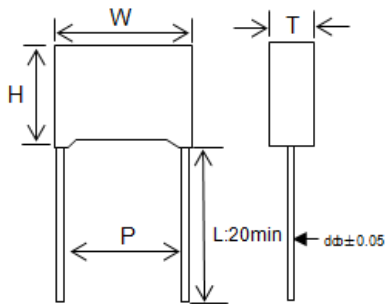


## 塑料外壳金属化聚酯膜电容器 Box-type metallized polyester film capacitor

### ■ 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

### ■ 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

### ■ Features

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

### ■ Typical application

- by-passing, blocking, coupling, decoupling,
- pulse, logic, timing, oscillator circuits.
- interference suppression in low voltage application (i.e. automotive)

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°C					
工作温度范围 Operating temperature	-55°C~105°C (+85°C to +105°C: decreasing factor 1.25% per °C for VR(dc))					
额定电压 Rated Voltage	63V, 100V, 160V, 250V, 400V, 630V,					
电容量范围 Capacitance Range	0.0010μF ~ 47.0μF					
电容量偏差 Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)					
耐电压 Voltage Proof	1.6UR (5s)					
损耗角正切 Dissipation Factor	≤1.0% (20°C,1kHz)					
绝缘电阻 Insulation Resistance	UR≤100V ≥3 750MΩ, CR≤0.33μF ≥1 250s, CR>0.33μF (20°C,10V,1min) UR>100V ≥30 000MΩ, CR≤0.33μF ≥10 000s, CR>0.33μF (20°C,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 UR 低，电容器可工作在更高的 dv/dt 场合。这样 dv/dt 允许值为右表值乘 UR/U。	UR(V)	dv/dt (V/μs)				
		P=7.5	P=10.0	P=15.0	P=22.0	P=27.0
	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	--	

## 产品代码说明 Part number system

### ■ 18 位产品代码说明如下:

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
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

### W 2 3

第 1~3 位: 型号代码

W23=CL21B

第 4~5 位: 直流额定电压

1J= 63V 2A=100V 2C=160V  
2E=250V 2G=400V 2J=630V

第 6~8 位: 标称容量

举例 : 104 =  $10 \times 10^4$  PF = 0.1 $\mu$ f

第 9 位: 容量偏差

J=±5%, K=±10%, M=±20%

第 10 位: 引线脚距

J=7.5mm K=10.0mm M=15.0mm  
P=22.0mm S=27.0mm

第 11 位: 引线线径

5= CP 0.5mm 6= CP 0.6mm  
7= CP 0.7mm 8= CP 0.8mm  
2= CU 0.5mm 3= CU 0.6mm  
4= CU 0.7mm 9= CU 0.8mm

第 12 位: 引线加工和包装代码

L= 直脚 K= 引线成型  
T= 弹带包装

第 13~18 位: 内部特征码

Digit 1 to 3: Series code

W23=CL21B

Digit 4 to 5: DC rated voltage

1J= 63V 2A=100V 2C=160V  
2E=250V 2G=400V 2J=630V

Digit 6 to 8: Rated capacitance

For example: 104 =  $10 \times 10^4$  PF = 0.1 $\mu$ f

Digit 9: Capacitance tolerance

J=±5%, K=±10%, M=±20%

Digit 10: Pitch

J=7.5mm K=10.0mm M=15.0mm  
P=22.0mm S=27.0mm

Digit 11: Lead Wire diameter

5= CP 0.5mm 6= CP 0.6mm  
7= CP 0.7mm 8= CP 0.8mm  
2= CU 0.5mm 3= CU 0.6mm  
4= CU 0.7mm 9= CU 0.8mm

Digit 12: Lead form and packaging code

L= straight lead K= Lead kinked  
T= ammo-pack

Digit 13 to 18: Internal use

## ■ 外形尺寸 Dimensions (mm)

50Vdc (40Vac)						
Cn ( $\mu$ F)	W max	H max	T max	P	d	Part number
0.47	10.5	8.5	3.5	7.5	0.5	W231H474-J5*****
0.68	10.5	8.5	3.5	7.5	0.5	W231H684-J5*****
1.0	10.5	11.0	5.0	7.5	0.6	W231H105-J6*****
1.5	10.5	12.0	6.0	7.5	0.6	W231H155-J6*****
1.8	10.5	12.0	6.0	7.5	0.6	W231H185-J6*****
0.10	13.0	9.0	4.0	10.0	0.6	W231H104-K6*****
0.15	13.0	9.0	4.0	10.0	0.6	W231H154-K6*****
0.22	13.0	9.0	4.0	10.0	0.6	W231H224-K6*****
0.33	13.0	9.0	4.0	10.0	0.6	W231H334-K6*****
0.47	13.0	9.0	4.0	10.0	0.6	W231H474-K6*****
0.68	13.0	9.0	4.0	10.0	0.6	W231H684-K6*****
1.0	13.0	9.0	4.0	10.0	0.6	W231H105-K6*****
1.5	13.0	11.0	5.0	10.0	0.6	W231H155-K6*****
1.8	13.0	12.0	6.0	10.0	0.6	W231H185-K6*****
2.2	13.0	12.0	6.0	10.0	0.6	W231H225-K6*****
0.68	18.0	11.0	5.0	15.0	0.8	W231H684-M8*****
1.0	18.0	11.0	5.0	15.0	0.8	W231H105-M8*****
1.5	18.0	11.0	5.0	15.0	0.8	W231H155-M8*****
1.8	18.0	11.0	5.0	15.0	0.8	W231H185-M8*****
2.2	18.0	11.0	5.0	15.0	0.8	W231H225-M8*****
3.3	18.0	12.0	6.0	15.0	0.8	W231H335-M8*****
4.7	18.0	13.5	7.5	15.0	0.8	W231H475-M8*****
6.8	18.0	14.5	8.5	15.0	0.8	W231H685-M8*****
10.0	18.0	19.0	11.0	15.0	0.8	W231H106-M8*****
3.3	26.5	16.0	7.0	22.0	0.8	W231H335-P8*****
4.7	26.5	16.0	7.0	22.0	0.8	W231H475-P8*****
6.8	26.5	16.0	7.0	22.0	0.8	W231H685-P8*****
10.0	26.5	17.0	8.5	22.0	0.8	W231H106-P8*****
15.0	26.5	20.0	11.0	22.0	0.8	W231H156-P8*****
4.7	32.0	18.0	9.0	27.0	0.8	W231H475-S8*****
6.8	32.0	18.0	9.0	27.0	0.8	W231H685-S8*****
10.0	32.0	18.0	9.0	27.0	0.8	W231H106-S8*****
15.0	32.0	18.0	9.0	27.0	0.8	W231H156-S8*****
22.0	32.0	22.0	13.0	27.0	0.8	W231H226-S8*****
33.0	32.0	24.5	15.0	27.0	0.8	W231H336-S8*****

100Vdc (63Vac)						
Cn ( $\mu$ F)	W max	H max	T max	P	d	Part number
0.22	10.5	8.5	3.5	7.5	0.5	W232A224-J5*****
0.33	10.5	9.0	4.0	7.5	0.6	W232A334-J6*****
0.47	10.5	9.0	4.0	7.5	0.6	W232A474-J6*****
0.68	10.5	11.0	5.0	7.5	0.6	W232A684-J6*****
1.0	10.5	12.0	6.0	7.5	0.6	W232A105-J6*****
0.10	13.0	9.0	4.0	10.0	0.6	W232A104-K6*****
0.15	13.0	9.0	4.0	10.0	0.6	W232A154-K6*****
0.22	13.0	9.0	4.0	10.0	0.6	W232A224-K6*****
0.33	13.0	9.0	4.0	10.0	0.6	W232A334-K6*****
0.47	13.0	9.0	4.0	10.0	0.6	W232A474-K6*****
0.68	13.0	9.0	4.0	10.0	0.6	W232A684-K6*****
1.0	13.0	11.0	5.0	10.0	0.6	W232A105-K6*****
1.5	13.0	12.0	6.0	10.0	0.6	W232A155-K6*****
0.33	18.0	11.0	5.0	15.0	0.8	W232A334-M8*****
0.47	18.0	11.0	5.0	15.0	0.8	W232A474-M8*****
0.68	18.0	11.0	5.0	15.0	0.8	W232A684-M8*****
1.0	18.0	11.0	5.0	15.0	0.8	W232A105-M8*****
1.5	18.0	12.0	6.0	15.0	0.8	W232A155-M8*****
1.8	18.0	12.0	6.0	15.0	0.8	W232A185-M8*****
2.2	18.0	12.0	6.0	15.0	0.8	W232A225-M8*****
3.3	18.0	13.5	7.5	15.0	0.8	W232A335-M8*****
4.7	18.0	14.5	8.5	15.0	0.8	W232A475-M8*****
1.5	26.5	15.0	6.0	22.0	0.8	W232A155-P8*****
1.8	26.5	15.0	6.0	22.0	0.8	W232A185-P8*****
2.2	26.5	15.0	6.0	22.0	0.8	W232A225-P8*****
3.3	26.5	15.0	6.0	22.0	0.8	W232A335-P8*****
4.7	26.5	16.0	7.0	22.0	0.8	W232A475-P8*****
6.8	26.5	18.5	10.0	22.0	0.8	W232A685-P8*****
10.0	26.5	22.0	12.0	22.0	0.8	W232A106-P8*****
4.7	32.0	18.0	9.0	27.0	0.8	W232A475-S8*****
6.8	32.0	18.0	9.0	27.0	0.8	W232A685-S8*****
10.0	32.0	20.0	11.0	27.0	0.8	W232A106-S8*****

备注: 1. "-" 表示容量偏差。"- " = capacitance tolerance code, M=±20%,K=±10%,J=±5%

2. 第 12 位表示引线加工和包装代码, L= 直脚 straight lead K= 引线成型 Lead kinked T= 弹带包装 ammo-pack

## ■ 外形尺寸 Dimensions (mm)

250Vdc (160Vac)						
Cn (μF)	W max	H max	T max	P	d	Part number
0.068	10.5	8.5	3.5	7.5	0.5	W232E683-J5*****
0.10	10.5	8.5	3.5	7.5	0.5	W232E104-J5*****
0.15	10.5	9.0	4.0	7.5	0.6	W232E154-J6*****
0.22	10.5	11.0	5.0	7.5	0.6	W232E104-J6*****
0.27	10.5	12.0	6.0	7.5	0.6	W232E274-J6*****
0.33	10.5	12.0	6.0	7.5	0.6	W232E334-J6*****
0.033	13.0	9.0	4.0	10.0	0.6	W232E333-K6*****
0.047	13.0	9.0	4.0	10.0	0.6	W232E473-K6*****
0.068	13.0	9.0	4.0	10.0	0.6	W232E683-K6*****
0.10	13.0	9.0	4.0	10.0	0.6	W232E104-K6*****
0.15	13.0	9.0	4.0	10.0	0.6	W232E154-K6*****
0.22	13.0	11.0	5.0	10.0	0.6	W232E224-K6*****
0.33	13.0	11.0	5.0	10.0	0.6	W232E334-K6*****
0.47	13.0	12.0	6.0	10.0	0.6	W232E474-K6*****
0.10	18.0	11.0	5.0	15.0	0.8	W232E104-M8*****
0.15	18.0	11.0	5.0	15.0	0.8	W232E154-M8*****
0.22	18.0	11.0	5.0	15.0	0.8	W232E224-M8*****
0.33	18.0	11.0	5.0	15.0	0.8	W232E334-M8*****
0.47	18.0	11.0	5.0	15.0	0.8	W232E474-M8*****
0.68	18.0	12.0	6.0	15.0	0.8	W232E684-M8*****
1.0	18.0	13.5	7.5	15.0	0.8	W232E105-M8*****
1.5	18.0	14.5	8.5	15.0	0.8	W232E155-M8*****
0.47	26.5	15.0	6.0	22.0	0.8	W232E474-P8*****
0.68	26.5	15.0	6.0	22.0	0.8	W232E684-P8*****
1.0	26.5	15.0	6.0	22.0	0.8	W232E105-P8*****
1.5	26.5	16.0	7.0	22.0	0.8	W232E155-P8*****
1.8	26.5	16.0	7.0	22.0	0.8	W232E185-P8*****
2.2	26.5	17.0	8.5	22.0	0.8	W232E225-P8*****
3.3	26.5	20.0	11.0	22.0	0.8	W232E335-P8*****
1.5	32.0	18.0	9.0	27.0	0.8	W232E155-S8*****
1.8	32.0	18.0	9.0	27.0	0.8	W232E185-S8*****
2.2	32.0	18.0	9.0	27.0	0.8	W232E225-S8*****
3.3	32.0	18.0	9.0	27.0	0.8	W232E335-S8*****
4.7	32.0	20.0	11.0	27.0	0.8	W232E475-S8*****
6.8	32.0	22.0	13.0	27.0	0.8	W232E685-S8*****

400Vdc (200Vac)						
Cn (μF)	W max	H max	T max	P	d	Part number
0.022	10.5	8.5	3.5	7.5	0.5	W232G223-J5*****
0.033	10.5	8.5	3.5	7.5	0.5	W232G333-J5*****
0.047	10.5	9.0	4.0	7.5	0.6	W232G473-J6*****
0.068	10.5	11.0	5.0	7.5	0.6	W232G683-J6*****
0.10	10.5	12.0	6.0	7.5	0.6	W232G104-J6*****
0.010	13.0	9.0	4.0	10.0	0.6	W232G103-K6*****
0.015	13.0	9.0	4.0	10.0	0.6	W232G153-K6*****
0.022	13.0	9.0	4.0	10.0	0.6	W232G223-K6*****
0.033	13.0	9.0	4.0	10.0	0.6	W232G333-K6*****
0.047	13.0	9.0	4.0	10.0	0.6	W232G473-K6*****
0.056	13.0	9.0	4.0	10.0	0.6	W232G563-K6*****
0.068	13.0	11.0	5.0	10.0	0.6	W232G683-K6*****

400Vdc (200Vac)						
Cn (μF)	W max	H max	T max	P	d	Part number
0.10	13.0	11.0	5.0	10.0	0.6	W232G104-K6*****
0.15	13.0	12.0	6.0	10.0	0.6	W232G154-K6*****
0.047	18.0	11.0	5.0	15.0	0.8	W232G473-M8*****
0.068	18.0	11.0	5.0	15.0	0.8	W232G683-M8*****
0.10	18.0	11.0	5.0	15.0	0.8	W232G104-M8*****
0.15	18.0	11.0	5.0	15.0	0.8	W232G154-M8*****
0.22	18.0	12.0	6.0	15.0	0.8	W232G224-M8*****
0.33	18.0	13.5	7.5	15.0	0.8	W232G334-M8*****
0.47	18.0	14.5	8.5	15.0	0.8	W232G474-M8*****
0.68	18.0	16.0	10.0	15.0	0.8	W232G684-M8*****
0.22	26.5	15.0	6.0	22.0	0.8	W232G224-P8*****
0.33	26.5	15.0	6.0	22.0	0.8	W232G334-P8*****
0.47	26.5	15.0	6.0	22.0	0.8	W232G474-P8*****
0.68	26.5	16.0	7.0	22.0	0.8	W232G684-P8*****
1.0	26.5	18.5	10.0	22.0	0.8	W232G105-P8*****
1.5	26.5	22.0	12.0	22.0	0.8	W232G155-P8*****
0.68	32.0	18.0	9.0	27.0	0.8	W232G684-S8*****
1.0	32.0	18.0	9.0	27.0	0.8	W232G105-S8*****
1.5	32.0	20.0	11.0	27.0	0.8	W232G155-S8*****

630Vdc (220Vac)@						
Cn (μF)	W max	H max	T max	P	d	Part number
0.0047	10.5	8.5	3.5	7.5	0.5	W232J472-J5*****
0.0068	10.5	8.5	3.5	7.5	0.5	W232J682-J5*****
0.010	10.5	8.5	3.5	7.5	0.5	W232J103-J5*****
0.015	10.5	9.0	4.0	7.5	0.6	W232J153-J6*****
0.022	10.5	11.0	5.0	7.5	0.6	W232J223-J6*****
0.033	10.5	12.0	6.0	7.5	0.6	W232J333-J6*****
0.0047	13.0	9.0	4.0	10.0	0.6	W232J472-K6*****
0.0068	13.0	9.0	4.0	10.0	0.6	W232J682-K6*****
0.010	13.0	9.0	4.0	10.0	0.6	W232J103-K6*****
0.015	13.0	9.0	4.0	10.0	0.6	W232J153-K6*****
0.022	13.0	9.0	4.0	10.0	0.6	W232J223-K6*****
0.033	13.0	11.0	5.0	10.0	0.6	W232J333-K6*****
0.047	13.0	11.0	5.0	10.0	0.6	W232J473-K6*****
0.068	13.0	12.0	6.0	10.0	0.6	W232J683-K6*****
0.033	18.0	11.0	5.0	15.0	0.8	W232J333-M8*****
0.047	18.0	11.0	5.0	15.0	0.8	W232J473-M8*****
0.068	18.0	11.0	5.0	15.0	0.8	W232J683-M8*****
0.10	18.0	12.0	6.0	15.0	0.8	W232J104-M8*****
0.15	18.0	13.5	7.5	15.0	0.8	W232J154-M8*****
0.22	18.0	16.0	10.0	15.0	0.8	W232J224-M8*****
0.33	18.0	19.0	11.0	15.0	0.8	W232J334-M8*****
0.10	26.5	15.0	6.0	22.0	0.8	W232J104-P8*****
0.15	26.5	15.0	6.0	22.0	0.8	W232J154-P8*****
0.22	26.5	16.0	7.0	22.0	0.8	W232J224-P8*****
0.33	26.5	16.0	7.0	22.0	0.8	W232J334-P8*****
0.47	26.5	17.0	8.5	22.0	0.8	W232J474-P8*****
0.68	26.5	22.0	12.0	22.0	0.8	W232J684-P8*****

备注: 1. "-" 表示容量偏差。"- " = capacitance tolerance code, M=±20%,K=±10%,J=±5%

2. 第 12 位表示引线加工和包装代码, L= 直脚 straight lead K= 引线成型 Lead kinked T= 弹带包装 ammo-pack

3. "@" 不适用跨线电路应用 Not suitable for across-the-line applications.