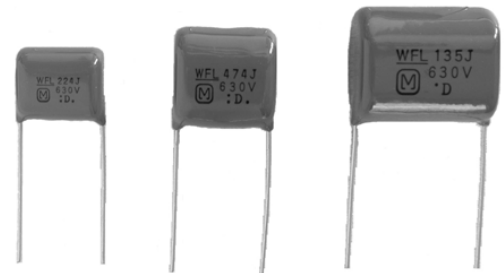


Metallized Polypropylene Film Capacitors

Type: **ECWF(L)**

Designed for applications where high frequency and high current are required.



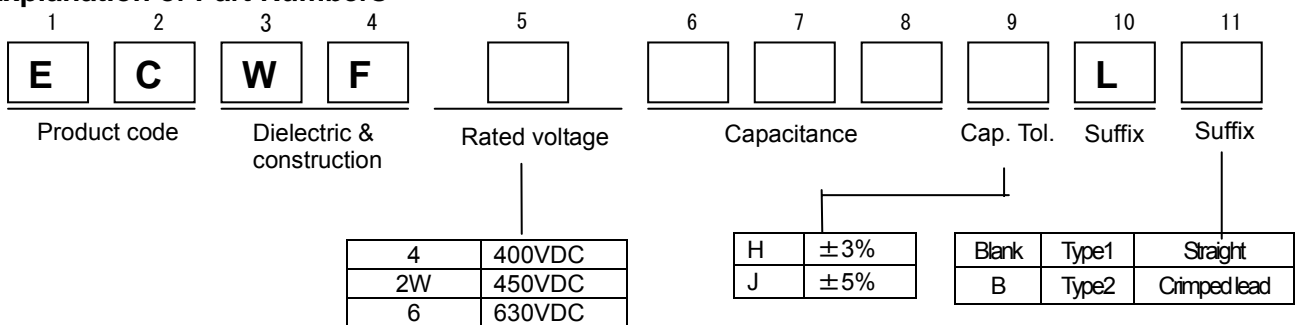
■ Features

- Small size
- Excellent frequency characteristics
- Low loss
- Flame retardant epoxy resin coating

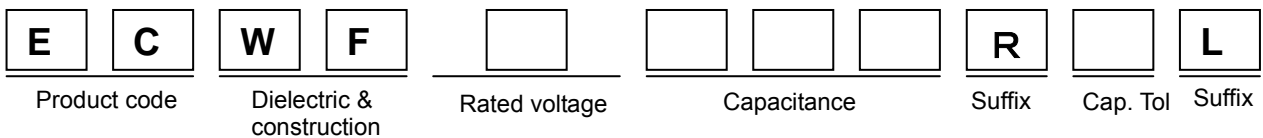
■ Recommended Applications

- Lighting
- High frequency and high current circuits(TV, display monitor, power supply, etc.)

■ Explanation of Part Numbers



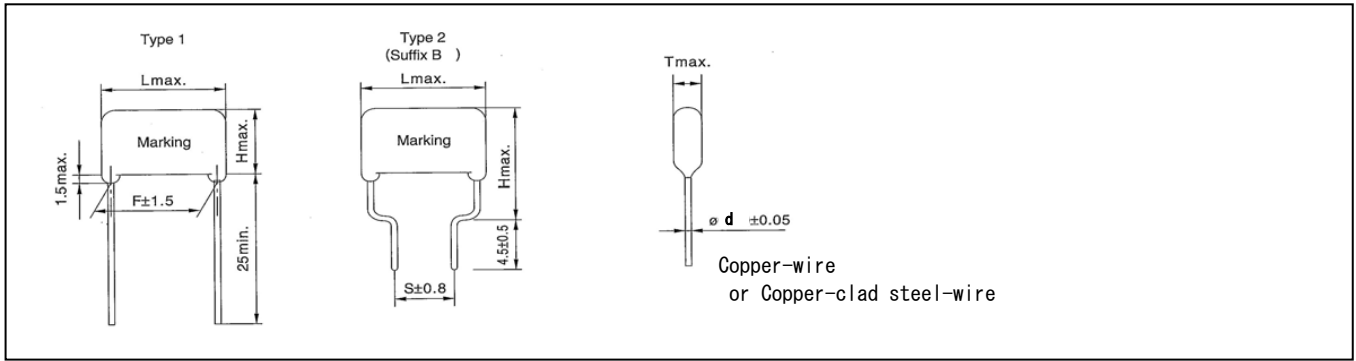
● Explanation of Part Numbers for Odd Size Taping



■ Specifications

Category temp. range	-40 to +105°C (However, 1.1uF or more of 450VDC are -40 to +85°C)	
Rated voltage	400VDC, 630VDC	
Capacitance range	400VDC	0.022uF to 2.4uF
	450VDC	0.022uF to 2.4uF
	630VDC	0.01uF to 1.3uF
Capacitance tolerance	±3%(H), ±5%(J)	
Withstand voltage	Between terminals: Rated voltage(VDC) × 150% 60s	
Dissipation factor	≤0.05% (20°C, 1kHz)	
	≤0.20% (20°C, 10kHz)	
Insulation resistance	C ≤ 0.33uF : 9000MΩ min.	(20°C, 100VDC, 60s for 400VDC, 450VDC)
	C > 0.33uF : 3000MΩ · uF min.	(20°C, 500VDC, 60s for 630VDC)

■Dimensions in mm (not to scale)

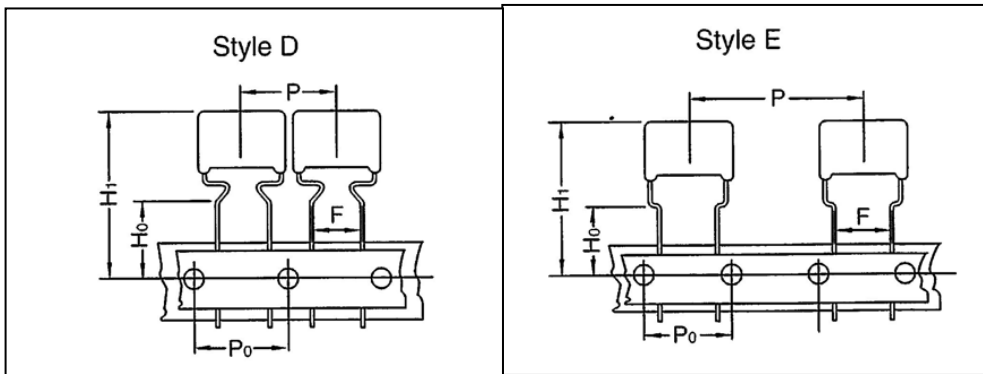


■Packaging Specification for Bulk Package

Packing quantity: 100pcs./bag

■Taping Specifications for Automatic Insertion

●Taping style



●Packaging Specifications

Type	Rated voltage	Cap. Range (uF)	Taping Style					Packing
			AD	AS	B	C	D	
ECWF(L)	400VDC	0.022 to 0.091					○	Ammo
	450VDC	0.1 to 1.0					○	
	630VDC	0.01 to 0.043					○	
		0.047 to 0.43					○	

●Lead Spacing

Style	Lead spacing
D	7.5 mm
E	7.5 mm

Rating, Dimension & Quantity / Ammo Box

●Type ECWF(L) Rated voltage : 400VDC

Part No.	Capacitance (uF)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F	S	φ d	Ammo
				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	
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	300
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	200
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	300
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	200
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, Dimension & Quantity / Ammo Box

●Type ECWF(L) Rated voltage : 450VDC

Part No.	Capacitance (uF)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F	S	φ d	Ammo
				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	300
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	200
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	200
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	300
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	200
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	300
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	200
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	300
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	200
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	300
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	200
ECWF2W115□L ()	1.1	23.0	13.6	20.5	25.5	20.0	12.5	0.8	
ECWF2W125□L ()	1.2	28.0	12.3	19.1	24.1	25.0	17.5	0.8	-
ECWF2W135□L ()	1.3	28.0	12.8	19.6	24.6	25.0	17.5	0.8	
ECWF2W155□L ()	1.5	28.0	13.7	20.7	25.7	25.0	17.5	0.8	-
ECWF2W165□L ()	1.6	28.0	14.2	21.2	26.2	25.0	17.5	0.8	
ECWF2W185□L ()	1.8	28.0	15.2	22.2	27.2	25.0	17.5	0.8	-
ECWF2W205□L ()	2.0	28.0	16.0	23.1	28.1	25.0	17.5	0.8	
ECWF2W225□L ()	2.2	28.0	16.8	24.0	29.0	25.0	17.5	0.8	-
ECWF2W245□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, Dimension & Quantity / Ammo Box

● Type ECWF(L) Rated voltage : 630VDC

Part No.	Capacitance (uF)	Dimensions (mm)							Quantity
		L ^{max}	T ^{max}	H ^{max}		F	S	φ d	Ammo
				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 ()	0.02	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 ()	0.03	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 ()	0.1	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 ()	0.2	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 ()	0.3	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