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Metallized Polypropylene Film Capacitor

Type: **ECWF(B)**

Designed for high current and frequency applications.

■Features

- Low-loss
- Excellent frequency characteristics
- Flame retardant epoxy resin coating
- RoHS directive compliant

■Recommended Applications

- 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						B	
Products code	Dielectric & construction		Rated voltage		Capacitance			Cap. Tol.	Suffix	Suffix
				2	250 VDC (150 Vrms, 250 Vo-p)			H	±3 %	Blank
				4	400 VDC (200 Vrms, 400 Vo-p)			J	±5 %	B
										Type 1
										Type 2
										Straight
										Crimped lead

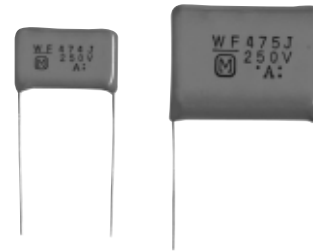
●Explanation of Part Numbers for Odd Size Taping

1	2	3	4	5	6	7	8	9	10	11
E	C	W	F					R		B
Products code	Dielectric & construction		Rated voltage		Capacitance			7.5 mm Crimped lead	Cap. Tol.	Suffix

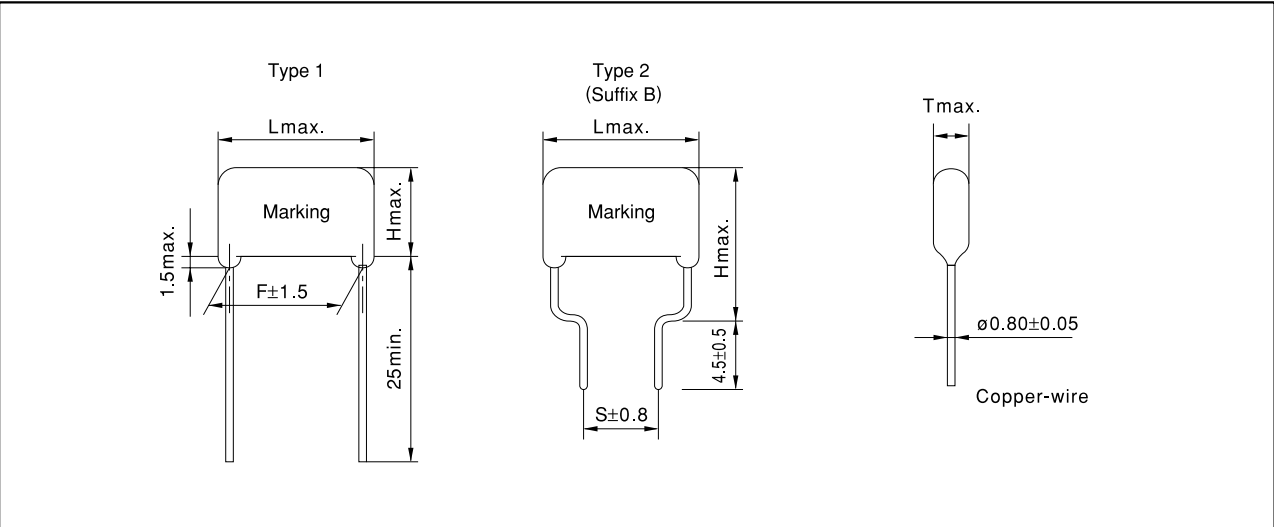
■Specifications

Category temp. range (Including temperature-rise on unit surface)	-25 °C to +105 °C
Rated voltage	250 VDC(150 Vrms, 250 Vo-p), 400 VDC(200 Vrms, 400 Vo-p) (Derating of rated voltage by 1.25 %/°C at more than 85 °C)
Capacitance range	0.022 µF to 4.7 µF(250 VDC), 0.022 µF to 1.6 µF(400 VDC)
Capacitance tolerance	±3 % (H), ±5 % (J)
Dissipation factor (tan δ)	0.068 µF to 0.51 µF : tan δ ≤ 0.05 % (20 °C, 1 kHz) 0.56 µF to 4.7 µF : tan δ ≤ 0.1 % (20 °C, 1 kHz) 0.068 µF to 4.7 µF : tan δ ≤ 0.2 % (20 °C, 10 kHz)
Withstand voltage	Between terminals : Rated volt. (VDC) × 150 % 60 s
Insulation resistance (IR)	C ≤ 0.33 µF : IR ≥ 9000 MΩ C > 0.33 µF : IR ≥ 3000 MΩ · µF (20 °C, 100 VDC, 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 in mm (not to scale)

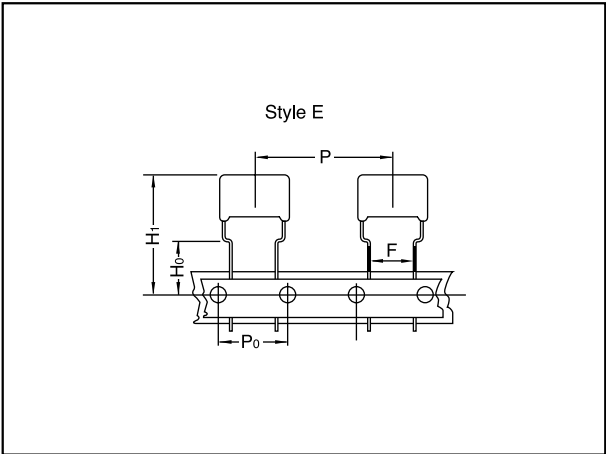


■Packaging Specifications for Bulk Package

Packing quantity: 100 pcs./bag

■Taping Specifications for Automatic Insertion

●Taping style



※Refer to the page of taping specifications.

●Packaging Specification

Type	Rated volt.	Cap. range (μ F)	Taping style						Packing
			AD	AS	B	C	D	E	
ECWF (B)	250 VDC	0.022 to 1.2						○	Ammo
	400 VDC	0.022 to 0.68						○	Ammo

●Lead Spacing

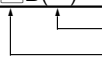
Style	Lead Spacing
E	7.5 mm

※See the column "Rating, Dimensions & Quantity Box" for packing quantity.

■ Rating & Dimensions

● Rated voltage : 250 VDC(150 Vrms, 250 Vo-p) Cap. tolerance : $\pm 3\%$ (H), $\pm 5\%$ (J)

Part No.	Cap. (μF)	Dimensions (mm)							Quantity
		L _{max}	T _{max}	H _{max}		F	S	ød	Ammo 7.5mm
				Type 1	Type 2	Type 1	Type 2		
ECWF2223□B()	0.022	15.5	5.5	12.5	17.5	12.5	7.5	0.80	500
ECWF2243□B()	0.024	15.5	5.5	12.5	17.5	12.5	7.5	0.80	
ECWF2273□B()	0.027	15.5	6.0	12.5	17.5	12.5	7.5	0.80	
ECWF2303□B()	0.030	15.5	6.0	13.0	17.5	12.5	7.5	0.80	
ECWF2333□B()	0.033	15.5	5.5	12.5	17.5	12.5	7.5	0.80	
ECWF2363□B()	0.036	15.5	6.0	12.5	17.5	12.5	7.5	0.80	
ECWF2393□B()	0.039	15.5	6.0	12.5	17.5	12.5	7.5	0.80	
ECWF2433□B()	0.043	15.5	6.0	13.0	17.5	12.5	7.5	0.80	
ECWF2473□B()	0.047	15.5	6.5	13.0	17.5	12.5	7.5	0.80	
ECWF2513□B()	0.051	15.5	6.5	13.5	17.5	12.5	7.5	0.80	
ECWF2563□B()	0.056	15.5	6.5	13.5	17.5	12.5	7.5	0.80	
ECWF2623□B()	0.062	15.5	7.0	14.0	17.5	12.5	7.5	0.80	
ECWF2683□B()	0.068	18.0	6.0	13.0	18.0	15.0	10.0	0.80	
ECWF2753□B()	0.075	18.0	6.5	13.0	18.0	15.0	10.0	0.80	
ECWF2823□B()	0.082	18.0	6.5	13.5	18.5	15.0	10.0	0.80	
ECWF2913□B()	0.091	18.0	7.0	13.5	18.5	15.0	10.0	0.80	
ECWF2104□B()	0.10	18.0	7.0	14.0	19.0	15.0	10.0	0.80	400
ECWF2114□B()	0.11	18.0	7.5	14.0	19.0	15.0	10.0	0.80	
ECWF2124□B()	0.12	18.0	7.5	14.5	19.5	15.0	10.0	0.80	
ECWF2134□B()	0.13	18.0	8.0	14.5	19.5	15.0	10.0	0.80	
ECWF2154□B()	0.15	18.0	8.5	15.0	20.0	15.0	10.0	0.80	500
ECWF2164□B()	0.16	18.0	6.0	13.0	18.0	15.0	10.0	0.80	
ECWF2184□B()	0.18	18.0	6.5	13.5	18.5	15.0	10.0	0.80	
ECWF2204□B()	0.20	18.0	7.0	13.5	18.5	15.0	10.0	0.80	
ECWF2224□B()	0.22	18.0	7.0	14.0	19.0	15.0	10.0	0.80	400
ECWF2244□B()	0.24	18.0	7.5	14.0	19.0	15.0	10.0	0.80	
ECWF2274□B()	0.27	18.0	8.0	14.5	19.5	15.0	10.0	0.80	
ECWF2304□B()	0.30	18.0	8.0	15.0	20.0	15.0	10.0	0.80	
ECWF2334□B()	0.33	18.0	8.5	15.0	20.0	15.0	10.0	0.80	300
ECWF2364□B()	0.36	18.0	8.5	15.0	20.0	15.0	10.0	0.80	
ECWF2394□B()	0.39	18.0	9.0	16.0	21.0	15.0	10.0	0.80	
ECWF2434□B()	0.43	18.0	9.5	16.0	21.0	15.0	10.0	0.80	
ECWF2474□B()	0.47	23.0	8.0	15.0	20.0	20.0	12.5	0.80	400
ECWF2514□B()	0.51	23.0	8.5	15.0	20.0	20.0	12.5	0.80	
ECWF2564□B()	0.56	23.0	8.5	15.5	20.5	20.0	12.5	0.80	
ECWF2624□B()	0.62	23.0	9.0	16.0	21.0	20.0	12.5	0.80	
ECWF2684□B()	0.68	23.0	9.5	16.5	21.5	20.0	12.5	0.80	300
ECWF2754□B()	0.75	23.0	10.0	16.5	21.5	20.0	12.5	0.80	
ECWF2824□B()	0.82	23.0	10.5	17.0	22.0	20.0	12.5	0.80	
ECWF2914□B()	0.91	23.0	11.0	17.5	22.5	20.0	12.5	0.80	
ECWF2105□B()	1.0	23.0	11.5	18.0	23.0	20.0	12.5	0.80	
ECWF2115□B()	1.1	23.0	12.0	19.0	24.0	20.0	12.5	0.80	
ECWF2125□B()	1.2	23.0	12.5	19.5	24.5	20.0	12.5	0.80	
ECWF2135□B()	1.3	23.0	13.0	20.0	25.0	20.0	12.5	0.80	
ECWF2155□B()	1.5	23.0	14.0	21.0	26.0	20.0	12.5	0.80	
ECWF2165□B()	1.6	28.0	11.5	20.5	25.5	25.0	17.5	0.80	
ECWF2185□B()	1.8	28.0	12.5	21.0	26.0	25.0	17.5	0.80	
ECWF2205□B()	2.0	28.0	13.0	22.0	27.0	25.0	17.5	0.80	
ECWF2225□B()	2.2	28.0	14.0	22.5	27.5	25.0	17.5	0.80	
ECWF2245□B()	2.4	28.0	14.5	23.0	28.0	25.0	17.5	0.80	
ECWF2275□B()	2.7	28.0	15.5	24.0	29.0	25.0	17.5	0.80	
ECWF2305□B()	3.0	28.0	16.5	25.5	30.5	25.0	17.5	0.80	
ECWF2335□B()	3.3	28.0	17.0	26.0	31.0	25.0	17.5	0.80	
ECWF2365□B()	3.6	33.0	16.0	25.0	30.0	30.0	22.5	0.80	
ECWF2395□B()	3.9	33.0	16.5	25.5	30.5	30.0	22.5	0.80	
ECWF2435□B()	4.3	33.0	17.5	26.5	31.5	30.0	22.5	0.80	
ECWF2475□B()	4.7	33.0	18.0	27.0	32.0	30.0	22.5	0.80	


 Suffix for lead crimped or taped type
 Cap. tol. code

■ Rating, Dimensions & Quantity/Ammo Box

● Type ECWF(B), Rated voltage : 400 VDC, Capacitance tolerance : $\pm 3\%$ (H), $\pm 5\%$ (J)

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□B()	0.022	15.5	5.5	12.5	17.5	12.5	7.5	0.80	500
ECWF4243□B()	0.024	15.5	5.5	12.5	17.5	12.5	7.5	0.80	
ECWF4273□B()	0.027	15.5	6.0	12.5	17.5	12.5	7.5	0.80	
ECWF4303□B()	0.030	15.5	6.0	13.0	18.0	12.5	7.5	0.80	
ECWF4333□B()	0.033	15.5	5.5	12.5	17.5	12.5	7.5	0.80	
ECWF4363□B()	0.036	15.5	6.0	12.5	17.5	12.5	7.5	0.80	
ECWF4393□B()	0.039	15.5	6.0	12.5	17.5	12.5	7.5	0.80	
ECWF4433□B()	0.043	15.5	6.0	13.0	18.0	12.5	7.5	0.80	
ECWF4473□B()	0.047	15.5	6.5	13.0	18.0	12.5	7.5	0.80	
ECWF4513□B()	0.051	15.5	6.5	13.5	18.5	12.5	7.5	0.80	
ECWF4563□B()	0.056	15.5	6.5	13.5	18.5	12.5	7.5	0.80	
ECWF4623□B()	0.062	15.5	7.0	14.0	19.0	12.5	7.5	0.80	
ECWF4683□B()	0.068	18.0	6.5	13.0	18.0	15.0	10.0	0.80	
ECWF4753□B()	0.075	18.0	6.5	13.5	18.5	15.0	10.0	0.80	
ECWF4823□B()	0.082	18.0	7.0	13.5	18.5	15.0	10.0	0.80	
ECWF4913□B()	0.091	18.0	7.0	14.0	19.0	15.0	10.0	0.80	400
ECWF4104□B()	0.10	18.0	7.5	14.0	19.0	15.0	10.0	0.80	
ECWF4114□B()	0.11	18.0	7.5	14.5	19.5	15.0	10.0	0.80	
ECWF4124□B()	0.12	18.0	8.0	15.0	20.0	15.0	10.0	0.80	
ECWF4134□B()	0.13	18.0	8.0	15.0	20.0	15.0	10.0	0.80	
ECWF4154□B()	0.15	18.0	8.5	15.5	20.5	15.0	10.0	0.80	300
ECWF4164□B()	0.16	18.0	9.0	16.0	21.0	15.0	10.0	0.80	
ECWF4184□B()	0.18	18.0	9.5	16.5	21.5	15.0	10.0	0.80	
ECWF4204□B()	0.20	20.0	9.0	16.0	21.0	17.0	10.0	0.80	
ECWF4224□B()	0.22	20.0	9.5	16.5	21.5	17.0	10.0	0.80	
ECWF4244□B()*	0.24	20.0	10.0	16.5	21.5	17.0	10.0	0.80	300
ECWF4274□B()*	0.27	20.0	10.5	17.0	22.0	17.0	10.0	0.80	
ECWF4304□B()*	0.30	20.0	11.0	17.5	22.5	17.0	10.0	0.80	
ECWF4334□B()*	0.33	20.0	11.5	18.0	23.0	17.0	10.0	0.80	
ECWF4364□B()	0.36	23.0	12.5	20.0	25.0	20.0	12.5	0.80	
ECWF4394□B()	0.39	23.0	13.5	20.5	25.5	20.0	12.5	0.80	200
ECWF4434□B()	0.43	23.0	14.0	21.0	26.0	20.0	12.5	0.80	
ECWF4474□B()	0.47	23.0	14.5	21.5	26.5	20.0	12.5	0.80	
ECWF4514□B()	0.51	23.0	12.5	19.5	24.5	20.0	12.5	0.80	300
ECWF4564□B()	0.56	23.0	13.0	20.0	25.0	20.0	12.5	0.80	
ECWF4624□B()	0.62	23.0	14.0	21.0	26.0	20.0	12.5	0.80	200
ECWF4684□B()	0.68	23.0	14.5	21.5	26.5	20.0	12.5	0.80	
ECWF4754□B()	0.75	28.0	13.0	20.0	25.0	25.0	17.5	0.80	-
ECWF4824□B()	0.82	28.0	14.0	20.5	25.5	25.0	17.5	0.80	
ECWF4914□B()	0.91	28.0	14.5	21.5	26.5	25.0	17.5	0.80	
ECWF4105□B()	1.0	28.0	15.0	22.0	27.0	25.0	17.5	0.80	
ECWF4115□B()	1.1	28.0	16.0	22.5	27.5	25.0	17.5	0.80	
ECWF4125□B()	1.2	28.0	16.5	23.5	28.5	25.0	17.5	0.80	
ECWF4135□B()	1.3	28.0	17.0	24.0	29.0	25.0	17.5	0.80	
ECWF4155□B()	1.5	28.0	18.5	25.5	30.5	25.0	17.5	0.80	
ECWF4165□B()	1.6	28.0	19.5	26.5	31.5	25.0	17.5	0.80	

Suffix for lead crimped or taped type
 Cap. tol. code

* Lead crimped type last Suffix is "P"