

Metallized Polypropylene Film Capacitor

Type: **ECWF(L)**

Designed for high frequency and current applications.

■Features

- Small size
- Excellent frequency characteristics
- Low loss
- RoHS directive compliant

■Recommended Applications

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

■Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11
E	C	W	F						L	
Products code	Dielectric & construction		Rated voltage		Capacitance			Cap. Tol.	Suffix	Suffix
				4	2W	6		H ±3 %		Blank
								J ±5 %		B
										Type 1
										Type 2
										Straight
										Crimped lead

●Explanation of Part Numbers for Odd Size Taping

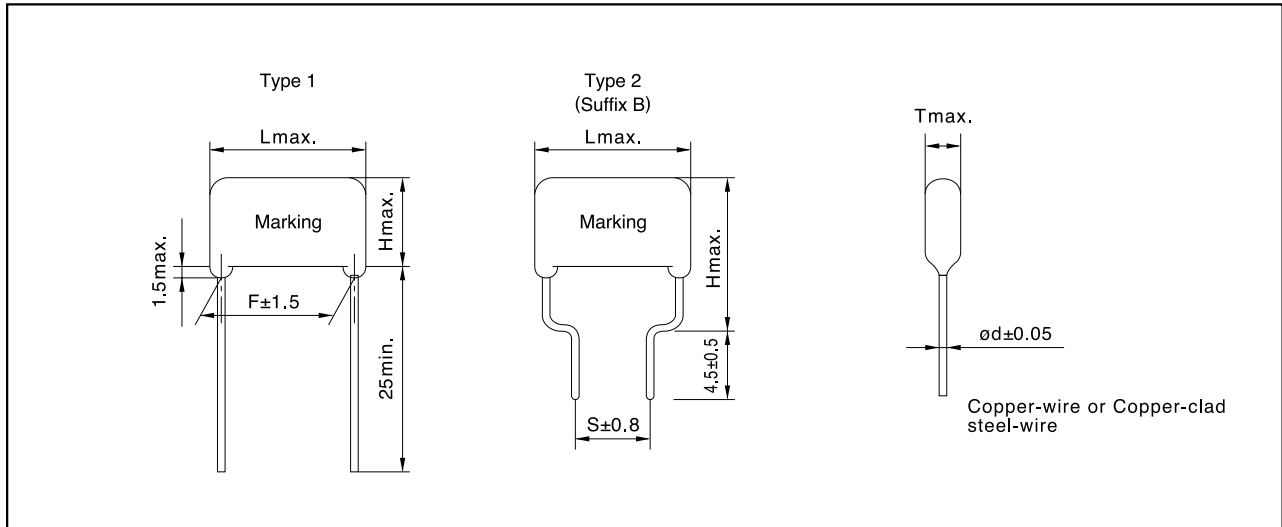
1	2	3	4	5	6	7	8	9	10	11
E	C	W	F					R		L
Products code	Dielectric & construction		Rated voltage		Capacitance			Suffix	Cap. Tol.	Suffix

■Specifications

Category temp. range (Including temperature-rise on unit surface)	-40 °C to +105 °C	
Rated voltage	400 VDC, 450 VDC, 630 VDC	
Capacitance range	400 VDC	0.022 uF to 2.4 uF
	450 VDC	0.022 uF to 1.0 uF
	630 VDC	0.010 uF to 1.3 uF
Capacitance tolerance	±3 %(H), ±5 %(J)	
Withstand voltage	Between terminals : Rated voltage(VDC)×150 % 60 s	
Dissipation factor (tanδ)	tanδ≤0.05% (20°C,1kHz)	
	tanδ≤0.20% (20°C,10kHz)	
Insulation resistance (IR)	C≤0.33 uF : IR≥9000 MΩ (20 °C, 100 VDC, 60 s for 400 VDC, 450 VDC)	
	C≤0.33 uF : IR≥3000 MΩ (20 °C, 500 VDC, 60 s for 630 VDC)	

* 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 in mm (not to scale)

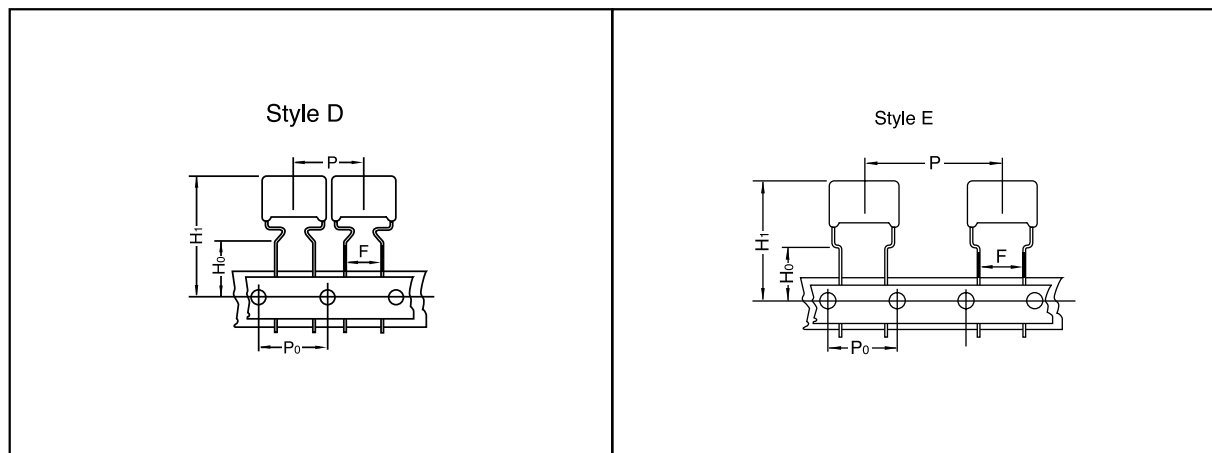


■Packaging Specification for Bulk Package

Packing quantity: 100 pcs./bag

■Taping Specifications for Automatic Insertion

●Taping style



※ Refer to the page of taping specifications.

●Packaging Specifications

Type	Rated voltage	Cap. Range (uF)	Taping Style						Packing
			AD	AS	B	C	D	E	
ECWF(L)	400 VDC	0.022 to 0.091					O		Ammo
	450 VDC	0.10 to 1.0						O	
	630 VDC	0.010 to 0.043						O	
		0.047 to 0.43						O	

●Lead Spacing

Style	Lead Spacing
D	7.5 mm
E	7.5 mm

■ Rating, Dimensions & Quantity/Ammo Box

● Type ECWF(L) Rated voltage : 400 VDC

Part No.	Cap. (μ F)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F		S	ød
				Type 1	Type 2	Type 1	Type 2		
ECWF4223□L()	0.022	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100
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	1100
ECWF4393□L()	0.039	12.5	5.8	8.6	13.6	10.0	7.5	0.6	
ECWF4433□L()	0.043	12.5	6.0	8.8	13.8	10.0	7.5	0.6	1000
ECWF4473□L()	0.047	12.5	6.2	9.0	14.0	10.0	7.5	0.6	
ECWF4513□L()	0.051	12.5	6.4	9.2	14.2	10.0	7.5	0.6	1000
ECWF4563□L()	0.056	12.5	6.6	9.4	14.4	10.0	7.5	0.6	
ECWF4623□L()	0.062	13.0	6.8	9.6	14.6	10.0	7.5	0.8	900
ECWF4683□L()	0.068	13.0	7.0	9.9	14.9	10.0	7.5	0.8	
ECWF4753□L()	0.075	13.0	7.3	10.1	15.1	10.0	7.5	0.8	800
ECWF4823□L()	0.082	13.0	7.5	10.4	15.4	10.0	7.5	0.8	
ECWF4913□L()	0.091	13.0	7.8	10.7	15.7	10.0	7.5	0.8	500
ECWF4104□L()	0.10	15.5	6.5	11.0	16.0	12.5	7.5	0.8	
ECWF4114□L()	0.11	15.5	6.8	11.3	16.3	12.5	7.5	0.8	400
ECWF4124□L()	0.12	15.5	7.0	11.5	16.5	12.5	7.5	0.8	
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	
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	
ECWF4204□L()	0.20	15.5	8.6	13.3	18.3	12.5	7.5	0.8	300
ECWF4224□L()	0.22	15.5	9.0	13.6	18.6	12.5	7.5	0.8	
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	
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	
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	
ECWF4434□L()	0.43	18.0	10.7	15.6	20.6	15.0	10.0	0.8	200
ECWF4474□L()	0.47	18.0	11.2	16.1	21.1	15.0	10.0	0.8	
ECWF4514□L()	0.51	20.5	10.3	16.8	21.8	17.5	12.5	0.8	300
ECWF4564□L()	0.56	20.5	10.7	17.3	22.3	17.5	12.5	0.8	
ECWF4624□L()	0.62	20.5	11.3	17.9	22.9	17.5	12.5	0.8	200
ECWF4684□L()	0.68	20.5	11.8	18.5	23.5	17.5	12.5	0.8	
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	—
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	

↑ Suffix for lead crimped or taped type
 — Capacitance tolerance code

■ Rating, Dimensions & Quantity/Ammo Box

● Type ECWF(L) Rated voltage : 450 VDC

Part No.	Cap. (μF)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F	S	ød	Ammo 7.5 mm
				Type 1	Type 2	Type 1	Type 2		
ECWF2W223□L()	0.022	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100
ECWF2W243□L()	0.024	12.5	6.0	8.8	13.8	10.0	7.5	0.6	
ECWF2W273□L()	0.027	12.5	6.2	9.0	14.0	10.0	7.5	0.6	1000
ECWF2W303□L()	0.030	12.5	6.4	9.3	14.3	10.0	7.5	0.6	
ECWF2W333□L()	0.033	12.5	6.7	9.5	14.5	10.0	7.5	0.6	900
ECWF2W363□L()	0.036	12.5	5.7	8.4	13.4	10.0	7.5	0.6	
ECWF2W393□L()	0.039	12.5	5.8	8.6	13.6	10.0	7.5	0.6	1100
ECWF2W433□L()	0.043	12.5	6.0	8.8	13.8	10.0	7.5	0.6	
ECWF2W473□L()	0.047	12.5	6.2	9.0	14.0	10.0	7.5	0.6	1000
ECWF2W513□L()	0.051	12.5	6.4	9.2	14.2	10.0	7.5	0.6	
ECWF2W563□L()	0.056	12.5	6.6	9.4	14.4	10.0	7.5	0.6	900
ECWF2W623□L()	0.062	13.0	6.8	9.6	14.6	10.0	7.5	0.8	
ECWF2W683□L()	0.068	13.0	7.0	9.9	14.9	10.0	7.5	0.8	800
ECWF2W753□L()	0.075	13.0	7.3	10.1	15.1	10.0	7.5	0.8	
ECWF2W823□L()	0.082	13.0	7.5	10.4	15.4	10.0	7.5	0.8	500
ECWF2W913□L()	0.091	13.0	7.8	10.7	15.7	10.0	7.5	0.8	
ECWF2W104□L()	0.10	15.5	6.5	11.0	16.0	12.5	7.5	0.8	400
ECWF2W114□L()	0.11	15.5	6.8	11.3	16.3	12.5	7.5	0.8	
ECWF2W124□L()	0.12	15.5	7.0	11.5	16.5	12.5	7.5	0.8	
ECWF2W134□L()	0.13	15.5	7.2	11.8	16.8	12.5	7.5	0.8	
ECWF2W154□L()	0.15	15.5	7.6	12.2	17.2	12.5	7.5	0.8	
ECWF2W164□L()	0.16	15.5	7.8	12.4	17.4	12.5	7.5	0.8	
ECWF2W184□L()	0.18	15.5	8.2	12.8	17.8	12.5	7.5	0.8	300
ECWF2W204□L()	0.20	15.5	8.6	13.3	18.3	12.5	7.5	0.8	
ECWF2W224□L()	0.22	15.5	9.0	13.6	18.6	12.5	7.5	0.8	
ECWF2W244□L()	0.24	18.0	8.3	13.0	18.0	15.0	10.0	0.8	
ECWF2W274□L()	0.27	18.0	8.8	13.4	18.4	15.0	10.0	0.8	
ECWF2W304□L()	0.30	18.0	9.2	13.9	18.9	15.0	10.0	0.8	
ECWF2W334□L()	0.33	18.0	9.6	14.3	19.3	15.0	10.0	0.8	
ECWF2W364□L()	0.36	18.0	9.9	14.7	19.7	15.0	10.0	0.8	
ECWF2W394□L()	0.39	18.0	10.3	15.1	20.1	15.0	10.0	0.8	200
ECWF2W434□L()	0.43	18.0	10.7	15.6	20.6	15.0	10.0	0.8	
ECWF2W474□L()	0.47	18.0	11.2	16.1	21.1	15.0	10.0	0.8	300
ECWF2W514□L()	0.51	20.5	10.3	16.8	21.8	17.5	12.5	0.8	
ECWF2W564□L()	0.56	20.5	10.7	17.3	22.3	17.5	12.5	0.8	200
ECWF2W624□L()	0.62	20.5	11.3	17.9	22.9	17.5	12.5	0.8	
ECWF2W684□L()	0.68	20.5	11.8	18.5	23.5	17.5	12.5	0.8	
ECWF2W754□L()	0.75	20.5	12.3	19.1	24.1	17.5	12.5	0.8	
ECWF2W824□L()	0.82	23.0	11.8	18.5	23.5	20.0	12.5	0.8	
ECWF2W914□L()	0.91	23.0	12.4	19.2	24.2	20.0	12.5	0.8	
ECWF2W105□L()	1.0	23.0	13.0	19.8	24.8	20.0	12.5	0.8	

↑ Suffix for lead crimped or taped type
 ↑ Capacitance tolerance code

■ Rating, Dimensions & Quantity/Ammo Box

● Type ECWF(L) Rated voltage : 630 VDC

Part No.	Cap. (μ F)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F		S	ød
				Type 1	Type 2	Type 1	Type 2		
ECWF6103□L()	0.01	12.5	5.2	8.0	13.0	10.0	7.5	0.6	1200
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	300
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	200
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	300
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	—

↑ Suffix for lead crimped or taped type
 ↑ Capacitance tolerance code