



## SPECIFICATION FOR APPROVAL

File No.: O/FRK 0.GS.E.C43-C16

Product Name Metallized Polypropylene Film Interference Suppression Capacitor  
(Class Y2,300Vac)

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Product Type MKP63

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Product Code C43

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Customer \_\_\_\_\_

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Customer Code \_\_\_\_\_

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Issue Date 2020-05

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| Xiamen Faratronic Co. Ltd. |         |          | Approved by Customer |
|----------------------------|---------|----------|----------------------|
| Drafted                    | Checked | Approved |                      |
|                            |         |          |                      |



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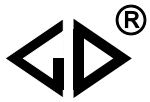
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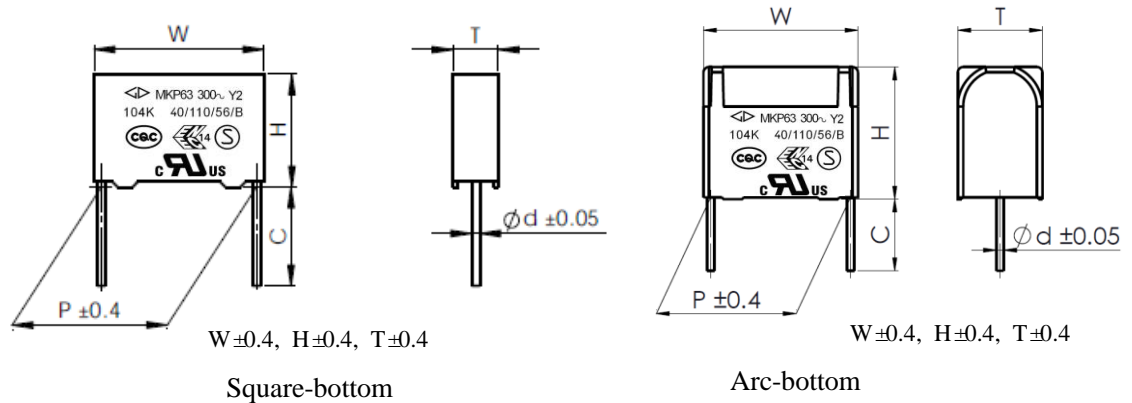
Http: [www.faratronic.com.cn](http://www.faratronic.com.cn)

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## Version history

| Current version | Date | Author | Change description |
|-----------------|------|--------|--------------------|
|                 |      |        |                    |

**Metallized polypropylene film interference suppression capacitor (Class Y2, 300Vac)**
**Outline Drawing**

**Features**

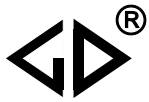
- Withstanding overvoltage stressing
- Excellent active and passive flame resistant abilities
- Widely used in across-the-line, line-by-pass, antenna Coupling interference suppression circuit, etc.

**Safety Approvals**

|   |  |            |  |
|---|--|------------|--|
| ● |  | CQC        | IEC 60384-14:2013+AMD1:2016, Y2, 300Vac/1000Vdc, 0.001 $\mu$ F~1.0 $\mu$ F, 40/110/56/B<br>Certificate No.: CQC04001009958       |
| ● |  | ENEC-SEMKO | EN 60384-14:2013+A1:2016, Y2, 300 Vac/1000Vdc, 0.001 $\mu$ F~1.0 $\mu$ F, 40/110/56/B<br>Certificate No.: SE/0366-2D             |
| ● |  | UL/CUL     | UL60384-14:2016, CSA E60384-14:14, Y2, 300Vac/1000Vdc, 0.001 $\mu$ F~1.0 $\mu$ F, 40/110/56/B<br>File No.: E186600, CCN: FOWX2/8 |
| ● |  | KC         | K60384-14(2006-12), Y2, 300Vac, 0.001 $\mu$ F~0.1 $\mu$ F, 40/110/56/B<br>Certificate No.: SU03060-12005                         |

**Specifications**

|   |  |   |
|---|--|---|
| Class   | Class Y2   |   |
| Climatic Category / Passive Flammability Category | 40/110/56/B  |   |
| Operating Temperature Range                       | -40°C ~ +110°C   |   |
| Rated Voltage ( $U_R$ )                           | 300Vac, 50/60Hz  |   |
| Rated DC voltage                                  | 1 000Vdc   |   |
| Capacitance Range                                 | 0.0010 $\mu$ F~1.0 $\mu$ F   |   |
| Capacitance Tolerance                             | $\pm 10\%$ (K), $\pm 20\%$ (M)   |   |
| Voltage Proof                                     | Between Terminals:   | 2 000Vac(2s) or 4 000Vdc(2s) $C_N \leq 0.33\mu F$<br>3 700Vdc(2s) $C_N > 0.33\mu F$ |
|   | Between Terminals To Case:   | 2 500Vac(1min)  |
| Insulation Resistance                             | $R \geq 15\ 000M\Omega$ , $C_N \leq 0.33\mu F$<br>$RC_N \geq 5\ 000s$ , $C_N > 0.33\mu F$ (20°C, 100V, 1min) |   |
| Dissipation Factor                                | $\leq 30 \times 10^{-4}$ (1kHz, 20°C)  | $\leq 40 \times 10^{-4}$ (10kHz, 20°C)  |



**■ Part number system**

The 15 digits part number is formed as follow:

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| C | 4 | 3 |   |   |   |   |   |   |    |    |    |    |    |    |

Digit 1 to 3 Series code

C43=MKP63

Digit 4 to 5 A.C. rated voltage

Q1=300V

Digit 6 to 8 Rated capacitance value

For example : 103=10×10<sup>3</sup> pF= 0.01μF

Digit 9 Capacitance tolerance

K= ± 10%, M= ± 20%

Digit 10 Pitch

3=7.5mm 4=10mm 6=15mm

9=22.5mm B=27.5mm F=37.5mm

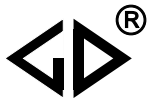
Digit 11 Internal use

Digit 12 to 15 Lead form and packaging code

**Table 1 Lead form and packaging code**

| Digit 12 |  | Digit 13             |   | Digit 14  |  | Digit 15 |  |
|----------|--|----------------------|---|---|--|----------|--|
| code     | explanation                                      | code                 | explanation   | code  | explanation  | code     | explanation  |
| A        | ammo-pack  | 3<br>4<br>6          | F=7.5mm<br>F=10.0mm<br>F=15.0mm                       | 0   | Straight   | 1<br>5   | each cap. among two consecutive holes<br>P3=12.7mm,H=18.5mm (For P=7.5mm)<br>P3=25.4mm;H=18.5mm (For pitch=10/15mm)<br>(Detail parameter refer to page 11) |
| C        | straight lead<br>"C" in the<br>figure above      | code                 | explanation   |   | 0  | 0        | Length tolerance ±0.5mm or standard length   |
|          |  | 00<br>45             | standard lead length (18mm~26mm)<br>lead length 4.5mm |   |  |          |  |
| D        | Insulated<br>stranded leads                      | C5<br>K0<br>K2<br>L0 | 35mm<br>100mm<br>120mm<br>200mm                       | Note 1: This length<br>includes the stripping<br>parts. | Note 2: Normally, for<br>P ≥ 27.5 Caps can<br>choice Insulated<br>leads. | 1        | Length tolerance -5 mm~0 mm  |
| E        | Insulated<br>solid leads                         |                      |   |   |  | 2        | Length tolerance 0 mm~+5 mm  |
| M        | Insulated leads<br>and box with<br>mounting foot |                      |   |   |  | 3        | Length tolerance 0 mm~+10mm  |
|          |  |                      |   |   |  | 4        | Length tolerance ±5 mm   |

Note: Recommend short lead due to long lead could deform easily.



■ Dimensions(mm)

Standard type

| 300Vac                 |      |      |      |      |     |                 | 300Vac                 |      |      |      |      |     |                 |
|------------------------|------|------|------|------|-----|-----------------|------------------------|------|------|------|------|-----|-----------------|
| C <sub>N</sub><br>(μF) | W    | H    | T    | P    | d   | Part number     | C <sub>N</sub><br>(μF) | W    | H    | T    | P    | d   | Part number     |
| 0.0010                 | 10.5 | 9.0  | 4.0  | 7.5  | 0.6 | C43Q1102-30**** | 0.10                   | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C43Q1104-9S**** |
| 0.0012                 | 10.5 | 9.0  | 4.0  | 7.5  | 0.6 | C43Q1122-30**** | 0.12                   | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C43Q1124-9S**** |
| 0.0015                 | 10.5 | 9.0  | 4.0  | 7.5  | 0.6 | C43Q1152-30**** | 0.15                   | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 | C43Q1154-9S**** |
| 0.0018                 | 10.5 | 9.0  | 4.0  | 7.5  | 0.6 | C43Q1182-30**** | 0.18                   | 26.5 | 20.0 | 11.0 | 22.5 | 0.8 | C43Q1184-9S**** |
| 0.0022                 | 10.5 | 9.0  | 4.0  | 7.5  | 0.6 | C43Q1222-30**** | 0.22                   | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 | C43Q1224-9S**** |
| 0.0027                 | 10.5 | 9.0  | 4.0  | 7.5  | 0.6 | C43Q1272-30**** | 0.27                   | 26.5 | 23.0 | 13.5 | 22.5 | 0.8 | C43Q1274-9S**** |
| 0.0033                 | 10.5 | 11.0 | 5.0  | 7.5  | 0.6 | C43Q1332-30**** | 0.33                   | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 | C43Q1334-9S**** |
| 0.0039                 | 10.5 | 11.0 | 5.0  | 7.5  | 0.6 | C43Q1392-30**** | 0.39                   | 26.5 | 29.5 | 14.5 | 22.5 | 0.8 | C43Q1334-9A**** |
| 0.0047                 | 10.5 | 12.0 | 6.0  | 7.5  | 0.6 | C43Q1472-30**** | 0.39M                  | 26.5 | 29.5 | 14.5 | 22.5 | 0.8 | C43Q1394M9S**** |
| 0.0056                 | 10.5 | 12.0 | 6.0  | 7.5  | 0.6 | C43Q1562-30**** | 0.10                   | 32.0 | 18.0 | 9.0  | 27.5 | 0.8 | C43Q1104-B0**** |
| 0.0010                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1102-40**** | 0.12                   | 32.0 | 18.0 | 9.0  | 27.5 | 0.8 | C43Q1124-B0**** |
| 0.0012                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1122-40**** | 0.15                   | 32.0 | 18.0 | 9.0  | 27.5 | 0.8 | C43Q1154-BS**** |
| 0.0015                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1152-40**** | 0.15                   | 32.0 | 12.0 | 18.0 | 27.5 | 0.8 | C43Q1154-BC**** |
| 0.0018                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1182-40**** | 0.18                   | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C43Q1184-BS**** |
| 0.0022                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1222-40**** | 0.22                   | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C43Q1224-BS**** |
| 0.0027                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1272-40**** | 0.22M                  | 32.0 | 12.0 | 18.0 | 27.5 | 0.8 | C43Q1224MBC**** |
| 0.0033                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1332-40**** | ★0.22K                 | 32.0 | 12.0 | 22.0 | 27.5 | 0.8 | C43Q1224KBC**** |
| 0.0039                 | 13.0 | 9.0  | 4.0  | 10.0 | 0.6 | C43Q1392-40**** | 0.27M                  | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C43Q1274MBS**** |
| 0.0047                 | 13.0 | 11.0 | 5.0  | 10.0 | 0.6 | C43Q1472-40**** | 0.27K                  | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 | C43Q1274KBS**** |
| 0.0056                 | 13.0 | 11.0 | 5.0  | 10.0 | 0.6 | C43Q1562-41**** | 0.33M                  | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 | C43Q1334MBS**** |
| 0.0068                 | 13.0 | 11.0 | 5.0  | 10.0 | 0.6 | C43Q1682-41**** | 0.33K                  | 32.0 | 25.0 | 13.0 | 27.5 | 0.8 | C43Q1334KBS**** |
| 0.0068                 | 13.0 | 7.5  | 9.5  | 10.0 | 0.6 | C43Q1682-4C**** | 0.33K                  | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 | C43Q1334KBA**** |
| 0.0082                 | 13.0 | 12.0 | 6.0  | 10.0 | 0.6 | C43Q1822-40**** | 0.33M                  | 32.0 | 15.0 | 21.0 | 27.5 | 0.8 | C43Q1334MBC**** |
| 0.010                  | 13.0 | 12.0 | 6.0  | 10.0 | 0.6 | C43Q1103-40**** | 0.39                   | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 | C43Q1394-BA**** |
| 0.015                  | 13.0 | 12.0 | 6.0  | 10.0 | 0.6 | C43Q1153-4S**** | 0.39                   | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 | C43Q1394-BS**** |
| 0.0022                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1222-60**** | 0.47M                  | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 | C43Q1474MBA**** |
| 0.0027                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1272-61**** | 0.47M                  | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 | C43Q1474MBS**** |
| 0.0033                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1332-61**** | 0.47K                  | 32.0 | 30.0 | 16.0 | 27.5 | 0.8 | C43Q1474KBS**** |
| 0.0039                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1392-61**** | 0.47K                  | 32.0 | 28.0 | 17.0 | 27.5 | 0.8 | C43Q1474KBA**** |
| 0.0047                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1472-61**** | ★0.47                  | 32.0 | 16.0 | 27.5 | 27.5 | 0.8 | C43Q1474-BC**** |
| 0.0056                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1562-61**** | 0.56                   | 32.0 | 30.0 | 16.0 | 27.5 | 0.8 | C43Q1564-BS**** |
| 0.0068                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1682-61**** | 0.56                   | 32.0 | 28.0 | 17.0 | 27.5 | 0.8 | C43Q1564-BA**** |
| 0.0082                 | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1822-61**** | 0.68M                  | 32.0 | 29.0 | 19.0 | 27.5 | 0.8 | C43Q1684MBA**** |
| 0.010                  | 17.5 | 9.5  | 5.0  | 15.0 | 0.6 | C43Q1103-6S**** | 0.68K                  | 32.0 | 30.0 | 21.0 | 27.5 | 0.8 | C43Q1684KBA**** |
| 0.012                  | 17.5 | 11.0 | 5.0  | 15.0 | 0.6 | C43Q1123-6S**** | 0.68                   | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 | C43Q1684-BS**** |
| 0.015                  | 17.5 | 11.0 | 5.0  | 15.0 | 0.6 | C43Q1153-6S**** | ★0.68                  | 32.0 | 18.5 | 31.0 | 27.5 | 0.8 | C43Q1684-BC**** |
| 0.018M                 | 17.5 | 11.0 | 5.0  | 15.0 | 0.6 | C43Q1183M6S**** | ★0.82M                 | 32.0 | 18.5 | 31.0 | 27.5 | 0.8 | C43Q1824MBC**** |
| 0.018K                 | 17.5 | 12.0 | 6.0  | 15.0 | 0.6 | C43Q1183K6S**** | 0.82M                  | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 | C43Q1824MBS**** |
| 0.022                  | 17.5 | 12.0 | 6.0  | 15.0 | 0.6 | C43Q1223-6S**** | 0.82K                  | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 | C43Q1824KBS**** |
| 0.027M                 | 17.5 | 12.0 | 6.0  | 15.0 | 0.6 | C43Q1273M6S**** | 1.0                    | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 | C43Q1105-BS**** |
| 0.027K                 | 17.5 | 12.0 | 7.0  | 15.0 | 0.6 | C43Q1273K6S**** | 0.33                   | 41.0 | 22.0 | 11.0 | 37.5 | 1.0 | C43Q1334-FS**** |
| 0.033                  | 17.5 | 13.5 | 7.5  | 15.0 | 0.6 | C43Q1333-6S**** | 0.39M                  | 41.0 | 22.0 | 11.0 | 37.5 | 1.0 | C43Q1394MFS**** |
| 0.033                  | 17.5 | 12.5 | 9.0  | 15.0 | 0.6 | C43Q1333-6A**** | 0.39K                  | 41.0 | 24.0 | 13.0 | 37.5 | 1.0 | C43Q1394KFS**** |
| 0.039                  | 17.5 | 13.5 | 7.5  | 15.0 | 0.6 | C43Q1393-6S**** | 0.47                   | 41.0 | 24.0 | 13.0 | 37.5 | 1.0 | C43Q1474-FS**** |
| 0.039                  | 17.5 | 12.5 | 9.0  | 15.0 | 0.6 | C43Q1393-6A**** | 0.47                   | 42.0 | 15.0 | 24.0 | 37.5 | 1.0 | C43Q1474-FC**** |
| 0.047                  | 17.5 | 14.5 | 8.5  | 15.0 | 0.6 | C43Q1473-6S**** | 0.56                   | 41.0 | 26.0 | 15.0 | 37.5 | 1.0 | C43Q1564-FS**** |
| 0.047                  | 17.5 | 12.0 | 13.0 | 15.0 | 0.8 | C43Q1473-6C**** | 0.56                   | 42.0 | 28.0 | 14.0 | 37.5 | 1.0 | C43Q1564-FA**** |
| 0.056                  | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 | C43Q1563-6S**** | 0.68M                  | 41.0 | 26.0 | 15.0 | 37.5 | 1.0 | C43Q1684MFA**** |
| 0.068                  | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 | C43Q1683-6S**** | 0.68M                  | 42.0 | 28.0 | 14.0 | 37.5 | 1.0 | C43Q1684MFS**** |
| 0.082                  | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 | C43Q1823-6S**** | 0.68K                  | 41.0 | 30.0 | 16.0 | 37.5 | 1.0 | C43Q1684KFS**** |
| 0.033                  | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C43Q1333-90**** | 0.68                   | 42.0 | 19.0 | 24.0 | 37.5 | 1.0 | C43Q1684-FC**** |
| 0.039                  | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C43Q1393-90**** | 0.82                   | 41.0 | 30.0 | 16.0 | 37.5 | 1.0 | C43Q1824-FS**** |
| 0.047                  | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C43Q1473-9S**** | 0.82M                  | 42.0 | 19.0 | 24.0 | 37.5 | 1.0 | C43Q1824MFC**** |
| 0.056                  | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C43Q1563-9S**** | 1.0M                   | 41.0 | 32.0 | 17.0 | 37.5 | 1.0 | C43Q1105MFS**** |
| 0.068M                 | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C43Q1683M9S**** | 1.0K                   | 41.0 | 33.5 | 18.5 | 37.5 | 1.0 | C43Q1105KFS**** |
| 0.068K                 | 26.5 | 16.0 | 7.0  | 22.5 | 0.8 | C43Q1683K9S**** |                        |      |      |      |      |     |                 |
| 0.082                  | 26.5 | 16.0 | 7.0  | 22.5 | 0.8 | C43Q1823-9S**** |                        |      |      |      |      |     |                 |

- Note: 1. “-”=capacitance tolerance code, M=±20%,K=±10%  
 2. “\*\*\*\*”=lead form and packaging mode code (refer to table 1)  
 3. “★” = Arc bottom of the outer shell.



■ Dimensions(mm)

High performance type

| 300Vac                 |      |      |      |      |     |                 | 300Vac                 |      |      |      |      |     |                 |
|------------------------|------|------|------|------|-----|-----------------|------------------------|------|------|------|------|-----|-----------------|
| C <sub>R</sub><br>(μF) | W    | H    | T    | P    | d   | Part number     | C <sub>R</sub><br>(μF) | W    | H    | T    | P    | d   | Part number     |
| 0.0068                 | 17.5 | 11.0 | 5.0  | 15.0 | 0.8 | C43Q1682-60**** | 0.15                   | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C43Q1154-B0**** |
| 0.0082                 | 17.5 | 11.0 | 5.0  | 15.0 | 0.8 | C43Q1822-60**** | 0.18                   | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 | C43Q1184-B0**** |
| 0.010                  | 17.5 | 11.0 | 5.0  | 15.0 | 0.8 | C43Q1103-60**** | 0.22                   | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 | C43Q1224-B0**** |
| 0.012                  | 17.5 | 12.0 | 6.0  | 15.0 | 0.8 | C43Q1123-60**** | 0.27M                  | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 | C43Q1274MB0**** |
| 0.015                  | 17.5 | 12.0 | 6.0  | 15.0 | 0.8 | C43Q1153-60**** | 0.27K                  | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 | C43Q1274KB0**** |
| 0.018                  | 17.5 | 12.0 | 6.0  | 15.0 | 0.8 | C43Q1183-60**** | 0.33                   | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 | C43Q1334-B0**** |
| 0.022                  | 17.5 | 13.5 | 7.5  | 15.0 | 0.8 | C43Q1223-60**** | 0.39                   | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 | C43Q1394-B0**** |
| 0.027M                 | 17.5 | 13.5 | 7.5  | 15.0 | 0.8 | C43Q1273M60**** | 0.47                   | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 | C43Q1474-B0**** |
| 0.027K                 | 17.5 | 14.5 | 8.5  | 15.0 | 0.8 | C43Q1273K60**** | 0.56                   | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 | C43Q1564-B0**** |
| 0.033                  | 17.5 | 14.5 | 8.5  | 15.0 | 0.8 | C43Q1333-60**** | 0.68K                  | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 | C43Q1684KB0**** |
| 0.039M                 | 17.5 | 14.5 | 8.5  | 15.0 | 0.8 | C43Q1393M60**** | 0.33                   | 41.0 | 24.0 | 13.0 | 37.5 | 1.0 | C43Q1334-F0**** |
| 0.039K                 | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 | C43Q1393K60**** | 0.39                   | 41.0 | 24.0 | 13.0 | 37.5 | 1.0 | C43Q1394-F0**** |
| 0.047                  | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 | C43Q1473-60**** | 0.47K                  | 41.0 | 26.0 | 15.0 | 37.5 | 1.0 | C43Q1474KF0**** |
| 0.056                  | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 | C43Q1563-60**** | 0.56                   | 41.0 | 30.0 | 16.0 | 37.5 | 1.0 | C43Q1564-F0**** |
| 0.047                  | 26.5 | 15.0 | 6.0  | 22.5 | 0.8 | C43Q1473-90**** | 0.68                   | 41.0 | 30.0 | 16.0 | 37.5 | 1.0 | C43Q1684-F0**** |
| 0.056                  | 26.5 | 16.0 | 7.0  | 22.5 | 0.8 | C43Q1563-90**** | 0.82                   | 41.0 | 33.5 | 18.5 | 37.5 | 1.0 | C43Q1824-F0**** |
| 0.068                  | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C43Q1683-90**** | 1.0                    | 41.0 | 37.0 | 22.0 | 37.5 | 1.0 | C43Q1105-F0**** |
| 0.082                  | 26.5 | 17.0 | 8.5  | 22.5 | 0.8 | C43Q1823-90**** |                        |      |      |      |      |     |                 |
| 0.10                   | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 | C43Q1104-90**** |                        |      |      |      |      |     |                 |
| 0.12                   | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 | C43Q1124-90**** |                        |      |      |      |      |     |                 |
| 0.15                   | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 | C43Q1154-90**** |                        |      |      |      |      |     |                 |
| 0.18                   | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 | C43Q1184-90**** |                        |      |      |      |      |     |                 |
| 0.22                   | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 | C43Q1224-90**** |                        |      |      |      |      |     |                 |

- Note: 1. “-”=capacitance tolerance code, M=±20%,K=±10%  
 2. “\*\*\*\*”=lead form and packaging mode code (refer to table 1)  
 3. “★” = Arc bottom of the outer shell.

**Maximum permissible voltage change per unit of time**

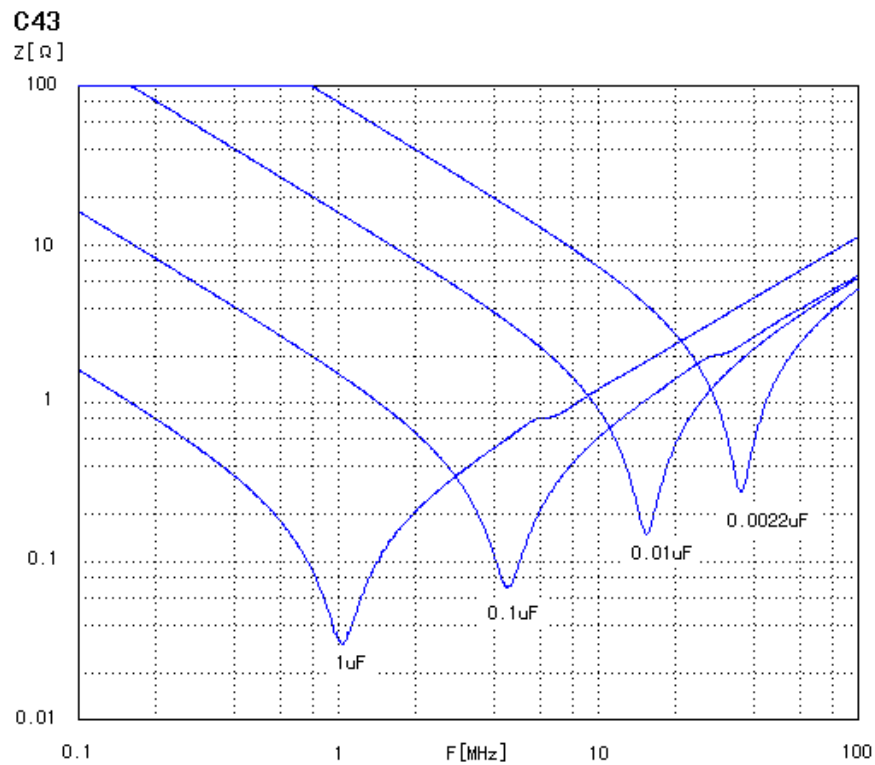
| Rated Voltage<br>(Vac) | Max dV/dt(V/us) at 425Vdc |        |        |          |          |          |
|------------------------|---------------------------|--------|--------|----------|----------|----------|
|                        | P=7.5mm                   | P=10mm | P=15mm | P=22.5mm | P=27.5mm | P=37.5mm |
| 300                    | 800                       | 800    | 600    | 500      | 400      | 300      |

Note:

1. Rated voltage pulse slope  $(dV/dt)_R$  at rated voltage.
2. 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  $U_R/U$ .

**Impedance Vs. Frequency**

TYPICAL GRAPHS

 $Z=f(f)$  Typical values


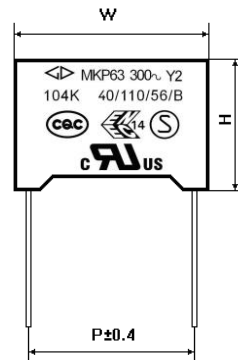
**■ Test Method And Performance**

| No. | Item   | Performance   | Test Method<br>(IEC 60384-14)   |
|-----|--|---|---|
| 1   | 4.5 Solderability                            | Good quality of tinning   | Solder temperature: 245°C ±5°C<br>Immersion time: 2.0s±0.5s   |
| 2   | 4.3<br>Terminal strength<br>(straight lead)  | There shall be no visible damage  | Tense: 0.50<d≤0.80, 10N<br>0.80<d≤1.25, 20N<br>Bend: 0.50<d≤0.80, 5N<br>0.80<d≤1.25, 10N<br>The terminals shall be bent 2 times in each direction   |
| 3   | 4.4<br>Resistance to solder heat             | There shall be no visible damage<br>$\Delta C/C \leq \pm 5\%$ (relative to the initial value) | Solder temperature: 260°C ±5°C<br>Immersion time: 10s ±1s   |
| 4   | 4.20<br>Solvent resistance<br>of the marking | The marking shall be legible  | Solvent: Industrial isopropanol.<br>Solvent temperature: 23°C ±5°C<br>Dipping time: 5min ±0.5min<br>Condition: scrub<br>Scrub material: absorbent cotton<br>Reverting time: No  |
| 5   | 4.2 Initial measurement                      | Capacitance, Tgδ  |   |
|     | 4.6 Rapid change<br>of temperature           | There shall be no evidence of deterioration.  | T <sub>A</sub> = -40°C, T <sub>B</sub> = +110°C 5 cycles<br>Duration: t=30min   |
|     | 4.7 Vibration(straight<br>lead)              | There shall be no evidence of deterioration.  | Amplitude 0.75mm or acceleration 100m/s <sup>2</sup> (whichever is the smaller severity), f: 10Hz to 500Hz. Three directions, 2h foreach direction, total 6h.   |
|     | 4.8 Bump(straight lead)                      | There shall be no evidence of deterioration.  | 4 000 times,<br>Acceleration: 400m/s <sup>2</sup> ,<br>Pulse duration, 6ms  |
|     | Final measurement                            | There shall be no visible damage<br>$\Delta C/C \leq \pm 5\%$ (relative to the initial value) |   |
| 6   | 4.11<br>Climate<br>sequence                  | Initial measurement   |   |
|     |  | Dry heat  | +110°C, 16h   |
|     |  | Damp heat, Cyclic   | Test Db, Severity: b, the first cycle   |
|     |  | Cold  | -40°C, 2h   |
|     |  | Damp heat, cyclic other   | Test Db, Severity b, the other cycles,  |
|     |  | Final measurement   | There shall be no visible damage, legible marking<br>$\Delta C/C \leq \pm 5\%$ (relative to the initial value)<br>Increase of tgδ: ≤0.008 (10kHz)<br>Dielectric strength : there shall be no permanent breakdown or flashover<br>I.R.: ≥ 50% of the rated value |



| No. | Item                                | Performance  | Test Method<br>(IEC 60384-14)   |
|-----|-------------------------------------|--|---|
| 7   | 4.12<br>Damp heat<br>steady state   | There shall be no visible damage,<br>legible marking<br>$\Delta C/C \leq \pm 5\%$ (relative to the initial value)<br>Increase of $\text{tg}\delta$ : $\leq 0.008$ (10kHz)<br>Dielectric strength : there shall be no<br>permanent breakdown or flashover<br>I.R.: $\geq 50\%$ of the rated value | Temperature: $40^\circ\text{C} \pm 2^\circ\text{C}$<br>Humidity: $93 \pm 3\% \text{RH}$<br>Duration: 56 days  |
| 8   | 4.13<br>Impulse voltage             | There are three or more waveforms<br>which indicate that no self-heating<br>breakdown have occurred when it is<br>monitored by the monitor   | Each individual capacitor shall be<br>subjected to 24 impulses of the same<br>polarity (when any three successive<br>impulses are shown by the monitor to<br>have a wave form indicating that no<br>self-healing breakdown have taken<br>place the impulses can be stopped), the<br>time between impulses shall not be less<br>than 10s, and the peak value of the<br>voltage impulse: 5.0kV                          |
| 9   | 4.14 Endurance                      | There shall be no visible damage, legible<br>marking<br>$\Delta C/C \leq \pm 10\%$ (relative to the initial value)<br>Increase of $\text{tg}\delta$ : $\leq 0.008$ (10kHz)<br>Dielectric strength : There shall be no<br>breakdown or flashover<br>I.R. : $\geq 50\%$ of the rated value         | $+110^\circ\text{C}$ ,<br>$1.7U_R \text{V a.c.}$<br>1 000h<br>The voltage shall be subjected to<br>$1\ 000V_{\text{rms}}$ for 0.1s every one hour<br>during test.   |
| 10  | 4.15<br>Charging and<br>discharging | $\Delta C/C \leq \pm 10\%$ (relative to the initial<br>value)<br>Increase of $\text{tg}\delta$ :<br>$C_N \leq 1\ \mu\text{F}$ : $\leq 0.008$ (10kHz)<br>I.R.: $\geq 50\%$ of the rated value   | Times: 10 000<br>Duration of charging: 0.5s<br>Duration of discharging: 0.5s<br>Charging voltage: $\sqrt{2} U_R \text{V d.c.}$<br>Charging resistance: $220/C_N (\Omega)$ or the<br>current $\leq 1.0\text{A}$ (whichever is the<br>minor)<br>Discharging resistance:<br>$R = \frac{\sqrt{2}U_R}{C_N \times \frac{dU}{dt}} (\Omega)$<br>$C_N$ : Capacitance ( $\mu\text{F}$ )<br>$dU/dt$ (V/us) : 100V/ $\mu\text{s}$ |
| 11  | 4.17<br>Passive<br>flammability     | The flaming time of each capacitor shall<br>not go beyond 10s after it is taken apart<br>from the flame.<br>Drop of each capacitor caused by flame<br>shall not fire the tissue below.   | Needle flame test<br>The category of flammability: B<br>Expose time: 1 time<br>Capacitor Volume Exposing time<br>$250 < V(\text{mm}^3) \leq 500$ 20s<br>$500 < V(\text{mm}^3) \leq 1750$ 30s<br>$V(\text{mm}^3) > 1750$ 60s   |

| No. | Item                        | Performance  | Test Method<br>(IEC 60384-14)   |
|-----|-----------------------------|--|---|
| 12  | 4.18<br>Active flammability | The cheese cloth around the capacitor shall not burn with a flame. | <p>The specimens shall be individually wrapped in at least 1, but not more than 2, complete layers of cheesecloth, the cheesecloth shall be untreated pure cotton.</p> <p>Each sample shall be subjected to 20 discharges, the interval between successive discharges shall be <math>5_0^{+1}</math> s.</p> <p><math>U_i = 5.0kV_0^{+7} \%</math></p> <p>Throughout the test, the <math>U_R \pm 5\%</math> shall be applied across the capacitor under test and shall be maintained for <math>120_0^{+10}</math> s after the last discharge, unless a blown fuse cause an open circuit.</p> |

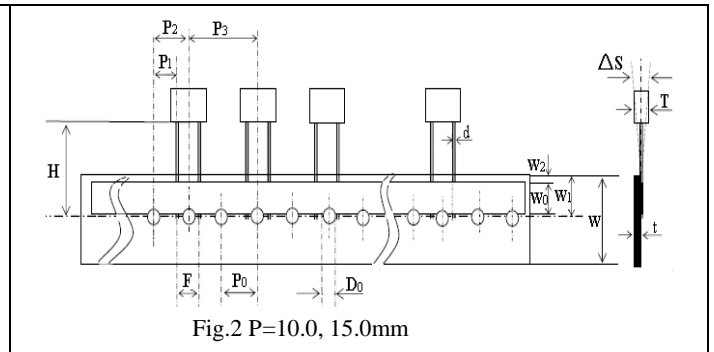
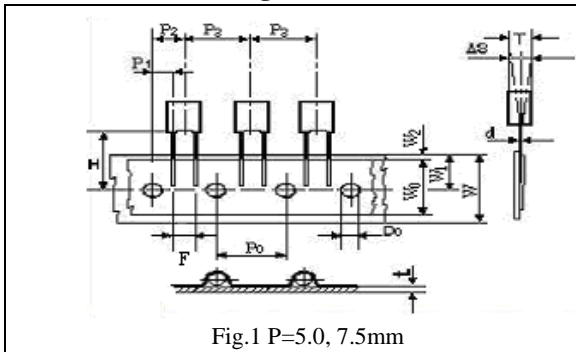
**■ Marking (For example)**


Marking Introduction:

| Sign  | explain                         | Sign        | explain                                       |
|-------|---------------------------------|-------------|---|
|       | Brand                           | 40/110/56/B | Climate category / Passive Flammability Class |
| MKP63 | Type                            |             | CQC Approval                                  |
| Y2    | Class                           |             | ENEC-SEMKO Approval                           |
| 300~  | Rated voltage                   |             | UL & CUL Approval                             |
| 104K  | Rated capacitance and tolerance |             |   |

## ■ Taping specification for box-type capacitors

### ▲ Outline Drawing



### ▲ Taping Dimensions(mm)

| Technology index title               | Code           | Dimensions |       |        |        | Tolerance    |
|--------------------------------------|----------------|------------|-------|--------|--------|--------------|
|                                      |                | P=5.0      | P=7.5 | P=10.0 | P=15.0 |              |
| Taping type                          | —              | Fig 1      | Fig 1 | Fig2   | Fig 2  | —            |
| Part number<br>Digit12-15            | Ammo-pack      | A201       | A301  | A405   | A605   |              |
| Taping pitch                         | P <sub>3</sub> | 12.7       | 12.7  | 25.4   | 25.4   | ±1.0         |
| Feed hole pitch                      | P <sub>0</sub> | 12.7       | 12.7  | 12.7   | 12.7   | ±0.3         |
| Center of wire                       | P <sub>1</sub> | 3.85       | 2.6   | 7.7    | 5.2    | ±0.7         |
| Center of body                       | P <sub>2</sub> | 6.35       | 6.35  | 12.7   | 12.7   | ±1.3         |
| Pitch of taping wire                 | F**            | 5.0        | 7.5   | 10.0   | 15.0   | +0.6<br>-0.1 |
| Component alignment                  | △S             | 0          | 0     | 0      | 0      | ±2.0         |
| Height of component from tape center | H***           | 18.5       | 18.5  | 18.5   | 18.5   | ±0.5         |
| Carrier tape width                   | W              | 18.0       | 18.0  | 18.0   | 18.0   | +1.0<br>-0.5 |
| Hold down tape width                 | W <sub>0</sub> | 6min       | 10min | 10min  | 10min  | —            |
| Hole position                        | W <sub>1</sub> | 9.0        | 9.0   | 9.0    | 9.0    | ±0.5         |
| Hold down tape position              | W <sub>2</sub> | 3max       | 3max  | 3max   | 3max   | —            |
| Feed hole dia.                       | D <sub>0</sub> | 4.0        | 4.0   | 4.0    | 4.0    | ±0.2         |
| Tape thickness                       | t              | 0.7        | 0.7   | 0.7    | 0.7    | ±0.2         |

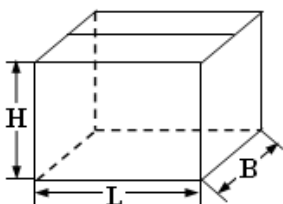
**Note:** \* P<sub>0</sub>=15mm is also available;

\*\*F can be other lead spacing;

\*\*\*H=16.5mm is available;

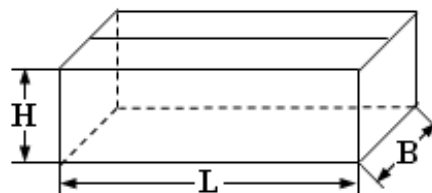
## ■ Packing box sizes(mm)(example)

1. Out packing box for bulk



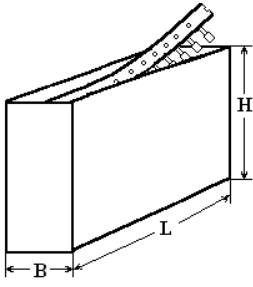
L: 375±5  
B: 375±5  
H: 265±5

2. Inner packing box for bulk



L: 355±3  
B: 175±3  
H: 118±3

3. Box sizes for Ammo-pack



L:  $350 \pm 3$   
B:  $50 \pm 3$   
H:  $260 \pm 3$