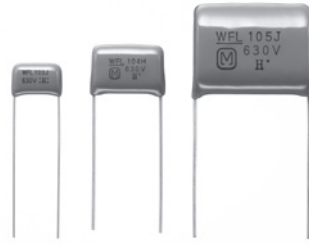


Metallized Polypropylene Film Capacitor

Series : **ECWF(L)**

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



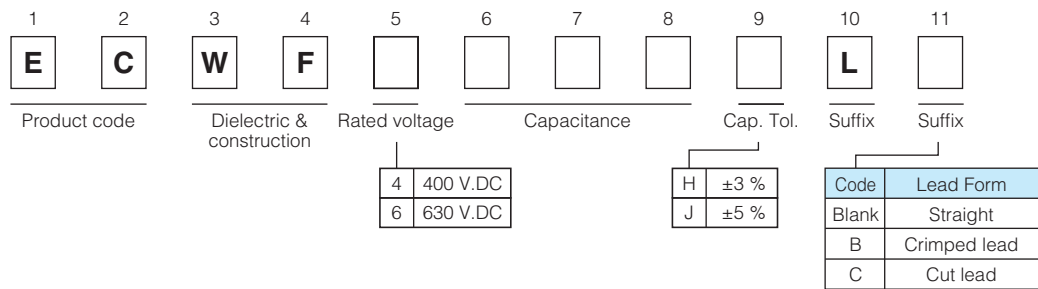
Features

- Small size
- Excellent frequency characteristics
- Low loss
- Flame retardant epoxy resin coating
- 85 °C, 85 % RH, W.V. × 1.0 for 500 hours
- RoHS directive compliant

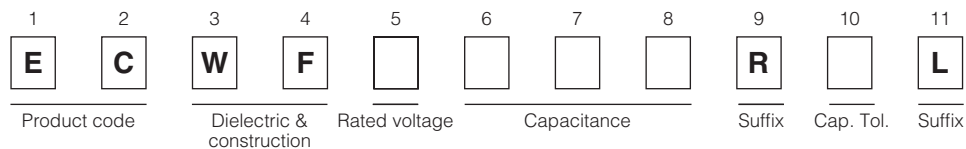
Recommended applications

- Lighting
- High frequency and high current circuit

Explanation of part number



- Odd size taping

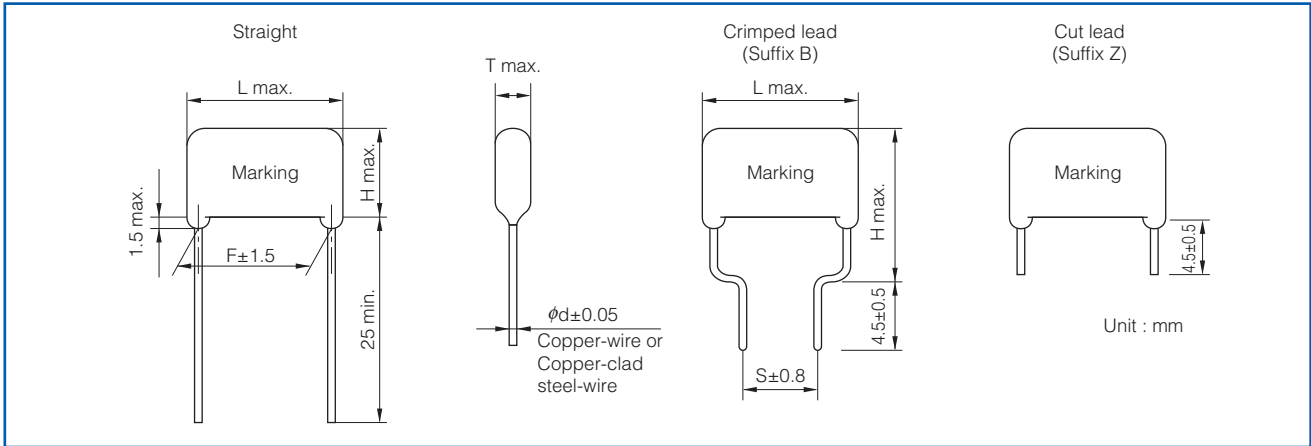


Specifications

Category temp. range (Including temperature-rise on unit surface)	- 40 °C to +105 °C	
Rated voltage	400 V.DC, 630 V.DC	
Capacitance range	400 V.DC	0.022 μF to 2.4 μF
	630 V.DC	0.010 μF to 1.3 μF
Capacitance tolerance	±3 % (H), ±5 % (J)	
Dissipation factor (tan δ)	tan δ ≤ 0.05 % (20 °C, 1 kHz) tan δ ≤ 0.20 % (20 °C, 10 kHz)	
Withstand voltage	Between terminals : Rated volt. (V.DC) × 150 %, 60 s	
Insulation resistance (IR)	C ≤ 0.33 μF : IR ≥ 9000 MΩ (20 °C, 100 V.DC, 60 s for 400 V.DC)	
	C > 0.33 μF : IR ≥ 3000 MΩ · μF (20 °C, 500 V.DC, 60 s for 630 V.DC)	

* 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

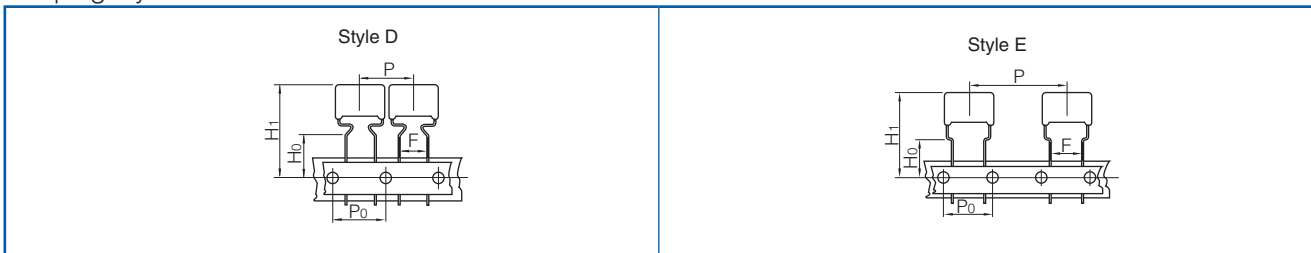


Packaging specifications for bulk package

- Packing quantity : 100 pcs./bag

Taping specifications for automatic insertion

- Taping style



* Refer to the page of taping specifications.

- Packaging specifications

Series	Rated voltage (V.DC)	Capacitance range (μF)	Taping style					Packing	suffix
			AD	AB	C	D	E		
ECWF(L)	400	0.022 to 0.091				○		Ammo	R() L
		0.10 to 1.0					○	Ammo	R() L
	630	0.010 to 0.043				○		Ammo	R() L
		0.047 to 0.43					○	Ammo	R() L

- Lead spacing

Style	Lead spacing
D	7.5 mm
E	7.5 mm

Rating · Dimensions · Quantity

● Rated voltage : 400 V.DC, Capacitance tolerance : ± 3 %(J), ±5 %(J)

Part No.	Cap. (μ F)	Dimensions (mm)							Min. order Q'ty			
		L max.	T max.	H max.		F		S	ϕ d	Taping	Bulk	
				Straight	Crimped lead	Straight	Crimped lead	7.5 mm		Straight	Crimped lead	
ECWF4223□L()	0.022	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100	500	500	
ECWF4243□L()	0.024	12.5	6.0	8.8	13.8	10.0	7.5	0.6				
ECWF4273□L()	0.027	12.5	6.2	9.0	14.0	10.0	7.5	0.6	1000			
ECWF4303□L()	0.030	12.5	6.4	9.3	14.3	10.0	7.5	0.6				
ECWF4333□L()	0.033	12.5	6.7	9.5	14.5	10.0	7.5	0.6	900			
ECWF4363□L()	0.036	12.5	5.7	8.4	13.4	10.0	7.5	0.6				
ECWF4393□L()	0.039	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100			
ECWF4433□L()	0.043	12.5	6.0	8.8	13.8	10.0	7.5	0.6				
ECWF4473□L()	0.047	12.5	6.2	9.0	14.0	10.0	7.5	0.6	1000			
ECWF4513□L()	0.051	12.5	6.4	9.2	14.2	10.0	7.5	0.6				
ECWF4563□L()	0.056	12.5	6.6	9.4	14.4	10.0	7.5	0.6	900			
ECWF4623□L()	0.062	13.0	6.8	9.6	14.6	10.0	7.5	0.8				
ECWF4683□L()	0.068	13.0	7.0	9.9	14.9	10.0	7.5	0.8	800			
ECWF4753□L()	0.075	13.0	7.3	10.1	15.1	10.0	7.5	0.8				
ECWF4823□L()	0.082	13.0	7.5	10.4	15.4	10.0	7.5	0.8	500			
ECWF4913□L()	0.091	13.0	7.8	10.7	15.7	10.0	7.5	0.8				
ECWF4104□L()	0.10	15.5	6.5	11.0	16.0	12.5	7.5	0.8	400			
ECWF4114□L()	0.11	15.5	6.8	11.3	16.3	12.5	7.5	0.8				
ECWF4124□L()	0.12	15.5	7.0	11.5	16.5	12.5	7.5	0.8	300			
ECWF4134□L()	0.13	15.5	7.2	11.8	16.8	12.5	7.5	0.8				
ECWF4154□L()	0.15	15.5	7.6	12.2	17.2	12.5	7.5	0.8	200			
ECWF4164□L()	0.16	15.5	7.8	12.4	17.4	12.5	7.5	0.8				
ECWF4184□L()	0.18	15.5	8.2	12.8	17.8	12.5	7.5	0.8	300			
ECWF4204□L()	0.20	15.5	8.6	13.3	18.3	12.5	7.5	0.8				
ECWF4224□L()	0.22	15.5	9.0	13.6	18.6	12.5	7.5	0.8	200			
ECWF4244□L()	0.24	18.0	8.3	13.0	18.0	15.0	10.0	0.8				
ECWF4274□L()	0.27	18.0	8.8	13.4	18.4	15.0	10.0	0.8	200			
ECWF4304□L()	0.30	18.0	9.2	13.9	18.9	15.0	10.0	0.8				
ECWF4334□L()	0.33	18.0	9.6	14.3	19.3	15.0	10.0	0.8	300			
ECWF4364□L()	0.36	18.0	9.9	14.7	19.7	15.0	10.0	0.8				
ECWF4394□L()	0.39	18.0	10.3	15.1	20.1	15.0	10.0	0.8	200			
ECWF4434□L()	0.43	18.0	10.7	15.6	20.6	15.0	10.0	0.8				
ECWF4474□L()	0.47	18.0	11.2	16.1	21.1	15.0	10.0	0.8	200			
ECWF4514□L()	0.51	20.5	10.3	16.8	21.8	17.5	12.5	0.8				
ECWF4564□L()	0.56	20.5	10.7	17.3	22.3	17.5	12.5	0.8	200			
ECWF4624□L()	0.62	20.5	11.3	17.9	22.9	17.5	12.5	0.8				
ECWF4684□L()	0.68	20.5	11.8	18.5	23.5	17.5	12.5	0.8	200			
ECWF4754□L()	0.75	20.5	12.3	19.1	24.1	17.5	12.5	0.8				
ECWF4824□L()	0.82	23.0	11.8	18.5	23.5	20.0	12.5	0.8	-			
ECWF4914□L()	0.91	23.0	12.4	19.2	24.2	20.0	12.5	0.8				
ECWF4105□L()	1.0	23.0	13.0	19.8	24.8	20.0	12.5	0.8	400			
ECWF4115□L()	1.1	23.0	13.6	20.5	25.5	20.0	12.5	0.8				
ECWF4125□L()	1.2	28.0	12.3	19.1	24.1	25.0	17.5	0.8	-			
ECWF4135□L()	1.3	28.0	12.8	19.6	24.6	25.0	17.5	0.8				
ECWF4155□L()	1.5	28.0	13.7	20.7	25.7	25.0	17.5	0.8	-			
ECWF4165□L()	1.6	28.0	14.2	21.2	26.2	25.0	17.5	0.8				
ECWF4185□L()	1.8	28.0	15.2	22.2	27.2	25.0	17.5	0.8	-			
ECWF4205□L()	2.0	28.0	16.0	23.1	28.1	25.0	17.5	0.8				
ECWF4225□L()	2.2	28.0	16.8	24.0	29.0	25.0	17.5	0.8	-			
ECWF4245□L()	2.4	28.0	17.5	24.8	29.8	25.0	17.5	0.8				

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

Rating · Dimensions · Quantity

● Rated voltage : 630 V.DC, Capacitance tolerance : ± 3 %(J), ±5 %(J)

Part No.	Cap. (μF)	Dimensions (mm)							Min. order Q'ty		
		L max.	T max.	H max.		F	S	φd	Taping 7.5 mm	Bulk	
				Straight	Crimped lead					Straight	Crimped lead
ECWF6103□L()	0.010	12.5	5.2	8.0	13.0	10.0	7.5	0.6	1200	500	500
ECWF6113□L()	0.011	12.5	5.4	8.2	13.2	10.0	7.5	0.6			
ECWF6123□L()	0.012	12.5	5.5	8.3	13.3	10.0	7.5	0.6			
ECWF6133□L()	0.013	12.5	5.6	8.5	13.5	10.0	7.5	0.6	1100		
ECWF6153□L()	0.015	12.5	5.9	8.7	13.7	10.0	7.5	0.6			
ECWF6163□L()	0.016	12.5	6.0	8.9	13.9	10.0	7.5	0.6			
ECWF6183□L()	0.018	12.5	6.2	9.1	14.1	10.0	7.5	0.6	1000		
ECWF6203□L()	0.020	12.5	6.5	9.3	14.3	10.0	7.5	0.6			
ECWF6223□L()	0.022	12.5	6.2	9.0	14.0	10.0	7.5	0.6			
ECWF6243□L()	0.024	12.5	6.4	9.2	14.2	10.0	7.5	0.6	900		
ECWF6273□L()	0.027	13.0	6.6	9.5	14.5	10.0	7.5	0.8			
ECWF6303□L()	0.030	13.0	6.9	9.7	14.7	10.0	7.5	0.8			
ECWF6333□L()	0.033	13.0	7.1	10.0	15.0	10.0	7.5	0.8	800		
ECWF6363□L()	0.036	13.0	7.3	10.2	15.2	10.0	7.5	0.8			
ECWF6393□L()	0.039	13.0	7.6	10.4	15.4	10.0	7.5	0.8			
ECWF6433□L()	0.043	13.0	7.9	10.7	15.7	10.0	7.5	0.8	500		
ECWF6473□L()	0.047	15.5	6.4	10.8	15.8	12.5	7.5	0.8			
ECWF6513□L()	0.051	15.5	6.6	11.0	16.0	12.5	7.5	0.8			
ECWF6563□L()	0.056	15.5	6.8	11.2	16.2	12.5	7.5	0.8	400		
ECWF6623□L()	0.062	15.5	7.1	11.5	16.5	12.5	7.5	0.8			
ECWF6683□L()	0.068	15.5	7.4	11.8	16.8	12.5	7.5	0.8			
ECWF6753□L()	0.075	15.5	7.7	12.1	17.1	12.5	7.5	0.8			
ECWF6823□L()	0.082	15.5	8.0	12.4	17.4	12.5	7.5	0.8			
ECWF6913□L()	0.091	15.5	8.3	12.7	17.7	12.5	7.5	0.8			
ECWF6104□L()	0.10	18.0	7.7	12.1	17.1	15.0	10.0	0.8	300		
ECWF6114□L()	0.11	18.0	8.0	12.4	17.4	15.0	10.0	0.8			
ECWF6124□L()	0.12	18.0	8.3	12.7	17.7	15.0	10.0	0.8			
ECWF6134□L()	0.13	18.0	8.5	13.0	18.0	15.0	10.0	0.8			
ECWF6154□L()	0.15	18.0	9.1	13.5	18.5	15.0	10.0	0.8			
ECWF6164□L()	0.16	18.0	9.3	13.8	18.8	15.0	10.0	0.8			
ECWF6184□L()	0.18	18.0	9.8	14.2	19.1	15.0	10.0	0.8	200		
ECWF6204□L()	0.20	18.0	10.3	14.7	19.7	15.0	10.0	0.8			
ECWF6224□L()	0.22	18.0	10.8	15.5	20.5	15.0	10.0	0.8			
ECWF6244□L()	0.24	18.0	11.2	15.9	20.9	15.0	10.0	0.8	300		
ECWF6274□L()	0.27	20.5	10.4	16.7	21.7	17.5	12.5	0.8			
ECWF6304□L()	0.30	20.5	10.9	17.2	22.2	17.5	12.5	0.8			
ECWF6334□L()	0.33	20.5	11.4	17.7	22.7	17.5	12.5	0.8	200		
ECWF6364□L()	0.36	20.5	11.9	18.5	23.5	17.5	12.5	0.8			
ECWF6394□L()	0.39	20.5	12.4	19.0	24.0	17.5	12.5	0.8			
ECWF6434□L()	0.43	20.5	13.0	19.5	24.5	17.5	12.5	0.8	-		
ECWF6474□L()	0.47	20.5	13.5	20.1	25.1	17.5	12.5	0.8			
ECWF6514□L()	0.51	28.0	11.1	17.3	22.3	25.0	17.5	0.8			
ECWF6564□L()	0.56	28.0	11.6	17.8	22.8	25.0	17.5	0.8			
ECWF6624□L()	0.62	28.0	12.1	18.7	23.7	25.0	17.5	0.8			
ECWF6684□L()	0.68	28.0	12.7	19.3	24.3	25.0	17.5	0.8			
ECWF6754□L()	0.75	28.0	13.3	19.9	24.9	25.0	17.5	0.8			
ECWF6824□L()	0.82	28.0	13.9	20.5	25.5	25.0	17.5	0.8			
ECWF6914□L()	0.91	28.0	14.6	21.2	26.2	25.0	17.5	0.8			
ECWF6105□L()	1.0	28.0	15.5	22.3	27.3	25.0	17.5	0.8			
ECWF6115□L()	1.1	28.0	16.3	23.0	28.0	25.0	17.5	0.8			
ECWF6125□L()	1.2	28.0	17.0	23.7	28.7	25.0	17.5	0.8			
ECWF6135□L()	1.3	28.0	17.6	24.4	29.4	25.0	17.5	0.8			

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

Guidelines and precautions regarding the technical information and use of our products described in this online catalog.

- If you want to use our products described in this online catalog for applications requiring special qualities or reliability, or for applications where the failure or malfunction of the products may directly jeopardize human life or potentially cause personal injury (e.g. aircraft and aerospace equipment, traffic and transportation equipment, combustion equipment, medical equipment, accident prevention, anti-crime equipment, and/or safety equipment), it is necessary to verify whether the specifications of our products fit to such applications. Please ensure that you will ask and check with our inquiry desk as to whether the specifications of our products fit to such applications use before you use our products.
- The quality and performance of our products as described in this online catalog only apply to our products when used in isolation. Therefore, please ensure you evaluate and verify our products under the specific circumstances in which our products are assembled in your own products and in which our products will actually be used.
- If you use our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you set up protection circuits and redundancy circuits in order to ensure safety of your equipment.
- The products and product specifications described in this online catalog are subject to change for improvement without prior notice. Therefore, please be sure to request and confirm the latest product specifications which explain the specifications of our products in detail, before you finalize the design of your applications, purchase, or use our products.
- The technical information in this online catalog provides examples of our products' typical operations and application circuits. We do not guarantee the non-infringement of third party's intellectual property rights and we do not grant any license, right, or interest in our intellectual property.
- If any of our products, product specifications and/or technical information in this online catalog is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially with regard to security and export control, shall be observed.

<Regarding the Certificate of Compliance with the EU RoHS Directive/REACH Regulations>

- The switchover date for compliance with the RoHS Directive/REACH Regulations varies depending on the part number or series of our products.
- When you use the inventory of our products for which it is unclear whether those products are compliant with the RoHS Directive/REACH Regulation, please select "Sales Inquiry" in the website inquiry form and contact us.

We do not take any responsibility for the use of our products outside the scope of the specifications, descriptions, guidelines and precautions described in this online catalog.