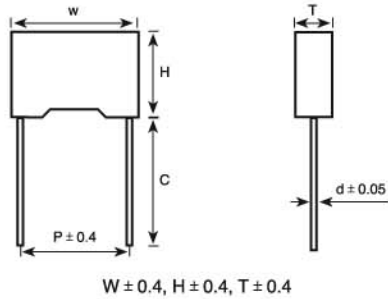




**C23**  
CL23 series

## 塑料外壳金属化聚酯膜电容器 Metallized polyester film capacitor(Box-type)

### ■ 外形图 Outline Drawing



### ■ 特点

- 可靠性高
- 金属化聚酯膜，无感卷绕结构
- 塑料外壳(UL94 V-0)，阻燃环氧填充
- Pattern II is new design and reduced size

### ■ 主要用途

- 旁路，隔直，耦合，退耦
- 脉冲，逻辑，定时，振荡电路
- 低电压场合抗干扰

### ■ 技术要求 Specifications

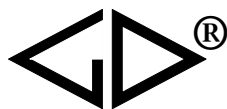
引用标准 Reference Standard	GB/T 7332 (IEC 60384-2)					
气候类别 Climatic Category	55/105/56					
额定温度 Rated Temperature	85℃					
工作温度范围 Operating Temperature Range	-55℃~105℃ (+85℃ to +105℃: decreasing factor 1.25% per ℃ for $V_R$ (dc))					
额定电压 Rated Voltage	63V、100V、160V、250V、400V、630V					
电容量范围 Capacitance Range	0.0033μF~33.0μF					
电容量偏差 Capacitance Tolerance	± 5%(J), ± 10%(K), ± 20%(M)					
耐电压 Voltage Proof	1.6 $U_R$ (5s)					
损耗角正切 Dissipation Factor	测试频率 Frequency	$C_R \leq 0.1\mu F$	$C_R > 0.1\mu F$			
	1kHz	≤ 1.0%	≤ 1.0%			
	10kHz	≤ 1.5%	≤ 1.5%			
	100kHz	≤ 3.0%				
绝缘电阻 Insulation Resistance	$U_R > 100V$	$> 30\,000M\Omega$ , $C_R \leq 0.33\mu F$ $> 10\,000s$ , $C_R > 0.33\mu F$ (20℃, 100V, 1min)				
	$U_R \leq 100V$	$> 15\,000M\Omega$ , $C_R \leq 0.33\mu F$ $> 5\,000s$ , $C_R > 0.33\mu F$ (20℃, 10V, 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 $U_R$ 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 $U_R/U$ 。 If the working voltage (U) is lower than the rated voltage ( $U_R$ ), 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 $U_R/U$ .	$U_R$ (V)	dV/dt(V/μs)				
		P=7.5	P=10.0	P=15.0	P=22.5	P=27.5
	63	7.5	6	3	2	1
	100	15	9	5	3	2
	250	30	20	12	8	5
	400	40	30	20	10	7
630	50	40	25	12	-	

### ■ Features

- High reliability
- Metallized polyester film, non-inductive wound construction
- Plastic case(UL94 V-0), Epoxy resin sealing

### ■ Typical Applications

- By-passing, blocking, coupling, decoupling,
- Pulse, logic, timing, oscillator circuits.
- Interference suppression in low voltage application (i.e. automotive)



## 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:

### C23 Pattern II (Reduced size)

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

C	2	3							S								
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第 1~3 位	薄膜电容器系列代码 C23= CL23	Digit 1 to 3	Series code of film capacitor C23= CL23
第 4~5 位	直流额定电压 1J=63V 2A=100V 2C=160V 2E=250V 2G=400V 2J=630V	Digit 4 to 5	DC rated voltage 1J=63V 2A=100V 2C=160V 2E=250V 2G=400V 2J=630V
第 6~8 位	标称容量 举例: 103=10×10 <sup>3</sup> pF=0.01 μ F	Digit 6 to 8	Rated capacitance value for example: 103=10×10 <sup>3</sup> pF=0.01 μ F
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 6=15.0mm 9=22.5mm B=27.5mm	Digit 10	Lead pitch 3=7.5mm 4=10.0mm 6=15.0mm 9=22.5mm B=27.5mm
第 11 位	内部特征码	Digit 11	Internal use
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	0	表示直脚 straight	1	产品在连续的两个载带孔之间 each cap. among two consecutive holes P3=12.7mm,H=18.5mm (For pitch=7.5mm)
		4	F=10.0mm				
		6	F=15.0mm				
C	直脚 straight lead “C” in the figure above	代码 Code	说明 explanation	0		0	引线长度偏差±0.5mm 或标准长度 Length tolerance ±0.5mm Or standard length
		00	标准的引线长度(18mm~26mm) standard lead length				
		45	引线长度 4.5mm lead length 4.5mm				



**C23**  
CL23 series

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

63Vdc(40Vac)							100Vdc(63Vac)							250Vdc(160Vac)						
容量 (μF)	W	H	T	P	d	产品代码 Part number	容量 (μF)	W	H	T	P	d	产品代码 Part number	容量 (μF)	W	H	T	P	d	产品代码 Part number
0.47	10.5	8.5	3.5	7.5	0.5	C231J474-3S****++	0.22	10.5	8.5	3.5	7.5	0.5	C232A224-3S****++	0.068	10.5	8.5	3.5	7.5	0.5	C232E683-3S****++
0.68	10.5	8.5	3.5	7.5	0.5	C231J684-3S****++	0.33	10.5	9.0	4.0	7.5	0.6	C232A334-3S****++	0.10	10.5	8.5	3.5	7.5	0.5	C232E104-3S****++
1.0	10.5	11.0	5.0	7.5	0.6	C231J105-3S****++	0.47	10.5	9.0	4.0	7.5	0.6	C232A474-3S****++	0.15	10.5	9.0	4.0	7.5	0.6	C232E154-3S****++
1.5	10.5	12.0	6.0	7.5	0.6	C231J155-3S****++	0.68	10.5	11.0	5.0	7.5	0.6	C232A684-3S****++	0.22	10.5	11.0	5.0	7.5	0.6	C232E224-3S****++
1.8	10.5	12.0	6.0	7.5	0.6	C231J185-3S****++	1.0	10.5	12.0	6.0	7.5	0.6	C232A105-3S****++	0.27	10.5	12.0	6.0	7.5	0.6	C232E274-3S****++
0.10	13.0	9.0	4.0	10.0	0.6	C231J104-4S****++	0.10	13.0	9.0	4.0	10.0	0.6	C232A104-4S****++	0.33	10.5	12.0	6.0	7.5	0.6	C232E334-3S****++
0.15	13.0	9.0	4.0	10.0	0.6	C231J154-4S****++	0.15	13.0	9.0	4.0	10.0	0.6	C232A154-4S****++	0.033	13.0	9.0	4.0	10.0	0.6	C232E333-4S****++
0.22	13.0	9.0	4.0	10.0	0.6	C231J224-4S****++	0.22	13.0	9.0	4.0	10.0	0.6	C232A224-4S****++	0.047	13.0	9.0	4.0	10.0	0.6	C232E473-4S****++
0.33	13.0	9.0	4.0	10.0	0.6	C231J334-4S****++	0.33	13.0	9.0	4.0	10.0	0.6	C232A334-4S****++	0.068	13.0	9.0	4.0	10.0	0.6	C232E683-4S****++
0.47	13.0	9.0	4.0	10.0	0.6	C231J474-4S****++	0.47	13.0	9.0	4.0	10.0	0.6	C232A474-4S****++	0.10	13.0	9.0	4.0	10.0	0.6	C232E104-4S****++
0.68	13.0	9.0	4.0	10.0	0.6	C231J684-4S****++	0.68	13.0	9.0	4.0	10.0	0.6	C232A684-4S****++	0.15	13.0	9.0	4.0	10.0	0.6	C232E154-4S****++
1.0	13.0	9.0	4.0	10.0	0.6	C231J105-4S****++	1.0	13.0	11.0	5.0	10.0	0.6	C232A105-4S****++	0.22	13.0	11.0	5.0	10.0	0.6	C232E224-4S****++
1.5	13.0	11.0	5.0	10.0	0.6	C231J155-4S****++	1.5	13.0	12.0	6.0	10.0	0.6	C232A155-4S****++	0.33	13.0	11.0	5.0	10.0	0.6	C232E334-4S****++
1.8	13.0	12.0	6.0	10.0	0.6	C231J185-4S****++	0.33	17.5	11.0	5.0	15.0	0.8	C232A334-6S****++	0.47	13.0	12.0	6.0	10.0	0.6	C232E474-4S****++
2.2	13.0	12.0	6.0	10.0	0.6	C231J225-4S****++	0.47	17.5	11.0	5.0	15.0	0.8	C232A474-6S****++	0.10	17.5	11.0	5.0	15.0	0.8	C232E104-6S****++
0.68	17.5	11.0	5.0	15.0	0.8	C231J684-6S****++	0.68	17.5	11.0	5.0	15.0	0.8	C232A684-6S****++	0.15	17.5	11.0	5.0	15.0	0.8	C232E154-6S****++
1.0	17.5	11.0	5.0	15.0	0.8	C231J105-6S****++	1.0	17.5	11.0	5.0	15.0	0.8	C232A105-6S****++	0.22	17.5	11.0	5.0	15.0	0.8	C232E224-6S****++
1.5	17.5	11.0	5.0	15.0	0.8	C231J155-6S****++	1.5	17.5	12.0	6.0	15.0	0.8	C232A155-6S****++	0.33	17.5	11.0	5.0	15.0	0.8	C232E334-6S****++
1.8	17.5	11.0	5.0	15.0	0.8	C231J185-6S****++	1.8	17.5	12.0	6.0	15.0	0.8	C232A185-6S****++	0.47	17.5	11.0	5.0	15.0	0.8	C232E474-6S****++
2.2	17.5	11.0	5.0	15.0	0.8	C231J225-6S****++	2.2	17.5	12.0	6.0	15.0	0.8	C232A225-6S****++	0.68	17.5	12.0	6.0	15.0	0.8	C232E684-6S****++
3.3	17.5	12.0	6.0	15.0	0.8	C231J335-6S****++	3.3	17.5	13.5	7.5	15.0	0.8	C232A335-6S****++	1.0	17.5	13.5	7.5	15.0	0.8	C232E105-6S****++
4.7	17.5	13.5	7.5	15.0	0.8	C231J475-6S****++	4.7	17.5	14.5	8.5	15.0	0.8	C232A475-6S****++	1.5	17.5	14.5	8.5	15.0	0.8	C232E155-6S****++
6.8	17.5	14.5	8.5	15.0	0.8	C231J685-6S****++	1.5	26.5	15.0	6.0	22.5	0.8	C232A155-9S****++	0.47	26.5	15.0	6.0	22.5	0.8	C232E474-9S****++
10.0	17.5	16.0	10.0	15.0	0.8	C231J106-6S****++	1.8	26.5	15.0	6.0	22.5	0.8	C232A185-9S****++	0.68	26.5	15.0	6.0	22.5	0.8	C232E684-9S****++
3.3	26.5	16.0	7.0	22.5	0.8	C231J335-9S****++	2.2	26.5	15.0	6.0	22.5	0.8	C232A225-9S****++	1.0	26.5	15.0	6.0	22.5	0.8	C232E105-9S****++
4.7	26.5	16.0	7.0	22.5	0.8	C231J475-9S****++	3.3	26.5	15.0	6.0	22.5	0.8	C232A335-9S****++	1.5	26.5	16.0	7.0	22.5	0.8	C232E155-9S****++
6.8	26.5	16.0	7.0	22.5	0.8	C231J685-9S****++	4.7	26.5	16.0	7.0	22.5	0.8	C232A475-9S****++	1.8	26.5	16.0	7.0	22.5	0.8	C232E185-9S****++
10.0	26.5	17.0	8.5	22.5	0.8	C231J106-9S****++	6.8	26.5	18.5	10.0	22.5	0.8	C232A685-9S****++	2.2	26.5	17.0	8.5	22.5	0.8	C232E225-9S****++
15.0	26.5	20.0	11.0	22.5	0.8	C231J156-9S****++	10.0	26.5	22.0	12.0	22.5	0.8	C232A106-9S****++	3.3	26.5	20.0	11.0	22.5	0.8	C232E335-9S****++
4.7	32.0	18.0	9.0	27.5	0.8	C231J475-BS****++	4.7	32.0	18.0	9.0	27.5	0.8	C232A475-BS****++	1.5	32.0	18.0	9.0	27.5	0.8	C232E155-BS****++
6.8	32.0	18.0	9.0	27.5	0.8	C231J685-BS****++	6.8	32.0	18.0	9.0	27.5	0.8	C232A685-BS****++	1.8	32.0	18.0	9.0	27.5	0.8	C232E185-BS****++
10.0	32.0	18.0	9.0	27.5	0.8	C231J106-BS****++	10.0	32.0	20.0	11.0	27.5	0.8	C232A106-BS****++	2.2	32.0	18.0	9.0	27.5	0.8	C232E225-BS****++
15.0	32.0	18.0	9.0	27.5	0.8	C231J156-BS****++								3.3	32.0	18.0	9.0	27.5	0.8	C232E335-BS****++
22.0	32.0	22.0	13.0	27.5	0.8	C231J226-BS****++								4.7	32.0	20.0	11.0	27.5	0.8	C232E475-BS****++
33.0	32.0	24.5	15.0	27.5	0.8	C231J336-BS****++								6.8	32.0	22.0	13.0	27.5	0.8	C232E685-BS****++

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table 1)。“\*\*\*\*”=lead form and packing code (refer to table 1)

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

400Vdc(200Vac)						
容量 ( $\mu$ F)	W	H	T	P	d	产品代码 Part number
0.022	10.5	8.5	3.5	7.5	0.5	C232G223-3S****+++
0.033	10.5	8.5	3.5	7.5	0.5	C232G333-3S****+++
0.047	10.5	9.0	4.0	7.5	0.6	C232G473-3S****+++
0.068	10.5	11.0	5.0	7.5	0.6	C232G683-3S****+++
0.10	10.5	12.0	6.0	7.5	0.6	C232G104-3S****+++
0.010	13.0	9.0	4.0	10.0	0.6	C232G103-4S****+++
0.015	13.0	9.0	4.0	10.0	0.6	C232G153-4S****+++
0.022	13.0	9.0	4.0	10.0	0.6	C232G223-4S****+++
0.033	13.0	9.0	4.0	10.0	0.6	C232G333-4S****+++
0.047	13.0	9.0	4.0	10.0	0.6	C232G473-4S****+++
0.056	13.0	9.0	4.0	10.0	0.6	C232G563-4S****+++
0.068	13.0	11.0	5.0	10.0	0.6	C232G683-4S****+++
0.10	13.0	11.0	5.0	10.0	0.6	C232G104-4S****+++
0.15	13.0	12.0	6.0	10.0	0.6	C232G154-4S****+++
0.047	17.5	11.0	5.0	15.0	0.8	C232G473-6S****+++
0.068	17.5	11.0	5.0	15.0	0.8	C232G683-6S****+++
0.10	17.5	11.0	5.0	15.0	0.8	C232G104-6S****+++
0.15	17.5	11.0	5.0	15.0	0.8	C232G154-6S****+++
0.22	17.5	12.0	6.0	15.0	0.8	C232G224-6S****+++
0.33	17.5	13.5	7.5	15.0	0.8	C232G334-6S****+++
0.47	17.5	14.5	8.5	15.0	0.8	C232G474-6S****+++
0.68	17.5	16.0	10.0	15.0	0.8	C232G684-6S****+++
0.22	26.5	15.0	6.0	22.5	0.8	C232G224-9S****+++
0.33	26.5	15.0	6.0	22.5	0.8	C232G334-9S****+++
0.47	26.5	15.0	6.0	22.5	0.8	C232G474-9S****+++
0.68	26.5	16.0	7.0	22.5	0.8	C232G684-9S****+++
1.0	26.5	18.5	10.0	22.5	0.8	C232G105-9S****+++
1.5	26.5	22.0	12.0	22.5	0.8	C232G155-9S****+++
0.68	32.0	18.0	9.0	27.5	0.8	C232G684-BS****+++
1.0	32.0	18.0	9.0	27.5	0.8	C232G105-BS****+++
1.5	32.0	20.0	11.0	27.5	0.8	C232G155-BS****+++

630Vdc(220Vac) <sup>®</sup>						
容量 ( $\mu$ F)	W	H	T	P	d	产品代码 Part number
0.0047	10.5	8.5	3.5	7.5	0.5	C232J472-3S****+++
0.0068	10.5	8.5	3.5	7.5	0.5	C232J682-3S****+++
0.010	10.5	8.5	3.5	7.5	0.5	C232J103-3S****+++
0.015	10.5	9.0	4.0	7.5	0.6	C232J153-3S****+++
0.022	10.5	11.0	5.0	7.5	0.6	C232J223-3S****+++
0.033	10.5	12.0	6.0	7.5	0.6	C232J333-3S****+++
0.0047	13.0	9.0	4.0	10.0	0.6	C232J472-4S****+++
0.0068	13.0	9.0	4.0	10.0	0.6	C232J682-4S****+++
0.010	13.0	9.0	4.0	10.0	0.6	C232J103-4S****+++
0.015	13.0	9.0	4.0	10.0	0.6	C232J153-4S****+++
0.022	13.0	9.0	4.0	10.0	0.6	C232J223-4S****+++
0.033	13.0	11.0	5.0	10.0	0.6	C232J333-4S****+++
0.047	13.0	11.0	5.0	10.0	0.6	C232J473-4S****+++
0.068	13.0	12.0	6.0	10.0	0.6	C232J683-4S****+++
0.033	17.5	11.0	5.0	15.0	0.8	C232J333-6S****+++
0.047	17.5	11.0	5.0	15.0	0.8	C232J473-6S****+++
0.068	17.5	11.0	5.0	15.0	0.8	C232J683-6S****+++
0.10	17.5	12.0	6.0	15.0	0.8	C232J104-6S****+++
0.15	17.5	13.5	7.5	15.0	0.8	C232J154-6S****+++
0.22	17.5	16.0	10.0	15.0	0.8	C232J224-6S****+++
0.33	17.5	19.0	11.0	15.0	0.8	C232J334-6S****+++
0.10	26.5	15.0	6.0	22.5	0.8	C232J104-9S****+++
0.15	26.5	15.0	6.0	22.5	0.8	C232J154-9S****+++
0.22	26.5	16.0	7.0	22.5	0.8	C232J224-9S****+++
0.33	26.5	16.0	7.0	22.5	0.8	C232J334-9S****+++
0.47	26.5	17.0	8.5	22.5	0.8	C232J474-9S****+++
0.68	26.5	22.0	12.0	22.5	0.8	C232J684-9S****+++

备注: 1. “-”表示容量偏差。“-”=capacitance tolerance code, M=  $\pm 20\%$ , K=  $\pm 10\%$ , J=  $\pm 5\%$   
 2. “\*\*\*\*”表示引线加工和包装代码(见table 1)。“\*\*\*\*”=lead form and packing code(refer to table 1)  
 3. “@” Not suitable for across-the-line applications. Pls refer to Interference Suppression Capacitors(Pag. 117)