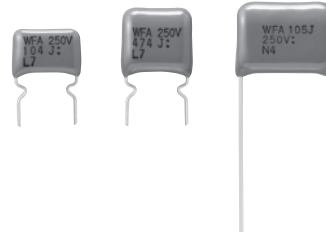


## Metalized Polypropylene Film Capacitor

Type : **ECWF(A)**

Non-inductive construction using metallized polypropylene film with flame retardant epoxy resin coating.



### Features

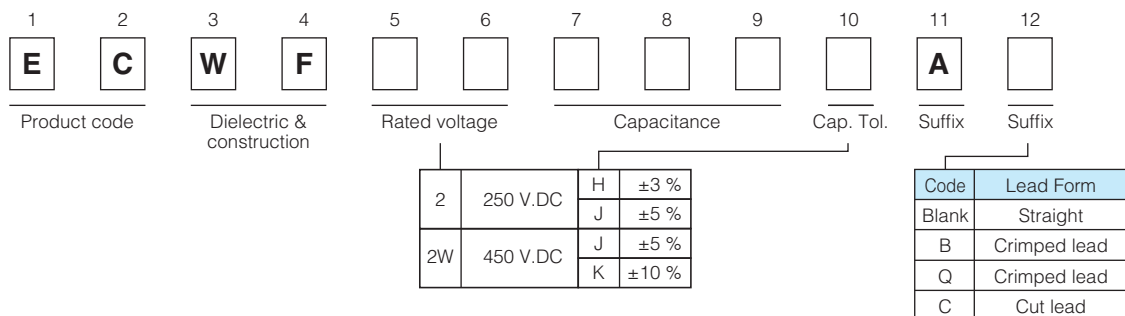
- Small size
- Excellent frequency characteristics
- Low loss
- Low Hum Sound Noise
- Flame retardant epoxy resin coating
- 85 degree C , 85 %RH , 500 V.DC , 500 hours (630 V.DC)
- RoHS directive compliant

### Recommended applications

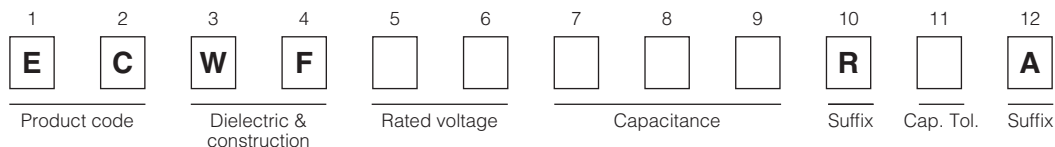
- 250 V.DC, 630 V.DC : High frequency and high current circuit
- 450 V.DC : Active filter circuit

### Explanation of part number

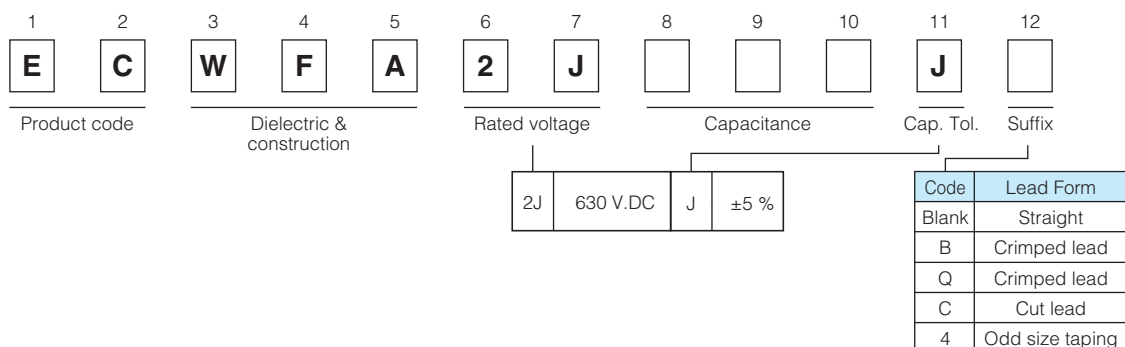
- 250 V.DC, 450 V.DC (Bulk)



- 250 V.DC, 450 V.DC (Odd size taping)



- 630 V.DC (Bulk, Odd size taping)

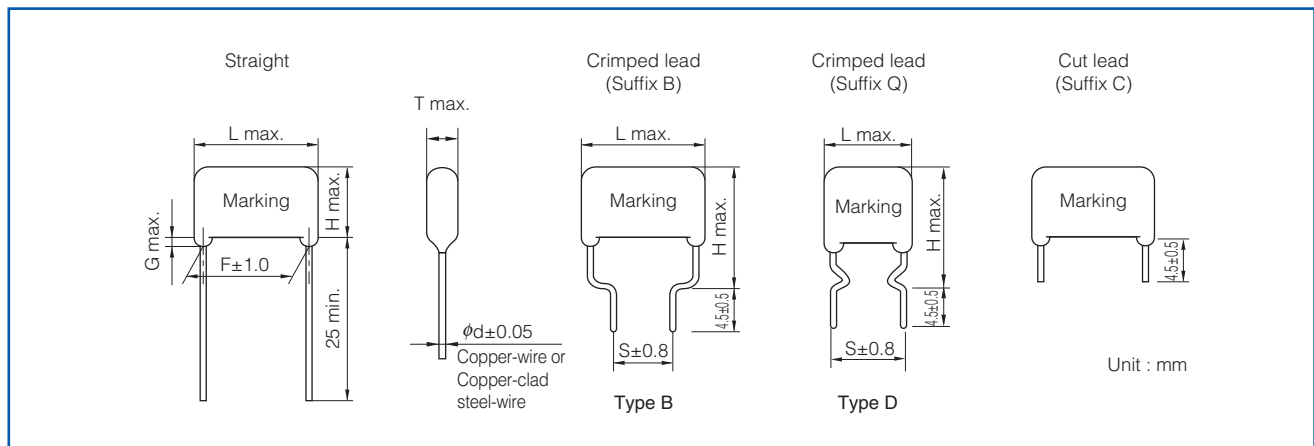


## Specifications

Category temp. range (Including temperature-rise on unit surface)	- 40 °C to +105 °C	
Rated voltage	250 V.DC	
	450 V.DC (Derating of rated voltage by 1.25%/°C at more than 85 °C) 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.	
	630 V.DC (Derating of rated voltage by 1.0%/°C at more than 85 °C)	
Capacitance range	250 V.DC	0.1 μF to 6.8 μF
	450 V.DC	0.1 μF to 4.7 μF
	630 V.DC	0.1 μF to 2.2 μF
Capacitance tolerance	250 V.DC	±3 % (H), ±5 % (J)
	450 V.DC	±5 % (J), ±10 % (K)
	630 V.DC	±5 % (J)
Dissipation factor (tan δ)	tan δ ≤ 0.1 % (20 °C, 1 kHz)	
Withstand voltage	Between terminals : Rated volt. (V.DC) × 150 %, 60 s	
Insulation resistance (IR)	250 V.DC	C ≤ 0.33 μF : IR ≥ 9000 MΩ C > 0.33 μF : IR ≥ 3000 MΩ · μF (20 °C, 100 V.DC, 60 s)
	450 V.DC	C ≤ 0.33 μF : IR ≥ 30000 MΩ C > 0.33 μF : IR ≥ 10000 MΩ · μF (20 °C, 100 V.DC, 60 s)
	630 V.DC	C ≤ 0.33 μF : IR ≥ 9000 MΩ C > 0.33 μF : IR ≥ 3000 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

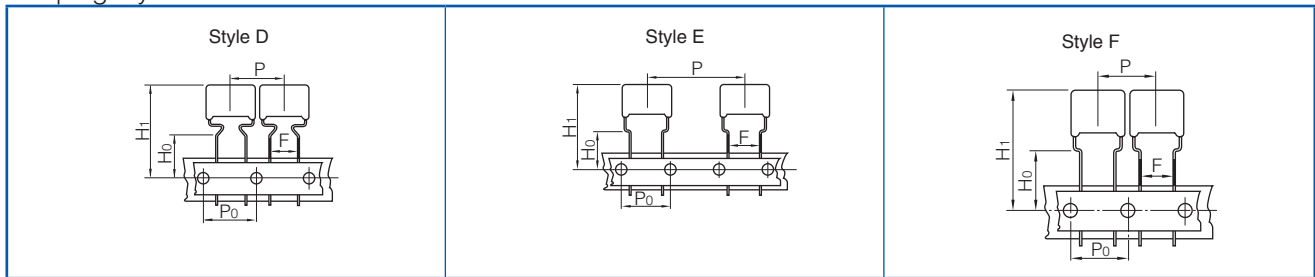


## Packaging specifications for bulk package

- Packing quantity : 100 pcs./bag

## Taping specifications for automatic insertion

### ● Taping style



\* Refer to the page of taping specifications.

### ● Packaging specifications

Type	Rated voltage (V.DC)	Capacitance range (μF)	Taping style								Packing	suffix
			AD	AS	B	C	D	E	F			
ECWF(A)	250	0.10 to 0.47					○				Ammo	R( ) A
		0.56 to 3.9						○				
	450	0.10 to 0.47							○			
		0.56 to 2.2							○			
	630	0.10 to 0.68							○			
									○			

### ● Lead spacing

Style	Lead spacing
D	7.5 mm
E	7.5 mm
F	7.5 mm

## Rating · Dimensions · Quantity

● Rated voltage : 250 V.DC, Capacitance tolerance : ± 3 % (H), ± 5 % (J)

Part No.	Cap. (μF)	Dimensions (mm)										Min. order Q'ty	
		L max.	T max.	H max.			F	S		G max.	φd	Taping 7.5 mm	Bulk Straight · Crimped lead
				Straight	Crimped lead (Suffix B)	Crimped lead (Suffix Q)		Straight	Crimped lead (Suffix B)				
ECWF2104□A( )	0.10	13.0	5.0	-	14.1	14.1	-	7.5	10.0	-	0.6	1300	500
ECWF2124□A( )	0.12	13.0	5.3	-	14.4	14.4	-	7.5	10.0	-	0.6	1200	
ECWF2154□A( )	0.15	13.0	5.6	-	14.7	14.7	-	7.5	10.0	-	0.6	1100	
ECWF2184□A( )	0.18	13.0	5.9	-	15.1	15.1	-	7.5	10.0	-	0.6	1000	
ECWF2224□A( )	0.22	13.0	6.3	-	15.4	15.4	-	7.5	10.0	-	0.6	900	
ECWF2274□A( )	0.27	13.0	6.8	-	15.9	15.9	-	7.5	10.0	-	0.6	800	
ECWF2334□A( )	0.33	13.0	7.3	-	16.4	16.4	-	7.5	10.0	-	0.6	700	
ECWF2394□A( )	0.39	13.0	7.8	-	16.9	16.9	-	7.5	10.0	-	0.6	600	
ECWF2474□A( )	0.47	13.0	8.4	-	17.6	17.6	-	7.5	10.0	-	0.6	500	
ECWF2564□A( )	0.56	18.1	6.9	-	16.4	18.4	-	7.5	15.0	-	0.8	400	
ECWF2684□A( )	0.68	18.1	7.4	-	17.0	19.0	-	7.5	15.0	-	0.8	300	
ECWF2824□A( )	0.82	18.1	8.0	-	17.6	19.6	-	7.5	15.0	-	0.8	200	
ECWF2105□A( )	1.0	18.1	8.5	13.3	18.3	20.3	15.0	7.5	15.0	1.5	0.8	100	
ECWF2125□A( )	1.2	18.8	9.5	14.6	19.6	21.6	15.0	7.5	15.0	1.5	0.8	50	
ECWF2155□A( )	1.5	18.8	10.5	15.6	20.6	22.6	15.0	7.5	15.0	1.5	0.8	20	
ECWF2185□A( )	1.8	18.8	11.4	16.5	21.5	23.5	15.0	7.5	15.0	1.5	0.8	10	
ECWF2225□A( )	2.2	18.8	12.6	17.6	22.6	24.6	15.0	7.5	15.0	1.5	0.8	5	
ECWF2275□A( )	2.7	23.8	11.4	17.2	22.2	24.2	20.0	12.5	20.0	1.5	0.8	3	
ECWF2335□A( )	3.3	23.8	12.5	18.3	23.3	25.3	20.0	12.5	20.0	1.5	0.8	2	
ECWF2395□A( )	3.9	23.8	13.5	19.3	24.3	26.3	20.0	12.5	20.0	1.5	0.8	1	
ECWF2475□A( )	4.7	23.8	14.8	20.6	25.6	27.6	20.0	12.5	20.0	1.5	0.8	1	
ECWF2565□A( )	5.6	23.8	16.2	21.9	26.9	28.9	20.0	12.5	20.0	1.5	0.8	1	
ECWF2685□A( )	6.8	23.8	17.8	23.5	28.5	30.5	20.0	12.5	20.0	1.5	0.8	1	

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

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

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)										Min. order Q'ty	
		L max.	T max.	H max.			F	S		G max.	$\phi$ d	Taping	Bulk
				Straight	Crimped lead (Suffix B)	Crimped lead (Suffix Q)		Crimped lead (Suffix B)	Crimped lead (Suffix Q)			7.5 mm	Straight · Crimped lead
ECWF2W104□A( )	0.10	13.0	5.1	-	14.3	14.3	-	7.5	10.0	1.5	0.6	1200	500
ECWF2W124□A( )	0.12	13.0	5.4	-	14.5	14.5	-	7.5	10.0	1.5	0.6		
ECWF2W154□A( )	0.15	13.0	5.7	-	14.9	14.9	-	7.5	10.0	1.5	0.6	1000	
ECWF2W184□A( )	0.18	13.0	6.1	-	15.2	15.2	-	7.5	10.0	1.5	0.6		
ECWF2W224□A( )	0.22	13.0	6.5	-	15.6	15.6	-	7.5	10.0	1.5	0.6	800	
ECWF2W274□A( )	0.27	13.0	7.0	-	16.1	16.1	-	7.5	10.0	1.5	0.6		
ECWF2W334□A( )	0.33	13.0	7.6	-	16.7	16.7	-	7.5	10.0	1.5	0.6	600	
ECWF2W394□A( )	0.39	13.0	8.1	-	17.2	17.2	-	7.5	10.0	1.5	0.6		
ECWF2W474□A( )	0.47	13.0	8.7	-	17.9	17.9	-	7.5	10.0	1.5	0.6	400	
ECWF2W564□A( )	0.56	18.1	7.0	11.5	16.5	18.5	15.0	7.5	15.0	1.5	0.8		
ECWF2W684□A( )	0.68	18.1	7.5	12.1	17.1	19.1	15.0	7.5	15.0	1.5	0.8	300	
ECWF2W824□A( )	0.82	18.1	8.2	12.7	17.7	19.7	15.0	7.5	15.0	1.5	0.8		
ECWF2W105□A( )	1.0	18.1	9.3	12.6	17.6	19.6	15.0	7.5	15.0	1.5	0.8	200	
ECWF2W125□A( )	1.2	18.8	9.7	14.7	19.7	21.7	15.0	7.5	15.0	1.5	0.8		
ECWF2W155□A( )	1.5	18.8	10.7	15.8	20.8	22.8	15.0	7.5	15.0	1.5	0.8	-	
ECWF2W185□A( )	1.8	18.8	11.6	16.7	21.7	23.7	15.0	7.5	15.0	1.5	0.8		
ECWF2W225□A( )	2.2	18.8	12.8	17.9	22.9	24.9	15.0	7.5	15.0	1.5	0.8	-	
ECWF2W275□A( )	2.7	26.3	10.6	16.5	21.5	23.5	22.5	15.0	22.5	1.5	0.8		
ECWF2W335□A( )	3.3	26.3	11.7	17.5	22.5	24.5	22.5	15.0	22.5	1.5	0.8	-	
ECWF2W395□A( )	3.9	26.3	12.6	18.4	23.4	25.4	22.5	15.0	22.5	1.5	0.8		
ECWF2W475□A( )	4.7	26.3	13.8	19.6	24.6	26.6	22.5	15.0	22.5	1.5	0.8		

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

● Rated voltage : 630 V.DC, Capacitance tolerance :  $\pm 5\%$ (J)

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)										Min. order Q'ty		
		L max.	T max.	H max.			F	S		G max.	$\phi$ d	Taping	Bulk	
				Straight	Crimped lead (Suffix B)	Crimped lead (Suffix Q)		Crimped lead (Suffix B)	Crimped lead (Suffix Q)			7.5 mm	Straight	Crimped lead
ECWFA2J104J( )	0.10	18.2	5.2	10.4	15.4	15.4	15.0	7.5	15.0	1.5	0.6	600	1000	
ECWFA2J124J( )	0.12	18.2	5.5	10.8	15.8	15.8	15.0	7.5	15.0	1.5	0.6			
ECWFA2J154J( )	0.15	18.2	6.0	11.2	16.2	16.2	15.0	7.5	15.0	1.5	0.6	500		
ECWFA2J184J( )	0.18	18.2	6.5	11.7	16.7	16.7	15.0	7.5	15.0	1.5	0.6			
ECWFA2J224J( )	0.22	18.2	7.1	12.3	17.3	17.3	15.0	7.5	15.0	1.5	0.6	400		
ECWFA2J274J( )	0.27	18.2	7.8	12.9	17.9	17.9	15.0	7.5	15.0	1.5	0.6			
ECWFA2J334J( )	0.33	18.2	8.5	13.6	18.6	18.6	15.0	7.5	15.0	1.5	0.6	300		
ECWFA2J394J( )	0.39	18.2	9.2	14.3	19.3	19.3	15.0	7.5	15.0	1.5	0.6			
ECWFA2J474J( )	0.47	18.2	10.0	15.1	20.1	20.1	15.0	7.5	15.0	1.5	0.6	200		
ECWFA2J564J( )	0.56	18.2	10.9	16.0	21.0	21.0	15.0	7.5	15.0	1.5	0.6			
ECWFA2J684J( )	0.68	18.2	12.0	17.1	22.1	22.1	15.0	7.5	15.0	1.5	0.6	800		
ECWFA2J824J( )	0.82	26.0	10.1	15.3	20.3	22.3	22.5	15.0	22.5	1.5	0.8			
ECWFA2J105J( )	1.0	26.0	11.1	16.2	21.2	23.2	22.5	15.0	22.5	1.5	0.8	-		
ECWFA2J125J( )	1.2	26.0	12.1	17.2	22.2	24.2	22.5	15.0	22.5	1.5	0.8			
ECWFA2J155J( )	1.5	26.0	13.5	18.6	23.6	25.6	22.5	15.0	22.5	1.5	0.8	600		
ECWFA2J185J( )	1.8	26.0	14.8	19.8	24.8	26.8	22.5	15.0	22.5	1.5	0.8			
ECWFA2J225J( )	2.2	26.0	16.3	21.4	26.4	28.4	22.5	15.0	22.5	1.5	0.8	400		500

\* ( ) : Suffix for lead crimped