  
CBB21 series

■ 外形尺寸 Dimensions ( mm )  
Pattern II ( Reduced sizes )

630Vdc(220Vac) <sup>®</sup>							630Vdc(220Vac) <sup>®</sup>							1 000/1 250Vdc <sup>#</sup> (400Vac)						
C <sub>N</sub> (μF)	W max	H max	T max	P	d	Part number	C <sub>N</sub> (μF)	W max	H max	T max	P	d	Part number	C <sub>N</sub> (μF)	W max	H max	T max	P	d	Part number
0.0010	10.0	7.9	4.3	7.5	0.6	C312J102-3S****+	0.027	12.3	9.4	5.7	10.0	0.6	C312J273-4S****+	0.0010	10.0	7.9	4.3	7.5	0.6	C313A102-3S****+
0.0011	10.0	8.1	4.4	7.5	0.6	C312J112-3S****+	0.030	12.3	9.6	6.0	10.0	0.6	C312J303-4S****+	0.0011	10.0	8.1	4.4	7.5	0.6	C313A112-3S****+
0.0012	10.0	8.2	4.5	7.5	0.6	C312J122-3S****+	0.033	12.3	9.9	6.2	10.0	0.6	C312J333-4S****+	0.0012	10.0	8.2	4.5	7.5	0.6	C313A122-3S****+
0.0013	10.0	8.3	4.7	7.5	0.6	C312J132-3S****+	0.036	12.3	10.1	6.4	10.0	0.6	C312J363-4S****+	0.0013	10.0	8.3	4.7	7.5	0.6	C313A132-3S****+
0.0015	10.0	8.1	4.4	7.5	0.6	C312J152-3S****+	0.039	12.3	10.3	6.7	10.0	0.6	C312J393-4S****+	0.0015	10.0	8.1	4.4	7.5	0.6	C313A152-3S****+
0.0016	10.0	8.2	4.5	7.5	0.6	C312J162-3S****+	0.043	17.5	10.7	5.4	15.0	0.6	C312J433-6S****+	0.0016	10.0	8.2	4.5	7.5	0.6	C313A162-3S****+
0.0018	10.0	7.8	4.2	7.5	0.6	C312J182-3S****+	0.047	17.5	10.8	5.6	15.0	0.6	C312J473-6S****+	0.0018	10.0	7.8	4.2	7.5	0.6	C313A182-3S****+
0.0020	10.0	8.0	4.3	7.5	0.6	C312J202-3S****+	0.051	17.5	11.0	5.8	15.0	0.6	C312J513-6S****+	0.0020	10.0	8.0	4.3	7.5	0.6	C313A202-3S****+
0.0022	10.0	8.1	4.5	7.5	0.6	C312J222-3S****+	0.056	17.5	11.2	6.0	15.0	0.6	C312J563-6S****+	0.0022	10.0	8.1	4.5	7.5	0.6	C313A222-3S****+
0.0024	9.8	8.0	4.3	7.5	0.6	C312J242-3S****+	0.062	17.5	11.4	6.2	15.0	0.6	C312J623-6S****+	0.0024	10.0	7.7	4.0	7.5	0.6	C313A242-3S****+
0.0027	9.8	8.1	4.5	7.5	0.6	C312J272-3S****+	0.068	17.5	11.7	6.5	15.0	0.6	C312J683-6S****+	0.0027	10.0	7.8	4.2	7.5	0.6	C313A272-3S****+
0.0030	9.8	8.3	4.7	7.5	0.6	C312J302-3S****+	0.075	17.5	11.9	6.7	15.0	0.6	C312J753-6S****+	0.0030	10.0	8.0	4.4	7.5	0.6	C313A302-3S****+
0.0033	9.8	8.5	4.8	7.5	0.6	C312J332-3S****+	0.082	17.5	12.2	7.0	15.0	0.6	C312J823-6S****+	0.0033	10.0	8.2	4.5	7.5	0.6	C313A332-3S****+
0.0036	9.8	8.0	4.4	7.5	0.6	C312J362-3S****+	0.091	17.5	12.5	7.3	15.0	0.6	C312J913-6S****+	0.0036	10.0	8.3	4.7	7.5	0.6	C313A362-3S****+
0.0039	9.8	8.2	4.5	7.5	0.6	C312J392-3S****+	0.10	17.5	12.8	7.6	15.0	0.8	C312J104-6S****+	0.0039	10.0	8.4	4.8	7.5	0.6	C313A392-3S****+
0.0043	9.8	8.3	4.7	7.5	0.6	C312J432-3S****+	0.11	17.5	13.6	7.9	15.0	0.8	C312J114-6S****+	0.0043	10.0	8.2	4.5	7.5	0.6	C313A432-3S****+
0.0047	9.8	8.5	4.9	7.5	0.6	C312J472-3S****+	0.12	17.5	13.9	8.2	15.0	0.8	C312J124-6S****+	0.0047	10.0	8.3	4.7	7.5	0.6	C313A472-3S****+
0.0051	9.8	8.6	5.0	7.5	0.6	C312J512-3S****+	0.13	17.5	14.2	8.5	15.0	0.8	C312J134-6S****+	0.0051	10.0	8.5	4.8	7.5	0.6	C313A512-3S****+
0.0056	9.8	8.8	5.2	7.5	0.6	C312J562-3S****+	0.15	17.5	14.7	9.0	15.0	0.8	C312J154-6S****+	0.0056	10.0	8.7	5.0	7.5	0.6	C313A562-3S****+
0.0062	9.8	9.0	5.4	7.5	0.6	C312J622-3S****+	0.16	17.5	15.0	9.3	15.0	0.8	C312J164-6S****+	0.0062	10.0	8.7	5.0	7.5	0.6	C313A622-3S****+
0.0068	12.3	8.0	4.4	10.0	0.6	C312J682-4S****+	0.18	17.5	15.5	9.8	15.0	0.8	C312J184-6S****+	0.0068	12.0	8.9	5.2	10.0	0.6	C313A682-4S****+
0.0075	12.3	8.2	4.5	10.0	0.6	C312J752-4S****+	0.20	17.5	16.0	10.3	15.0	0.8	C312J204-6S****+	0.0075	12.0	9.1	5.4	10.0	0.6	C313A752-4S****+
0.0082	12.3	8.3	4.7	10.0	0.6	C312J822-4S****+	0.22	25.2	15.2	7.9	22.5	0.8	C312J224-9S****+	0.0082	12.0	9.3	5.6	10.0	0.6	C313A822-4S****+
0.0091	12.3	8.5	4.9	10.0	0.6	C312J912-4S****+	0.24	25.2	15.5	8.2	22.5	0.8	C312J244-9S****+	0.0091	12.0	9.5	5.9	10.0	0.6	C313A912-4S****+
0.010	12.3	7.8	4.1	10.0	0.6	C312J103-4S****+	0.27	25.2	15.9	9.2	22.5	0.8	C312J274-9S****+	0.010	12.0	9.9	6.3	10.0	0.6	C313A103-4S****+
0.011	12.3	7.9	4.2	10.0	0.6	C312J113-4S****+	0.30	25.2	16.4	9.6	22.5	0.8	C312J304-9S****+							
0.012	12.3	8.0	4.4	10.0	0.6	C312J123-4S****+	0.33	25.2	16.8	10.0	22.5	0.8	C312J334-9S****+							
0.013	12.3	8.1	4.5	10.0	0.6	C312J133-4S****+	0.36	25.2	17.2	10.4	22.5	0.8	C312J364-9S****+							
0.015	12.3	8.3	4.7	10.0	0.6	C312J153-4S****+	0.39	25.2	17.6	10.8	22.5	0.8	C312J394-9S****+							
0.016	12.3	8.5	4.8	10.0	0.6	C312J163-4S****+	0.43	25.2	18.1	11.3	22.5	0.8	C312J434-9S****+							
0.018	12.3	8.6	4.9	10.0	0.6	C312J183-4S****+	0.47	25.2	18.6	11.8	22.5	0.8	C312J474-9S****+							
0.020	12.3	8.8	5.1	10.0	0.6	C312J203-4S****+	0.51	25.2	19.0	12.2	22.5	0.8	C312J514-9S****+							
0.022	12.3	8.9	5.3	10.0	0.6	C312J223-4S****+	0.56	25.2	19.6	12.8	22.5	0.8	C312J564-9S****+							
0.024	12.3	9.1	5.5	10.0	0.6	C312J243-4S****+														

备注: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%  
 2. “\*\*\*\*”表示引线加工和包装代码(见表1)。“\*\*\*\*”=lead form and packing code (refer to table 1)  
 3. “#”当额定电压为1250Vdc时,第4~5位是3B。“#”when the rated voltage is 1250Vdc,the digit 4~5 is 3B.  
 4. “@”不用作跨线,请参见抗干扰电容器(Pag.109)  
 “@” Not suitable for across-the-line applications. Pls refer to interference Suppression Capacitors (Pag. 109)