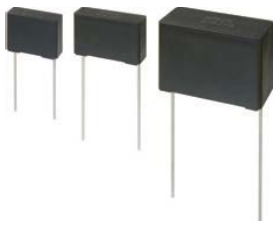
# Metallized Polypropylene Film Capacitor

## ECWFE series

UPGRADE



Non-inductive construction using metalized Polypropylene film with flame retardant plastic case.

## Features

- Small size
- Excellent frequency characteristics
- Low loss
- Flame retardant plastic case and non-combustible resin
- Low hum sound noise
- RoHS compliant

## Recommended applications

- Active filter circuit
- High frequency circuit

## Explanation of part number

- Standard

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E | C | W | F | E | | | | | | | |
| Product code | | Dielectric & construction | | | Rated voltage | | Capacitance | | | Cap. Tol. | Suffix |

| | |
|---|---|
| 2W | 450 V.DC |
| 2J | 630 V.DC |

| | |
|---|---|
| J | ±5 % |
| K | ±10 % |

| Code | Lead form |
|---|---|
| Blank | Straight |
| A | Cut lead |

- Special lead space product

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E | C | W | F | E | | | | | | | |
| Product code | | Dielectric & construction | | | Rated voltage | | Capacitance | | | Cap. Tol. | Suffix |

| | |
|---|---|
| 2W | 450 V.DC |
| 2J | 630 V.DC |

| | |
|---|---|
| P | ±5 % |
| Q | ±10 % |

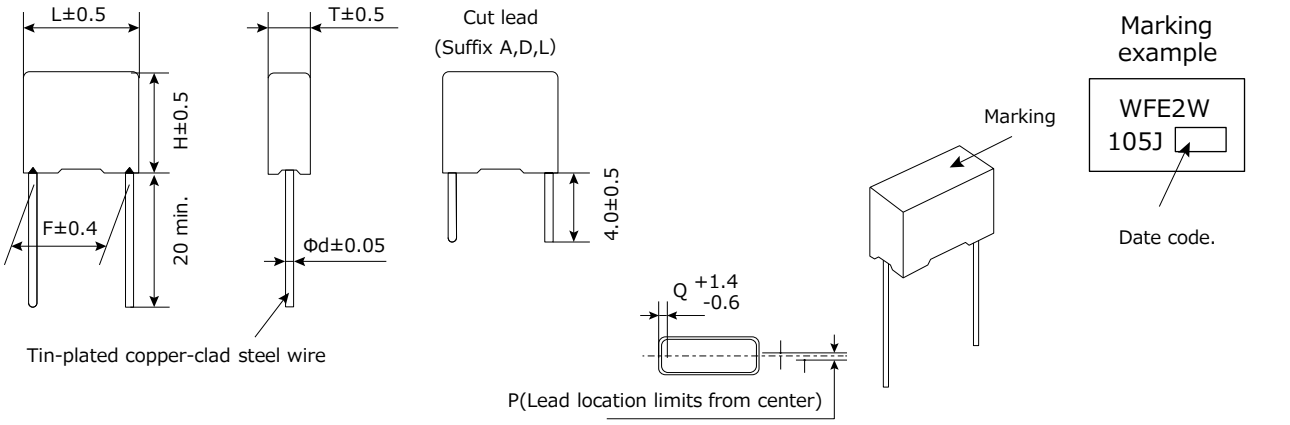
| Code | Lead form |
|---|---|
| 1, 5 ,8 | Straight |
| A,D,L | Cut lead |

## Specifications

| | | |
|---|---|---|
| Category temp. range (Including temperature-rise on unit surface) | −40 °C to +105 °C | |
| Rated voltage | 450 V.DC | Peak to peak voltage applied on the capacitor should be less than 240 Vp-p, and zero to peak voltage should be less than 450 Vo-p. (Derating of rated voltage by 1.25 %/°C at more than 85 °C) |
| | 630 V.DC | Peak to peak voltage applied on the capacitor should be less than 400 Vp-p, and zero to peak voltage should be less than 630 Vo-p. (Derating of rated voltage by 1.0%/°C at more than 85 °C) |
| Capacitance range | 450 V.DC | 0.1 μF to 4.7 μF |
| | 630 V.DC | 0.1 μF to 2.2 μF |
| Capacitance tolerance | ±5% (J), ±10 % (K) | |
| Dissipation factor (tan δ) | tan δ ≦ 0.1 % (20 °C, 1 kHz) | |
| Withstand voltage | Between terminals : Rated voltage (V.DC)×150 % 60 s | |
| Insulation resistance (IR) | 450 V.DC | C ≦ 0.33 μF : IR ≧ 30,000 MΩ<br>C > 0.33 μF : IR ≧ 10,000 MΩ･μF (20 °C, 100 V.DC, 60 s) |
| | 630 V.DC | C ≦ 0.33 μF : IR ≧ 9,000 MΩ<br>C > 0.33 μF : IR ≧ 3,000 MΩ･μF (20 °C, 500 V.DC, 60 s) |

✻ In case of applying voltage in alternating current (50 Hz or 60 Hz sine wave) to a capacitor with DC rated voltage, please refer to the page of “Permissible voltage (R.M.S) in alternating current corresponding to DC rated voltage”.

## Dimensions




## Rating · Dimensions

● Rated voltage : 450 V.DC, Capacitance tolerance : ±5 %(J), ± 10 %(K)

| Part No. | Cap. (μF) | Dimensions (mm) | | | | | | | Min. order q'ty | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | L | T | H | F | Φd | P | Q | Straight | Cut lead |
| ECWFE2W104□( ) | 0.10 | 13.0 | 5.0 | 10.5 | 10.0 | 0.6 | 0±0.8 | 1.5 | 1000 | 1000 |
| NEW **ECWFE2W104P( )** | 0.10 | 17.5 | 5.0 | 10.5 | 15.0 | 0.6 | 0±0.8 | 1.25 | | |
| NEW **ECWFE2W104Q( )** | | | | | | | | | | |
| ECWFE2W154□( ) | 0.15 | 13.0 | 5.0 | 10.5 | 10.0 | 0.6 | 0±0.8 | 1.5 | | |
| NEW **ECWFE2W154P( )** | 0.15 | 17.5 | 5.0 | 10.5 | 15.0 | 0.6 | 0±0.8 | 1.25 | | |
| NEW **ECWFE2W154Q( )** | | | | | | | | | | |
| ECWFE2W224□( ) | 0.22 | 13.0 | 6.0 | 12.0 | 10.0 | 0.6 | 0±0.8 | 1.5 | | |
| NEW **ECWFE2W224P( )** | 0.22 | 17.5 | 5.0 | 10.5 | 15.0 | 0.6 | 0±0.8 | 1.25 | | |
| NEW **ECWFE2W224Q( )** | | | | | | | | | | |
| ECWFE2W334□( ) | 0.33 | 13.0 | 6.0 | 12.0 | 10.0 | 0.6 | 0±0.8 | 1.5 | | |
| NEW **ECWFE2W334P( )** | 0.33 | 17.5 | 5.0 | 10.5 | 15.0 | 0.6 | 0±0.8 | 1.25 | | |
| NEW **ECWFE2W334Q( )** | | | | | | | | | | |
| NEW **ECWFE2W474P( )** | 0.47 | 13.0 | 7.0 | 12.5 | 10.0 | 0.6 | 0±0.8 | 1.5 | | |
| NEW **ECWFE2W474Q( )** | | | | | | | | | | |
| ECWFE2W474□( ) | 0.47 | 17.5 | 6.0 | 11.5 | 15.0 | 0.8 | 0±0.8 | 1.3 | | |
| ECWFE2W684□( ) | 0.68 | 17.5 | 7.0 | 12.5 | 15.0 | 0.8 | 0±0.8 | 1.3 | | |
| ECWFE2W105□( ) | 1.0 | 17.5 | 7.0 | 12.5 | 15.0 | 0.8 | 0±0.8 | 1.3 | | |
| ECWFE2W155□( ) | 1.5 | 17.5 | 10.0 | 15.5 | 15.0 | 0.8 | 0±0.8 | 1.3 | | 600 |
| NEW **ECWFE2W155P( )** | 1.5 | 31.0 | 9.0 | 19.0 | 27.5 | 0.8 | 0±0.8 | 1.75 | 400 | 300 |
| NEW **ECWFE2W155Q( )** | | | | | | | | | | |
| ECWFE2W225□( ) | 2.2 | 17.5 | 10.0 | 15.5 | 15.0 | 0.8 | 0±0.8 | 1.3 | 1000 | 600 |
| NEW **ECWFE2W225P( )** | 2.2 | 31.0 | 11.0 | 21.0 | 27.5 | 0.8 | 0±0.8 | 1.75 | 200 | 200 |
| NEW **ECWFE2W225Q( )** | | | | | | | | | | |
| ECWFE2W335□( ) | 3.3 | 26.0 | 10.0 | 17.0 | 22.5 | 0.8 | 0±0.8 | 1.8 | 500 | 300 |
| NEW **ECWFE2W335P( )** | 3.3 | 31.0 | 13.0 | 23.0 | 27.5 | 0.8 | 0±0.8 | 1.75 | 200 | 200 |
| NEW **ECWFE2W335Q( )** | | | | | | | | | | |
| ECWFE2W475□( ) | 4.7 | 26.0 | 12.0 | 19.0 | 22.5 | 0.8 | 0±0.8 | 1.8 | 300 | 200 |
| NEW **ECWFE2W475P( )** | 4.7 | 31.0 | 15.5 | 25.5 | 27.5 | 0.8 | 0±0.8 | 1.75 | 150 | 100 |
| NEW **ECWFE2W475Q( )** | | | | | | | | | | |

∗□ : Capacitance tolerance code
∗( ) : Suffix for lead crimped

Note) Part number marked with bold is special lead space product.
The capacitance of 0.10 μF, 0.15 μF, 0.22 μF, 0.33 μF, 3.3 μF, 4.7 μF are "5" or "D"
The capacitance of 0.47 μF is "1" or "A"
The capacitance of 1.5 μF, 2.2 μF are "8" or "L"

## Rating · Dimensions

● Rated voltage : 630 V.DC, Capacitance tolerance : ±5 %(J), ± 10 %(K)

| Part No. | Cap. (μF) | Dimensions (mm) | | | | | | | Min. order q'ty | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | L | T | H | F | Φd | P | Q | Straight | Cut lead |
| ECWFE2J104□( ) | 0.10 | 17.5 | 5.0 | 10.5 | 15.0 | 0.6 | 0±0.8 | 1.3 | 1000 | 1000 |
| NEW **ECWFE2J104P( )** | 0.10 | 26.0 | 6.0 | 13.0 | 22.5 | 0.8 | 0±0.8 | 1.75 | 900 | 700 |
| NEW **ECWFE2J104Q( )** | | | | | | | | | | |
| ECWFE2J154□( ) | 0.15 | 17.5 | 6.0 | 11.5 | 15.0 | 0.6 | 0±0.8 | 1.3 | 1000 | 1000 |
| NEW **ECWFE2J154P( )** | 0.15 | 26.0 | 6.0 | 13.0 | 22.5 | 0.8 | 0±0.8 | 1.75 | 900 | 700 |
| NEW **ECWFE2J154Q( )** | | | | | | | | | | |
| ECWFE2J224□( ) | 0.22 | 17.5 | 7.0 | 12.5 | 15.0 | 0.6 | 0±0.8 | 1.3 | 1000 | 1000 |
| NEW **ECWFE2J224P( )** | 0.22 | 26.0 | 6.0 | 13.0 | 22.5 | 0.8 | 0±0.8 | 1.75 | 900 | 700 |
| NEW **ECWFE2J224Q( )** | | | | | | | | | | |
| ECWFE2J334□( ) | 0.33 | 17.5 | 8.5 | 14.5 | 15.0 | 0.6 | 0±0.8 | 1.3 | 1000 | 800 |
| NEW **ECWFE2J334P( )** | 0.33 | 26.0 | 7.0 | 14.0 | 22.5 | 0.8 | 0±0.8 | 1.75 | 700 | 500 |
| NEW **ECWFE2J334Q( )** | | | | | | | | | | |
| ECWFE2J474□( ) | 0.47 | 17.5 | 10.0 | 15.5 | 15.0 | 0.6 | 0±0.8 | 1.3 | 1000 | 600 |
| NEW **ECWFE2J474P( )** | 0.47 | 26.0 | 8.0 | 15.0 | 22.5 | 0.8 | 0±0.8 | 1.75 | 600 | 400 |
| NEW **ECWFE2J474Q( )** | | | | | | | | | | |
| ECWFE2J684□( ) | 0.68 | 17.5 | 11.0 | 17.5 | 15.0 | 0.6 | 0±0.8 | 1.3 | 600 | 600 |
| ECWFE2J105□( ) | 1.0 | 26.0 | 10.0 | 17.0 | 22.5 | 0.8 | 0±0.8 | 1.8 | 500 | 300 |
| NEW **ECWFE2J105P( )** | 1.0 | 31.0 | 9.0 | 19.0 | 27.5 | 0.8 | 0±0.8 | 1.75 | 400 | |
| NEW **ECWFE2J105Q( )** | | | | | | | | | | |
| ECWFE2J155□( ) | 1.5 | 26.0 | 12.0 | 19.0 | 22.5 | 0.8 | 0±0.8 | 1.8 | 300 | 200 |
| NEW **ECWFE2J155P( )** | 1.5 | 31.0 | 11.0 | 21.0 | 27.5 | 0.8 | 0±0.8 | 1.75 | 200 | |
| NEW **ECWFE2J155Q( )** | | | | | | | | | | |
| ECWFE2J225□( ) | 2.2 | 26.0 | 16.0 | 23.0 | 22.5 | 0.8 | 0±0.8 | 1.8 | | |
| NEW **ECWFE2J225P( )** | 2.2 | 31.0 | 13.0 | 23.0 | 27.5 | 0.8 | 0±0.8 | 1.75 | | |
| NEW **ECWFE2J225Q( )** | | | | | | | | | | |

∗□ : Capacitance tolerance code
∗( ) : Suffix for lead crimped

Note) Part Number marked with bold is Special Lead space product.
The capacitance of 0.10 μF, 0.15 μF, 0.22 μF, 0.33 μF, 0.47 μF, 1.0 μF, 1.5 μF, 2.2 μF are "5" or "D"

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