

#### **Metallized Polypropylene Film Capacitor**

**ECWFE** series

**UPGRADE** 



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

#### **Features**

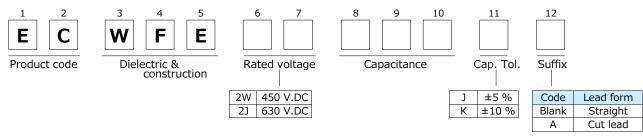
- Small size
- Excellent frequency characteristics
- Low loss
- Flame retardant plastic case and non-combustible resin
- Low hum sound noise
- RoHS compliant

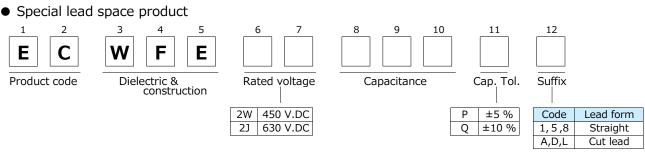
#### **Recommended applications**

- Active filter circuit
- High frequency circuit

#### **Explanation of part number**

Standard





#### **Specifications**

Category temp. range (Including temperature-rise on unit surface)	−40 °C to +105 °C						
Rated voltage	Peak to peak voltage applied on the capacitor should be less 240 Vp-p, and zero to peak voltage should be less than 450 (Derating of rated voltage by 1.25 %/°C at more than 85 °C)						
Kateu voitage	Peak to peak voltage applied on the capacitor should be less that 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					
Capacitance range	630 V.DC 0.1 μF to 2.2 μF						
Capacitance tolerance	±5% (J), ±10 % (K)						
Dissipation factor (tan $\delta$ )	$\tan \delta \leq 0.1 \% (20  ^{\circ}\text{C}, 1  \text{kHz})$						
Withstand voltage	Between terminals : Rated voltage (V.DC)×150 % 60 s						
Inculation resistance (ID)	450 V.DC	$C ≤ 0.33 \mu\text{F} : IR ≥ 30,000 M\Omega$ $C > 0.33 \mu\text{F} : IR ≥ 10,000 M\Omega \cdot \mu\text{F}$ (20 °C, 100 V.DC, 60 s)					
Insulation resistance (IR)	630 V.DC	$C \le 0.33 \ \mu F : IR \ge 9,000 \ M\Omega$ $C > 0.33 \ \mu F : IR \ge 3,000 \ M\Omega \cdot \mu F$ (20 °C, 500 V.DC, 60 s)					

<sup>\*</sup> 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 Cut lead (Suffix A,D,L) Marking example WFE2W 105J Date code. P(Lead location limits from center) P(Lead location limits from center) Unit:mm

#### **Rating · Dimensions · Quantity**

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

	Doub No.	Cap.	Dimensions (mm)						Min. order Q'ty			
	Part No.	(μF)	L	T	Н	F	Фd	Р	Q	Straight	Cut lead	
	ECWFE2W104□()	0.10	13.0	5.0	10.5	10.0	0.6	0±0.8	1.5	1000	1000	
NE	<b>ECWFE2W104P()</b>	0.10	17.5	5.0	10.5	15.0	0.6	0±0.8	1.25			
NEV	ECWFE2W104Q()	0.10										
	ECWFE2W154□()	0.15	13.0	5.0	10.5	10.0	0.6	8.0±0	1.5			
NE	<b>ECWFE2W154P()</b>	0.15	17.5	5.0	10.5	15.0	0.6	0±0.8	1.25			
NEV	ECWFE2W154Q()	0.15	17.5	5.	10.5	15.0	0.0	0±0.0	1.25			
	ECWFE2W224□()	0.22	13.0	6.0	12.0	10.0	0.6	0±0.8	1.5			
_	ECWFE2W224P()	0.22	17.5	5.0	10.5	15.0	0.6	0±0.8	1.25			
NE	ECWFE2W224Q()											
_	ECWFE2W334□()	0.33	13.0	6.0	12.0	10.0	0.6	0±0.8	1.5			
_	<b>ECWFE2W334P()</b>	0.33	17.5	5.0	10.5	15.0	0.6	0±0.8	1.25			
_	<b>ECWFE2W334Q()</b>	0.55	17.5									
_	<b>ECWFE2W474P()</b>	0.47	13.0	7.0	12.5	10.0	0.6	0±0.8	1.5			
NE	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	
_	<b>ECWFE2W155P()</b>	1.5	1.5	31.0	9.0	19.0	27.5	0.8	0±0.8	1.75	400	300
NE	ECWFE2W155Q()											
_	ECWFE2W225□()	2.2	17.5	10.0	15.5	15.0	0.8	0±0.8	1.3	1000	600	
_	ECWFE2W225P()	2.2	31.0	11.0	21.0	27.5	0.8	0±0.8	1.75	200	200	
NEV	ECWFE2W225Q()		31.0									
	ECWFE2W335□()	3.3	26.0	10.0	17.0	22.5	0.8	0±0.8	1.8	500	300	
_	ECWFE2W335P()	3.3		13.0	23.0	27.5	0.8	0±0.8	1.75	200	200	
NEV	ECWFE2W335Q()											
_	ECWFE2W475□()	4.7	26.0	12.0	19.0	22.5	0.8	0±0.8	1.8	300	200	
_	ECWFE2W475P()	4.7	31.0	15.5	25.5	27.5	0.8	0±0.8	1.75	150	100	
NEV	ECWFE2W475Q()		51.0	13.3	25.5	27.15	0.0	0_0.0	11,75	150	100	

 $<sup>*\,\</sup>square$  : Capacitance tolerance code

Note) Part number marked with bold is special lead space product.

The capacitance of 0.10  $\mu$ F, 0.15  $\mu$ F, 0.22  $\mu$ F, 0.33  $\mu$ F, 3.3  $\mu$ F, 4.7  $\mu$ F are "5" or "D" The capacitance of 0.47  $\mu$ F is "1" or "A"

The capacitance of 1.5  $\mu F$ , 2.2  $\mu F$  are "8" or "L"

 $<sup>\</sup>ast$  ( ) : Suffix for lead crimped



#### **Plastic Film Capacitors**

#### Rating · Dimensions · Quantity

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

		Cap.	Dimensions (mm)							Min. order Q'ty				
	Part No.	(µF)	L	Т	Н	F	Φd	Р	Q		Cut lead			
-	ECWFE2J104□()	0.10	17.5	5.0	10.5	15.0	0.6	0±0.8	1.3	1000	1000			
NEV	ECWFE2J104P()	0.10	26.0	6.0	13.0	22.5	0.8	0±0.8	1.75	900	700			
NEV	ECWFE2J104Q()													
_	ECWFE2J154□()	0.15	17.5	6.0	11.5	15.0	0.6	0±0.8	1.3	1000	1000			
_	ECWFE2J154P()	0.15	26.0	6.0	13.0	22.5	0.8	0±0.8	1.75	900	700			
NEV	ECWFE2J154Q()													
_	ECWFE2J224□()	0.22	17.5	7.0	12.5	15.0	0.6	0±0.8	1.3	1000	1000			
-	ECWFE2J224P()	0.22	26.0	6.0	13.0	22.5	0.8	0±0.8	1.75	900	700			
NEV	ECWFE2J224Q()													
=	ECWFE2J334□()	0.33	17.5	8.5	14.5	15.0	0.6	0±0.8	1.3	1000	800			
_	<b>ECWFE2J334P()</b>	0.33	26.0	7.0	14.0	22.5	0.8	0±0.8	1.75	700	500			
NEV	<b>ECWFE2J334Q()</b>													
	ECWFE2J474□()	0.47	17.5	10.0	15.5	15.0	0.6	0±0.8	1.3	1000	600			
-	<b>ECWFE2J474P()</b>	0.47	26.0	8.0	15.0	22.5	0.8	0±0.8	1.75	600	400			
NEV	<b>ECWFE2J474Q()</b>													
-	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				
-	ECWFE2J105P()	1.0	31.0	9.0	19.0	27.5	0.8	0±0.8	1.75	400	300			
NEV	ECWFE2J105Q()													
_	ECWFE2J155□()	1.5	26.0	12.0	19.0	22.5	0.8	0±0.8	1.8	300				
-	ECWFE2J155P()	1.5		11.0	21.0	27.5	0.8	0±0.8	1.75	200	200			
NEV	ECWFE2J155Q()													
_ =	ECWFE2J225□()	2.2	26.0	16.0	23.0	22.5	0.8	0±0.8	1.8					
_	ECWFE2J225P()	2.2	2.2	2.2	2.2	31.0	13.0	23.0	27.5	0.8	0±0.8	1.75		
NEV	ECWFE2J225Q()		02.0	15.5	23.0	2,15	0.0	3-0.0	1., 5					

 $<sup>*\,\</sup>square$  : Capacitance tolerance code

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"

<sup>\*():</sup> Suffix for lead crimped

Note) Part Number marked with bold is Special Lead space product.



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