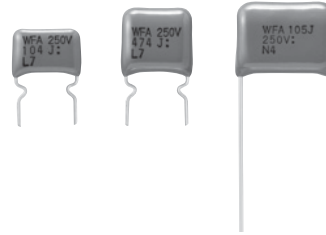


Metallized Polypropylene Film Capacitor

Type : **ECWF(A)**

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



Features

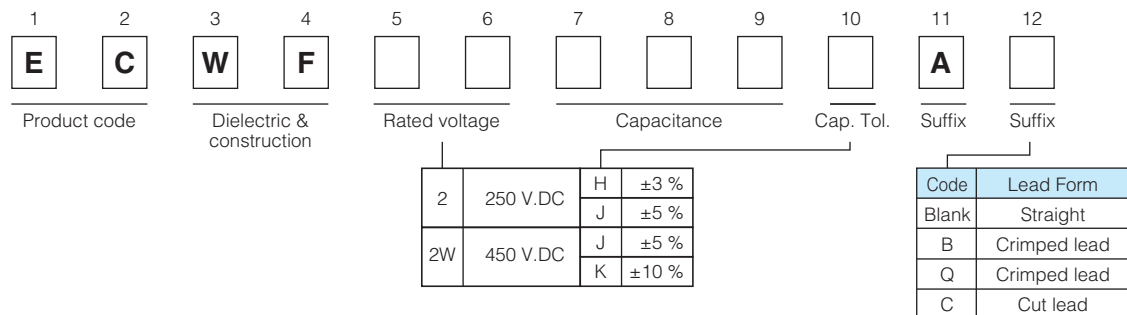
- Small size
- Excellent frequency characteristics
- Low loss
- Low Hum Sound Noise
- 85 degree C , 85 %RH , 500 V.DC , 500 hours (630 V.DC)
- RoHS directive compliant

Recommended applications

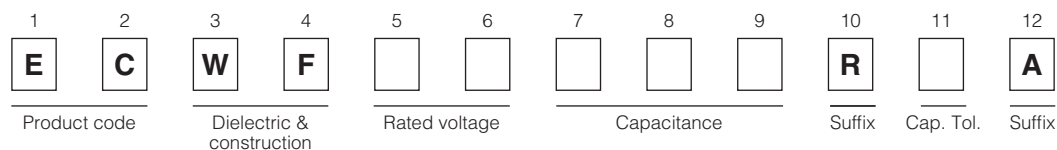
- 250 V.DC, 630 V.DC : High frequency and high current circuits
- 450 V.DC : Active filter circuits

Explanation of part number

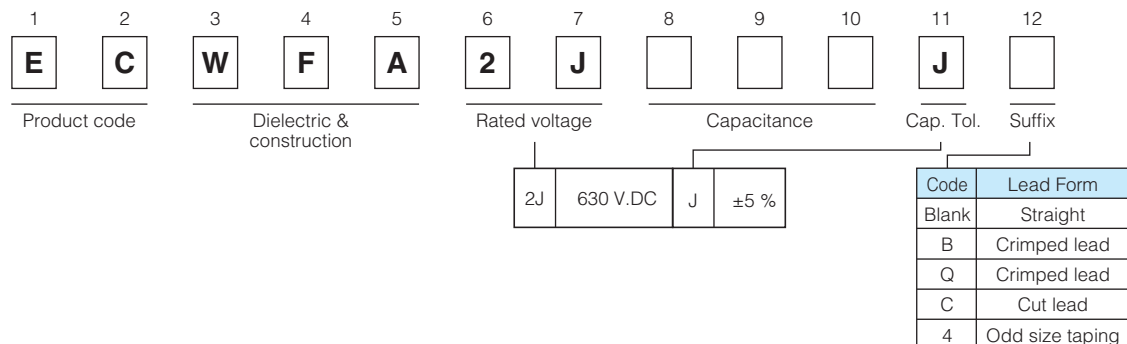
- 250 V.DC, 450 V.DC (Bulk)



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



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

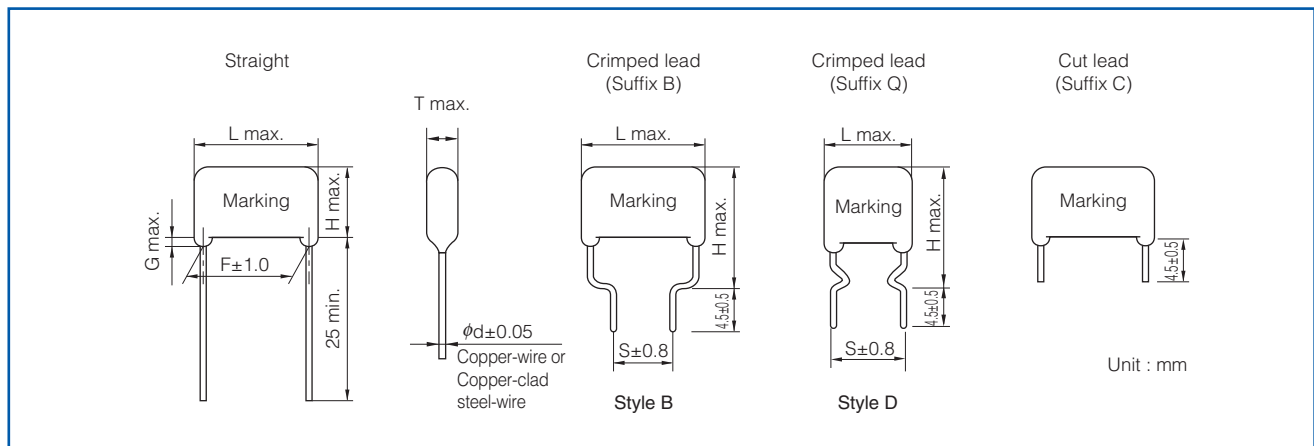


Specifications

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

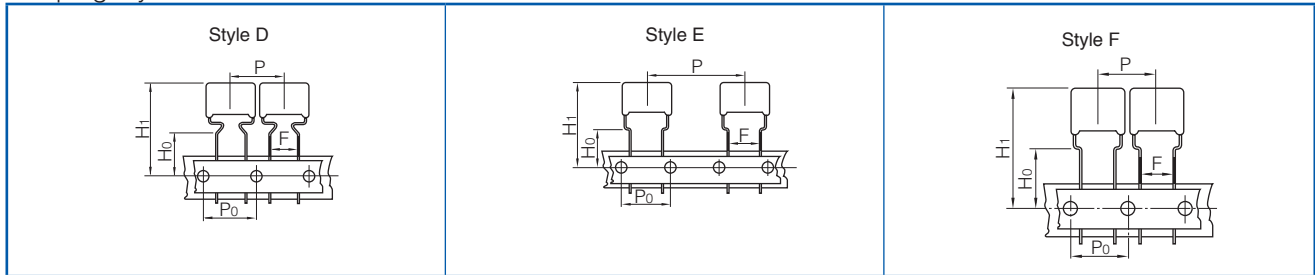


Packaging specifications for bulk package

- 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	Bulk
				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	700	
ECWF2474□A()	0.47	13.0	8.4	-	17.6	17.6	-	7.5	10.0	-	0.6	700	
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	400	
ECWF2824□A()	0.82	18.1	8.0	-	17.6	19.6	-	7.5	15.0	-	0.8	400	
ECWF2105□A()	1.0	18.1	8.5	13.3	18.3	20.3	15.0	7.5	15.0	1.5	0.8	300	
ECWF2125□A()	1.2	18.8	9.5	14.6	19.6	21.6	15.0	7.5	15.0	1.5	0.8	300	
ECWF2155□A()	1.5	18.8	10.5	15.6	20.6	22.6	15.0	7.5	15.0	1.5	0.8	300	
ECWF2185□A()	1.8	18.8	11.4	16.5	21.5	23.5	15.0	7.5	15.0	1.5	0.8	200	
ECWF2225□A()	2.2	18.8	12.6	17.6	22.6	24.6	15.0	7.5	15.0	1.5	0.8	200	
ECWF2275□A()	2.7	23.8	11.4	17.2	22.2	24.2	20.0	12.5	20.0	1.5	0.8	300	
ECWF2335□A()	3.3	23.8	12.5	18.3	23.3	25.3	20.0	12.5	20.0	1.5	0.8	200	
ECWF2395□A()	3.9	23.8	13.5	19.3	24.3	26.3	20.0	12.5	20.0	1.5	0.8	200	
ECWF2475□A()	4.7	23.8	14.8	20.6	25.6	27.6	20.0	12.5	20.0	1.5	0.8	200	
ECWF2565□A()	5.6	23.8	16.2	21.9	26.9	28.9	20.0	12.5	20.0	1.5	0.8	-	
ECWF2685□A()	6.8	23.8	17.8	23.5	28.5	30.5	20.0	12.5	20.0	1.5	0.8	-	

* □ : 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. (μ F)	Dimensions (mm)										Min. order Q'ty	
		L max.	T max.	H max.			F	S		G max.	ϕ d	Taping	Bulk
				Straight	Crimped lead (Suffix B)	Crimped lead (Suffix Q)		Crimped lead (Suffix B)	Crimped lead (Suffix Q)			7.5 mm	
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	1200	
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	1000	
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	800	
ECWF2W334□A()	0.33	13.0	7.6	-	16.7	16.7	-	7.5	10.0	1.5	0.6	800	
ECWF2W394□A()	0.39	13.0	8.1	-	17.2	17.2	-	7.5	10.0	1.5	0.6	600	
ECWF2W474□A()	0.47	13.0	8.7	-	17.9	17.9	-	7.5	10.0	1.5	0.6	600	
ECWF2W564□A()	0.56	18.1	7.0	11.5	16.5	18.5	15.0	7.5	15.0	1.5	0.8	400	
ECWF2W684□A()	0.68	18.1	7.5	12.1	17.1	19.1	15.0	7.5	15.0	1.5	0.8	400	
ECWF2W824□A()	0.82	18.1	8.2	12.7	17.7	19.7	15.0	7.5	15.0	1.5	0.8	300	
ECWF2W105□A()	1.0	18.1	9.3	12.6	17.6	19.6	15.0	7.5	15.0	1.5	0.8	300	
ECWF2W125□A()	1.2	18.8	9.7	14.7	19.7	21.7	15.0	7.5	15.0	1.5	0.8	300	
ECWF2W155□A()	1.5	18.8	10.7	15.8	20.8	22.8	15.0	7.5	15.0	1.5	0.8	200	
ECWF2W185□A()	1.8	18.8	11.6	16.7	21.7	23.7	15.0	7.5	15.0	1.5	0.8	200	
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. (μ F)	Dimensions (mm)										Min. order Q'ty		
		L max.	T max.	H max.			F	S		G max.	ϕ 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	1000
ECWFA2J124J()	0.12	18.2	5.5	10.8	15.8	15.8	15.0	7.5	15.0	1.5	0.6	600		
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	500		
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	400		
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	300		
ECWFA2J474J()	0.47	18.2	10.0	15.1	20.1	20.1	15.0	7.5	15.0	1.5	0.6	300		
ECWFA2J564J()	0.56	18.2	10.9	16.0	21.0	21.0	15.0	7.5	15.0	1.5	0.6	200		
ECWFA2J684J()	0.68	18.2	12.0	17.1	22.1	22.1	15.0	7.5	15.0	1.5	0.6	200		
ECWFA2J824J()	0.82	26.0	10.1	15.3	20.3	22.3	22.5	15.0	22.5	1.5	0.8	800		
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	600		
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	500		
ECWFA2J225J()	2.2	26.0	16.3	21.4	26.4	28.4	22.5	15.0	22.5	1.5	0.8	400		

* () : Suffix for lead crimped