

# PLASTIC FILM CAPACITORS

nichicon

**XK**

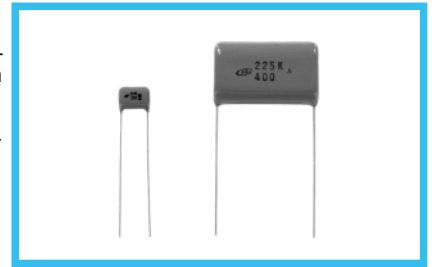
Metallized Polyester Film Capacitor

series (Extended Standard Type)



Smaller

- Highly reliable and superior performance in high frequency applications, self-healing and non-inductive construction, using a dielectric made of polyethylene terephthalate film covered with vacuum-evaporated metal.
- Large capacitance in small dimensions.
- Finished by inner dipping with liquid epoxy resin and outer coating with flame-retardant epoxy resin, those double coating provides excellent humidity resistance.
- Designed 1mm max. of epoxy on lead wire for best performance at soldering process on P.C. board assemblies.
- Compliant to the RoHS directive (2011/65/EU).



## Applications

- General electronic and communications equipment. Contact us for details for use in AC circuits.
- However, do not use this product for across-the-line applications.

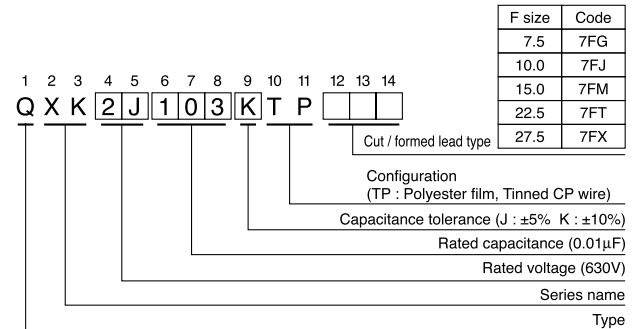
## Specifications

| Item                            | Performance Characteristics                                                                                                   |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Category Temperature Range      | -40 to +105°C (Rated temperature : 85°C)                                                                                      |
| Rated Voltage (U <sub>r</sub> ) | 250, 400, 630VDC                                                                                                              |
| Rated Capacitance Range         | 0.01 to 10μF                                                                                                                  |
| Capacitance Tolerance           | ±5% (J) ※, ±10% (K)                                                                                                           |
| Dielectric Loss Tangent         | 0.8% or less (at 1kHz 20°C)                                                                                                   |
| Insulation Resistance           | C ≤ 0.33μF : 9000 MΩ or more C > 0.33μF : 3000 ΩF or more                                                                     |
| Withstand Voltage               | Between Terminals : Rated Voltage × 175%, 1 to 5 secs.<br>Between Terminals and Coverage : Rated Voltage × 200%, 1 to 5 secs. |
| Encapsulation                   | Flame retardant epoxy resin                                                                                                   |

※ Except for 250VDC 0.01 to 0.15μF  
400VDC 0.01 to 0.033μF

Category voltage = U<sub>r</sub> × 0.7

Type numbering system (Example : 630V 0.01μF)



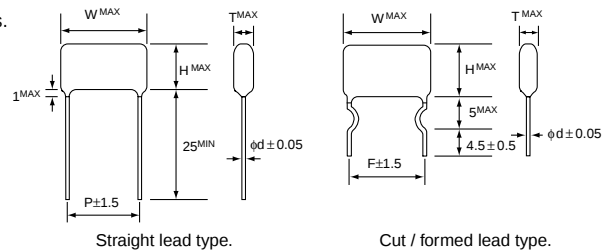
## AC Voltage

- AC Voltage (Operating at 50 / 60Hz AC circuit)  
shall be as follows. However, do not use this product for across-the-line applications.

| DC Rated Voltage | 250VDC | 400VDC | 630VDC |
|------------------|--------|--------|--------|
| AC Voltage       | 125VAC | 200VAC | 250VAC |

※ When operating capacitors in the high frequency circuit, maximum permissible value (VAC) can be calculated from table 2, provided that the effective current (I<sub>e</sub>) and the effective VA (V<sub>e</sub> × V<sub>e</sub>) shall not exceed the values specified in table 4. Shown in Pages 380, 383.

## Drawing



## Dimensions

Unit : mm

| Cap.(μF) | V(Code)<br>Size<br>Code | 250VDC (2E) |      |      |     |      |      |  | 400VDC (2G) |      |      |     |      |      |  | 630VDC (2J) |      |      |     |      |      |  |
|----------|-------------------------|-------------|------|------|-----|------|------|--|-------------|------|------|-----|------|------|--|-------------|------|------|-----|------|------|--|
|          |                         | T           | W    | H    | d   | P    | F    |  | T           | W    | H    | d   | P    | F    |  | T           | W    | H    | d   | P    | F    |  |
| 0.01     | 103                     | 4.4         | 11.0 | 8.1  | 0.6 | 7.5  | 7.5  |  | 4.4         | 11.0 | 8.1  | 0.6 | 7.5  | 7.5  |  | 4.4         | 13.5 | 9.5  | 0.6 | 10.0 | 10.0 |  |
| 0.015    | 153                     | 5.0         | 11.0 | 8.7  | 0.6 | 7.5  | 7.5  |  | 5.0         | 11.0 | 8.7  | 0.6 | 7.5  | 7.5  |  | 4.7         | 13.5 | 9.8  | 0.6 | 10.0 | 10.0 |  |
| 0.022    | 223                     | 4.4         | 11.0 | 8.5  | 0.6 | 7.5  | 7.5  |  | 4.3         | 11.0 | 8.4  | 0.6 | 7.5  | 7.5  |  | 5.1         | 13.5 | 10.8 | 0.6 | 10.0 | 10.0 |  |
| 0.033    | 333                     | 4.4         | 11.0 | 8.5  | 0.6 | 7.5  | 7.5  |  | 4.9         | 11.0 | 9.1  | 0.6 | 7.5  | 7.5  |  | 5.9         | 13.5 | 11.6 | 0.6 | 10.0 | 10.0 |  |
| 0.047    | 473                     | 4.0         | 11.0 | 8.1  | 0.6 | 7.5  | 7.5  |  | 4.7         | 13.5 | 9.8  | 0.6 | 10.0 | 10.0 |  | 6.4         | 13.5 | 13.7 | 0.6 | 10.0 | 10.0 |  |
| 0.068    | 683                     | 4.7         | 11.0 | 8.7  | 0.6 | 7.5  | 7.5  |  | 5.4         | 13.5 | 10.5 | 0.6 | 10.0 | 10.0 |  | 5.8         | 18.5 | 11.5 | 0.6 | 15.0 | 15.0 |  |
| 0.1      | 104                     | 5.2         | 11.0 | 9.4  | 0.6 | 7.5  | 7.5  |  | 6.1         | 13.5 | 11.7 | 0.6 | 10.0 | 10.0 |  | 6.4         | 18.5 | 13.7 | 0.6 | 15.0 | 15.0 |  |
| 0.15     | 154                     | 6.1         | 11.0 | 10.3 | 0.6 | 7.5  | 7.5  |  | 5.1         | 18.5 | 12.4 | 0.6 | 15.0 | 15.0 |  | 7.1         | 18.5 | 15.9 | 0.6 | 15.0 | 15.0 |  |
| 0.22     | 224                     | 5.9         | 13.5 | 11.0 | 0.6 | 10.0 | 10.0 |  | 5.9         | 18.5 | 13.2 | 0.6 | 15.0 | 15.0 |  | 9.6         | 18.5 | 15.3 | 0.6 | 15.0 | 15.0 |  |
| 0.33     | 334                     | 6.7         | 13.5 | 12.4 | 0.6 | 10.0 | 10.0 |  | 7.6         | 18.5 | 13.3 | 0.6 | 15.0 | 15.0 |  | 7.9         | 25.5 | 16.7 | 0.8 | 22.5 | 22.5 |  |
| 0.47     | 474                     | 5.5         | 18.5 | 12.8 | 0.6 | 15.0 | 15.0 |  | 8.3         | 18.5 | 15.6 | 0.6 | 15.0 | 15.0 |  | 9.4         | 25.5 | 18.2 | 0.8 | 22.5 | 22.5 |  |
| 0.68     | 684                     | 6.0         | 18.5 | 14.8 | 0.6 | 15.0 | 15.0 |  | 7.2         | 25.5 | 16.1 | 0.8 | 22.5 | 22.5 |  | 11.3        | 25.5 | 20.1 | 0.8 | 22.5 | 22.5 |  |
| 1.0      | 105                     | 7.1         | 18.5 | 16.0 | 0.6 | 15.0 | 15.0 |  | 8.7         | 25.5 | 17.6 | 0.8 | 22.5 | 22.5 |  | 12.0        | 30.5 | 21.0 | 0.8 | 27.5 | 27.5 |  |
| 1.5      | 155                     | 9.9         | 18.5 | 15.6 | 0.6 | 15.0 | 15.0 |  | 9.4         | 30.5 | 18.5 | 0.8 | 27.5 | 27.5 |  | 14.8        | 30.5 | 23.8 | 0.8 | 27.5 | 27.5 |  |
| 2.2      | 225                     | 8.1         | 25.5 | 17.0 | 0.8 | 22.5 | 22.5 |  | 11.5        | 30.5 | 20.5 | 0.8 | 27.5 | 27.5 |  | 18.5        | 30.5 | 28.0 | 0.8 | 27.5 | 27.5 |  |
| 3.3      | 335                     | 10.0        | 25.5 | 18.8 | 0.8 | 22.5 | 22.5 |  |             |      |      |     |      |      |  |             |      |      |     |      |      |  |
| 4.7      | 475                     | 12.0        | 25.5 | 20.8 | 0.8 | 22.5 | 22.5 |  |             |      |      |     |      |      |  |             |      |      |     |      |      |  |
| 6.8      | 685                     | 12.7        | 30.5 | 21.8 | 0.8 | 27.5 | 27.5 |  |             |      |      |     |      |      |  |             |      |      |     |      |      |  |
| 10.0     | 106                     | 15.6        | 30.5 | 24.7 | 0.8 | 27.5 | 27.5 |  |             |      |      |     |      |      |  |             |      |      |     |      |      |  |

F : lead pitch for cut / formed lead wires

Please contact us and let us know the specification you need.

CAT.8100C