

Film Chip Capacitor

Type: **ECWU(C)**

Stacked metallized PEN film as dielectric with simple mold-less construction

■Features

- Small in size
- Applicable for reflow soldering

■Recommended Applications

- DC Blocking for xDSL

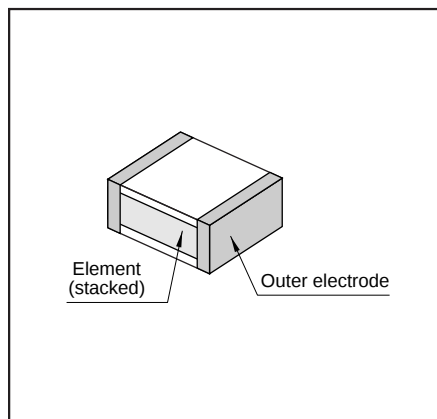
■Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11
E	C	W	U					V		
Product code	Dielectric & construction		Rated voltage		Capacitance			Suffix		
				2 4	250VDC 400VDC			V16 V17	for xDSL, Withstand voltage: 400VDC Cap.tol : ±5% for xDSL, Withstand voltage: 600VDC Cap.tol : ±5%	

■Specifications

Category temp.range	-55 to +85°C	
Rated voltage	250VDC(V16), 400VDC (V17)	
Capacitance range	250VDC(V16)	0.001 to 0.12 µF (E12)
	400VDC(V17)	0.001 to 0.15 µF (E12)
Capacitance tolerance	±5%(J)	
Withstand voltage	Between terminals 250VDC(V16) : 400VDC 60s 400VDC(V17) : 600VDC 60s	
Dissipation factor	≤1.0%(20°C, 1kHz)	
Insulation resistance	≥3000MΩ(20°C, 100VDC, 60s)	
Soldering conditions	Reflow soldering 230°C max. and 30s max. at more than 210°C (Temp.at cap.surface)	

■Construction



■Dimensions in mm (not to scale)

Size code	L	Tol	W	Tol	H	Tol
E1	4.8		3.3		1.4	
E2	4.8		3.3		2.0	
E3a	4.8		3.3		2.4	
E3	4.8		3.3		2.8	
D2	6.0	±0.2	4.1	±0.3	2.0	±0.2
D3	6.0		4.1		2.4	
D4	6.0		4.1		2.8	
D5	6.0		4.1		3.2	
B	6.0		5.0			
Z	7.1	±0.4	5.0			
Y	7.1		6.3	±0.4	✱	±0.3
V	9.8		6.3			
U	9.8	±0.5	8.0			

✱ Refer to the column "Rating, Dimensions & Quantity".

■Taping Specification for Automatic Mounting

See page 24 for automatic mounting.

■Rating, Dimensions & Quantity/Reel

●Capacitance tolerance : $\pm 5\%$ (J)

Cap. (μ F)	Rated volt. 250VDC						Rated volt. 400VDC					
	Part No	Dimensions (mm)			Size code	Q'ty	Part No	Dimensions (mm)			Size code	Q'ty
		L	W	H				L	W	H		
0.001	ECWU2102V16	4.8	3.3	1.4	E1	3,000	ECWU4102V17	4.8	3.3	1.4	E1	3,000
0.0012	ECWU2122V16	4.8	3.3	1.4	E1		ECWU4122V17	4.8	3.3	1.4	E1	
0.0015	ECWU2155V16	4.8	3.3	1.4	E1		ECWU4155V17	4.8	3.3	1.4	E1	
0.0018	ECWU2182V16	4.8	3.3	1.4	E1		ECWU4182V17	4.8	3.3	1.4	E1	
0.0022	ECWU2222V16	4.8	3.3	1.4	E1		ECWU4222V17	4.8	3.3	1.4	E1	
0.0027	ECWU2272V16	4.8	3.3	1.4	E1		ECWU4272V17	4.8	3.3	1.4	E1	
0.0033	ECWU2332V16	4.8	3.3	1.4	E1		ECWU4332V17	4.8	3.3	1.4	E1	
0.0039	ECWU2392V16	4.8	3.3	1.4	E1		ECWU4392V17	4.8	3.3	1.4	E1	
0.0047	ECWU2472V16	4.8	3.3	1.4	E1		ECWU4472V17	4.8	3.3	1.4	E1	
0.0056	ECWU2562V16	4.8	3.3	1.4	E1		ECWU4562V17	4.8	3.3	2.0	E2	
0.0068	ECWU2682V16	4.8	3.3	1.4	E1		ECWU4682V17	4.8	3.3	2.0	E2	
0.0082	ECWU2822V16	4.8	3.3	1.4	E1		ECWU4822V17	4.8	3.3	2.4	E3a	2,000
0.01	ECWU2103V16	4.8	3.3	1.4	E1		ECWU4103V17	4.8	3.3	2.8	E3	
0.012	ECWU2123V16	4.8	3.3	1.4	E1		ECWU4123V17	6.0	4.1	2.0	D2	3,000
0.015	ECWU2153V16	4.8	3.3	1.4	E1		ECWU4153V17	6.0	4.1	2.4	D3	2,000
0.018	ECWU2183V16	4.8	3.3	2.0	E2	2,000	ECWU4183V17	6.0	4.1	2.8	D4	
0.022	ECWU2223V16	4.8	3.3	2.0	E2		ECWU4223V17	6.0	4.1	3.2	D5	
0.027	ECWU2273V16	4.8	3.3	2.4	E3a	2,000	ECWU4273V17	6.0	5.0	3.0	B	1,500
0.033	ECWU2333V16	4.8	3.3	2.8	E3	3,000	ECWU4333V17	6.0	5.0	3.6	B	
0.039	ECWU2393V16	6.0	4.1	2.0	D2		ECWU4393V17	7.1	5.0	3.2	Z	
0.047	ECWU2473V16	6.0	4.1	2.4	D3	2,000	ECWU4473V17	7.1	5.0	3.8	Z	1,000
0.056	ECWU2563V16	6.0	4.1	2.8	D4		ECWU4563V17	7.1	6.3	3.6	Y	
0.068	ECWU2683V16	6.0	4.1	3.2	D5	1,500	ECWU4683V17	7.1	6.3	4.4	Y	
0.082	ECWU2823V16	6.0	5.0	3.2	B		ECWU4823V17	9.8	6.3	3.4	V	
0.1	ECWU2104V16	6.0	5.0	3.8	B		ECWU4104V17	9.8	6.3	4.0	V	
0.12	ECWU2124V16	6.0	5.0	4.5	B		ECWU4124V17	9.8	8.0	3.8	U	
0.15							ECWU4154V17	9.8	8.0	4.6	U	

■Recommended for Land Dimensions (mm)

The diagram illustrates the dimensions of a capacitor land. It shows two gray rectangular electrodes on a white background. The distance between the inner edges of the electrodes is labeled 'A'. The distance between the outer edges of the electrodes is labeled 'B'. The height of the electrodes is labeled 'C'. The area between the electrodes is labeled 'Land'. An arrow points to the top edge of the right electrode, labeled 'Electrode'.

Size code	Land dimensions for reflow soldering		
	A	B	C
E1, E2, E3a, E3	2.6	6.6	3.0
D2, D3, D4, D5	3.8	7.8	3.8
B	3.8	7.8	4.6
Z	4.5	9.0	4.6
Y	4.5	9.0	5.7
V	7.2	11.9	5.7
U	7.2	11.9	7.2