



Guang Zhou Nan Cai Electronic CO.,LTD.  
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# 規格承認書

## (SPECIFICATION FOR APPROVAL)

File No.: Q/BH .TS16949.13TECH1303

Product Name: Metallized polyester film A.C. capacitor for capacitive divider(Box)  
(Class ac250V ac300V)

Product Type: C23(E)(交流聚酯膜降压电容器)

Product Code: C23(E)

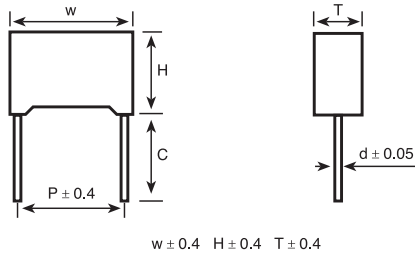
Customer:

Customer Code:

Issue Date: (V3.0)

## 电容降压专用金属化聚酯膜交流电容器 Metallized polyester film A.C.capacitor for capacitive divider

### ■ 外形图 Outline Drawing



### ■ 特点

- 专门设计用于与电源串联的电容降压电路场合，如电表、LED驱动模块等。
- 金属化聚酯膜内串式结构
- 自愈性能优异，能承受过电压冲击
- 长期负载下优异的电容容量稳定性
- 优异的防潮性能
- 优异的阻燃性能

### ■ Features

- This is specifically designed for applications in serial with the main, i.e.: capacitive divider, for example, energy meter, LED driver etc.
- Metallized polyester film with series construction
- Good self-healing properties,withstanding overvoltage stressing
- Long stability of capacitance
- Good properties in damp environment
- Excellent active and passive flame resistant abilities

### ■ 技术要求 Specifications

|   |   |  |
|---|---|--|
| 引用标准<br>Reference Standard                | GB/T 14472 (IEC60384-14)  |  |
| 气候类别<br>Climatic Category                 | 55/105/56   |  |
| 额定温度<br>Rated temperature                 | 85℃   |  |
| 工作温度范围<br>Operating Temperature Range     | -55℃ ~ +105℃ (+85℃ to +105℃: decreasing factor 1.25% per °C for $U_R$ ) |  |
| 额定电压<br>Rated Voltage( $U_R$ )            | 250Vac, 50/60Hz   | 300Vac, 50/60Hz  |
| 最大连续直流电压<br>Maximum continuous DC voltage | 560Vdc  | 630Vdc   |
| 电容量范围<br>Capacitance Range                | 0.10μF~6.8μF  |  |
| 电容量偏差<br>Capacitance Tolerance            | ± 5%(J)、± 10%(K)、± 20%(M)   |  |
| 耐电压<br>Voltage Proof(Between Terminals)   | 4.3 $U_R$ (Vdc) (2s)  |  |
| 绝缘电阻<br>Insulation Resistance             | $R \geq 15\ 000M\Omega$ ,<br>$R_C \geq 5\ 000s$ ,                       | $C_R \leq 0.33\mu F$<br>$C_R > 0.33\mu F$<br>(20℃, 100V, 1min) |
| 损耗角正切<br>Dissipation Factor               | $\leq 100 \times 10^{-4}$ (1kHz, 20℃)                                   | $\leq 150 \times 10^{-4}$ (10kHz, 20℃)                         |

注：长寿命要求和连续工作请选用275Vac及以上电压。

Note: For long lifetime and continuous working, please choose 275Vac and upwards voltage.



C23(E)

**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 | 2 | 3 |   |   |   |   |   |   |    | E  |    |    |    |    |    |    |    |

|         |  |                |  |
|---------|--|----------------|--|
| 第1~3位   | 型号代码<br>C23                                      | Digit 1 to 3   | Series code<br>C23   |
| 第4~5位   | 交流额定电压<br>E2=250V Q1=300V                        | Digit 4 to 5   | AC rated voltage<br>E2=250V Q1=300V                                      |
| 第6~8位   | 标称容量<br>举例: 104=10x10 <sup>4</sup> pF=0.10μF     | Digit 6 to 8   | Rated capacitance value<br>For example: 104=10x10 <sup>4</sup> pF=0.10μF |
| 第9位     | 容量偏差<br>J=±5% K=±10% M=±20%                      | Digit 9        | Capacitance tolerance<br>J=±5% K=±10% M=±20%                             |
| 第10位    | 引线脚距 P<br>6=15.0mm 9=22.5mm<br>B=27.5mm F=37.5mm | Digit 10       | Pitch<br>6=15.0mm 9=22.5mm<br>B=27.5mm F=37.5mm                          |
| 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   |

■ Table1 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<br>ammo-pack                                 | 6             | F=15.0mm                                   | 0             | 表示直脚<br>straight | 5   | P3=25.4mm,H=18.5mm (For pitch=10.0/15.0mm)<br>(Detail parameter refer to pag 17) |
| C             | 直脚<br>straight lead<br>"C" in the<br>figure above | 代码 Code       | 说明 explanation                             |               | 0                | 引线长度偏差 ±0.5mm或标准长度<br>Length tolerance ±0.5mm<br>Or standard length |  |
|               |   | 00            | 标准的引线长度(18mm~26mm)<br>standard lead length |               |                  |   |  |
|               |   | 45            | 引线长度 4.5mm<br>lead length 4.5mm            |               |                  |   |  |



C23(E)

■ 外形尺寸 Dimensions(mm)

| 250Vac                 |      |      |      |      |     |                    |
|------------------------|------|------|------|------|-----|--------------------|
| C <sub>R</sub><br>(μF) | W    | H    | T    | P    | d   | Part number        |
| 0.10                   | 17.5 | 12.0 | 6.0  | 15.0 | 0.6 | C23E2104-6E****+++ |
| 0.15                   | 17.5 | 13.5 | 7.5  | 15.0 | 0.6 | C23E2154-6E****+++ |
| 0.22                   | 17.5 | 14.5 | 8.5  | 15.0 | 0.6 | C23E2224-6E****+++ |
| 0.27                   | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 | C23E2274-6E****+++ |
| 0.33                   | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 | C23E2334-6E****+++ |
| 0.47                   | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 | C23E2474-6E****+++ |
| 0.15                   | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C23E2154-9E****+++ |
| 0.22                   | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C23E2224-9E****+++ |
| 0.33                   | 26.5 | 16.0 | 7.0  | 22.5 | 0.8 | C23E2334-9E****+++ |
| 0.39                   | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C23E2394-9E****+++ |
| 0.47                   | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C23E2474-9E****+++ |
| 0.56                   | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 | C23E2564-9E****+++ |
| 0.68                   | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 | C23E2684-9E****+++ |
| 0.82                   | 26.5 | 20.0 | 11.0 | 22.5 | 0.8 | C23E2824-9E****+++ |
| 1.0                    | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 | C23E2105-9E****+++ |
| 1.5                    | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 | C23E2155-9E****+++ |
| 0.47                   | 32.0 | 18.0 | 9.0  | 27.5 | 0.8 | C23E2474-BE****+++ |
| 0.68                   | 32.0 | 18.0 | 9.0  | 27.5 | 0.8 | C23E2684-BE****+++ |
| 0.82                   | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C23E2824-BE****+++ |
| 1.0                    | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C23E2105-BE****+++ |
| 1.5                    | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 | C23E2155-BE****+++ |
| 2.2                    | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 | C23E2225-BE****+++ |
| 3.3                    | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 | C23E2335-BE****+++ |
| 4.0                    | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 | C23E2405-BE****+++ |
| 4.7                    | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 | C23E2475-BE****+++ |
| 1.0                    | 41.0 | 22.0 | 11.0 | 37.5 | 1.0 | C23E2105-FE****+++ |
| 1.5                    | 41.0 | 24.0 | 13.0 | 37.5 | 1.0 | C23E2155-FE****+++ |
| 2.2                    | 41.0 | 26.0 | 15.0 | 37.5 | 1.0 | C23E2225-FE****+++ |
| 3.3                    | 41.0 | 30.0 | 16.0 | 37.5 | 1.0 | C23E2335-FE****+++ |
| 4.0                    | 41.0 | 32.0 | 17.0 | 37.5 | 1.0 | C23E2405-FE****+++ |
| 4.7                    | 41.0 | 33.5 | 18.5 | 37.5 | 1.0 | C23E2475-FE****+++ |
| 6.0                    | 41.0 | 37.0 | 22.0 | 37.5 | 1.0 | C23E2605-FE****+++ |
| 6.8                    | 41.0 | 41.0 | 26.0 | 37.5 | 1.0 | C23E2685-FE****+++ |

| 300Vac                 |      |      |      |      |     |                    |
|------------------------|------|------|------|------|-----|--------------------|
| C <sub>R</sub><br>(μF) | W    | H    | T    | P    | d   | Part number        |
| 0.10                   | 17.5 | 13.5 | 7.5  | 15.0 | 0.6 | C23Q1104-6E****+++ |
| 0.15                   | 17.5 | 14.5 | 8.5  | 15.0 | 0.6 | C23Q1154-6E****+++ |
| 0.22                   | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 | C23Q1224-6E****+++ |
| 0.27                   | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 | C23Q1274-6E****+++ |
| 0.33                   | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 | C23Q1334-6E****+++ |
| 0.10                   | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C23Q1104-9E****+++ |
| 0.15                   | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C23Q1154-9E****+++ |
| 0.22                   | 26.5 | 16.0 | 7.0  | 22.5 | 0.8 | C23Q1224-9E****+++ |
| 0.33                   | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C23Q1334-9E****+++ |
| 0.39                   | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C23Q1394-9E****+++ |
| 0.47                   | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 | C23Q1474-9E****+++ |
| 0.56                   | 26.5 | 20.0 | 11.0 | 22.5 | 0.8 | C23Q1564-9E****+++ |
| 0.68                   | 26.5 | 20.0 | 11.0 | 22.5 | 0.8 | C23Q1684-9E****+++ |
| 0.75                   | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 | C23Q1754-9E****+++ |
| 0.82                   | 26.5 | 23.0 | 13.5 | 22.5 | 0.8 | C23Q1824-9E****+++ |
| 1.0                    | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 | C23Q1105-9E****+++ |
| 0.47                   | 32.0 | 18.0 | 9.0  | 27.5 | 0.8 | C23Q1474-BE****+++ |
| 0.56                   | 32.0 | 18.0 | 9.0  | 27.5 | 0.8 | C23Q1564-BE****+++ |
| 0.68                   | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C23Q1684-BE****+++ |
| 0.82                   | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C23Q1824-BE****+++ |
| 1.0                    | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 | C23Q1105-BE****+++ |
| 1.5                    | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 | C23Q1155-BE****+++ |
| 2.2                    | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 | C23Q1225-BE****+++ |
| 3.3                    | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 | C23Q1335-BE****+++ |
| 1.0                    | 41.0 | 22.0 | 11.0 | 37.5 | 1.0 | C23Q1105-FE****+++ |
| 1.5                    | 41.0 | 30.0 | 16.0 | 37.5 | 1.0 | C23Q1155-FE****+++ |
| 2.2                    | 41.0 | 33.5 | 18.5 | 37.5 | 1.0 | C23Q1225-FE****+++ |
| 3.3                    | 41.0 | 37.0 | 22.0 | 37.5 | 1.0 | C23Q1335-FE****+++ |
| 4.0                    | 41.0 | 37.0 | 22.0 | 37.5 | 1.0 | C23Q1405-FE****+++ |
| 4.7                    | 41.0 | 41.0 | 26.0 | 37.5 | 1.0 | C23Q1475-FE****+++ |
| 6.0                    | 41.0 | 41.0 | 26.0 | 37.5 | 1.0 | C23Q1605-FE****+++ |
| 6.8                    | 41.0 | 43.0 | 28.0 | 37.5 | 1.0 | C23Q1685-FE****+++ |

备注: 1. “-”表示容量偏差。“-”=capacitance tolerance code, J= ±5%, K= ±10%, M= ±20%  
 2. “\*\*\*\*”表示引线形状和包装代码(见table 1)。“\*\*\*\*”=lead form and packing code(refer to table 1)