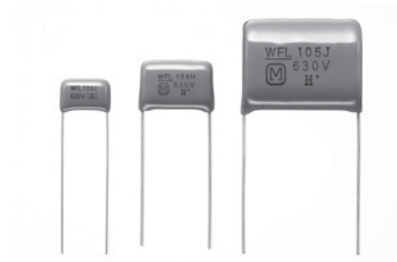


## Metalized Polypropylene Film Capacitor

Type : **ECWF(L)**



Designed for high frequency and current applications.

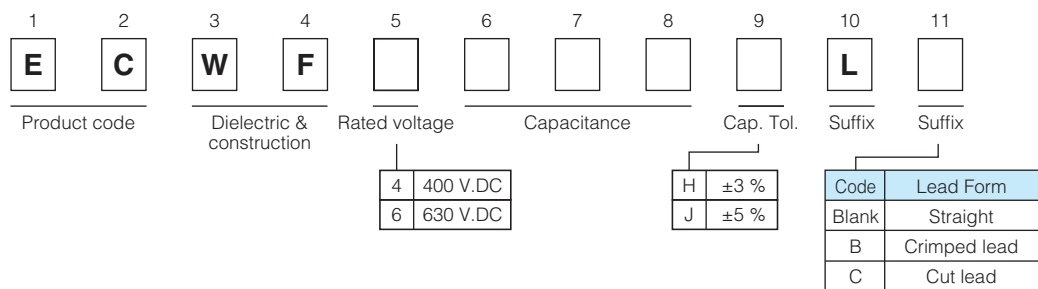
### Features

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

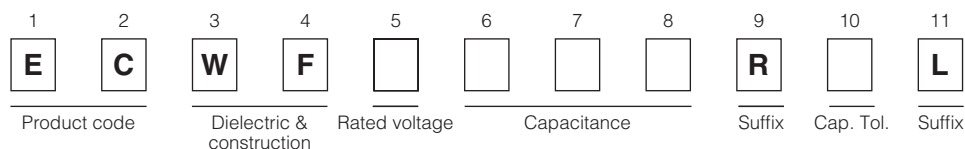
### Recommended applications

- Lighting
- High frequency and high current circuits (Televisions, Monitors, Power Supplies, etc.)

### Explanation of part number



- Odd size taping

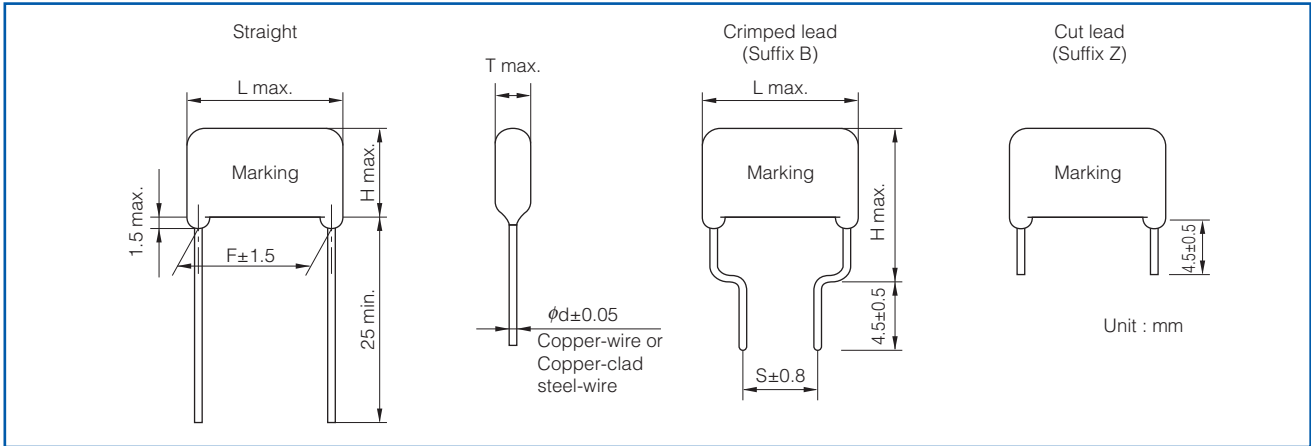


### Specifications

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

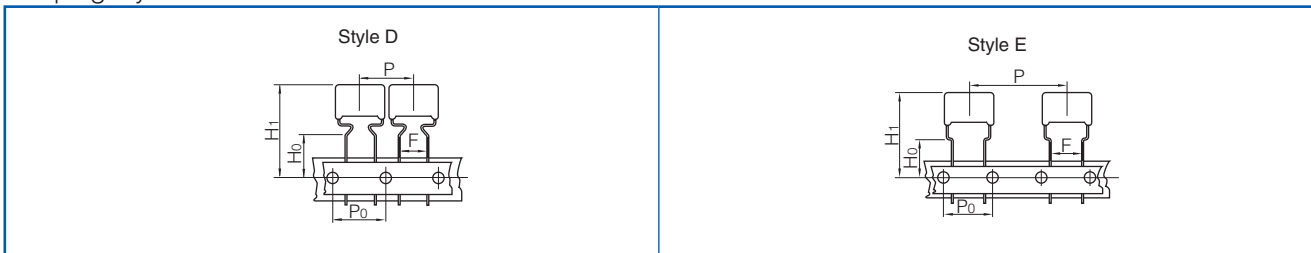


## Packaging specifications for bulk package

- Packing quantity : 100 pcs./bag

## Taping specifications for automatic insertion

- Taping style



\* Refer to the page of taping specifications.

- Packaging specifications

Type	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 % (K)

Part No.	Cap. (μF)	Dimensions (mm)							Min. order Q'ty	
		L max.	T max.	H max.		F	S	φd	Taping	Bulk
				Straight	Crimped lead				7.5 mm	
ECWF4223□L( )	0.022	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100	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	300	
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	200	
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	300	
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	300	
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	300	
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	200	
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. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty		
		L max.	T max.	H max.		F	S		$\phi$ d	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	
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