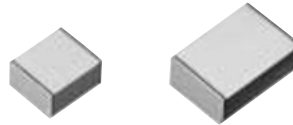


Film Chip Capacitor

Type: **ECWU(C)**

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



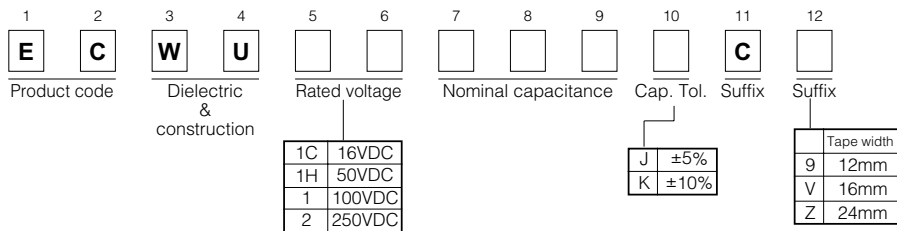
■ Features

- ◆ Small in size
- ◆ Applicable for reflow soldering

■ Recommended Applications

- ◆ Coupling
- ◆ By - pass
- ◆ General purpose

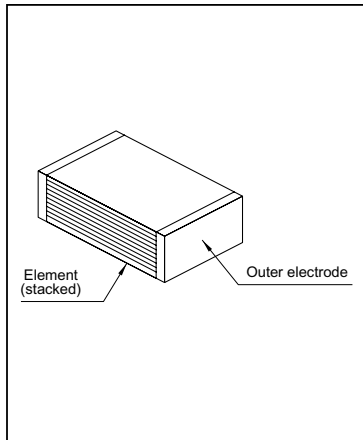
■ Explanation of Part Numbers



■ Specifications

Category temp.range	16VDC, 50VDC: - 55 to + 105°C	
	100VDC, 250VDC: - 40 to + 85°C	
Rated voltage	16VDC, 50VDC, 100VDC, 250VDC	
Capacitance range	16VDC	0.12 to 0.47 μF (E12)
	50VDC	0.056 to 0.22 μF (E12)
	100VDC	0.012 to 1.0 μF (E12)
	250VDC	0.001 to 1.0 μF (E12)
Capacitance tolerance	16VDC,50VDC	± 5%(J)
	100VDC,250VDC	± 10%(K) (100VDC, C≦0.15 μF ± 5%(J), ± 10%(K))
Withstand voltage	Between terminals 16VDC, 50VDC:Rated volt. (VDC)×175% 1 to 5s 100VDC, 250VDC:Rated volt. (VDC)×150% 60s	
Dissipation factor	≤ 1.0%(20°C,1kHz)	
Insulation resistance	C ≤ 0.33 μF	16VDC:≥ 3000MΩ • (20°C, 10VDC, 60s) 50VDC:≥ 3000MΩ • (20°C, 50VDC, 60s) 100VDC, 250VDC:≥ 3000MΩ • (20°C, 100VDC, 60s)
	C > 0.33 μF	16VDC:1000MΩ • μF min. (20°C, 10VDC, 60s) 100VDC, 250VDC:1000MΩ • μF min. (20°C, 100VDC, 60s)
Soldering conditions	Reflow soldering 16VDC, 50VDC:240°C max. and 30 sec max. at more than 210°C (Temp. at cap. surface) 100VDC, 250VDC:230°C max. and 30 sec 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	
D1	6.0	± 0.2	4.1	± 0.3	1.8	± 0.2
D2	6.0		4.1			
D3	6.0		4.1			
D4	6.0		4.1			
D5	6.0		4.1			
B	6.0		5.0			
Z	7.1		5.0			
X	7.7	± 0.4	5.5	± 0.4	*	± 0.3
Y	7.1		6.3			
V	9.8	± 0.5	6.3	± 0.4	*	± 0.3
U	9.8		8.0			
T	15.2		8.0			
S	15.2		10.0			

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

Taping Specification for Automatic Insertion(Mounting)

Refer to the PDF file of taping specifications.

Rating, Dimensions & Quantity/Reel

● Capacitance tolerance : ± 5% (J)

Cap. (μF)	Rated volt. 16VDC						Rated volt. 50VDC					
	Part No	Dimensions (mm)			Size code	Q'ty	Part No	Dimensions (mm)			Size code	Q'ty
		L	W	H				L	W	H		
0.056						ECWU1H563JC9	4.8	3.3	2.0	E2	3000	
0.068						ECWU1H683JC9	4.8	3.3	2.0	E2		
0.082						ECWU1H823JC9	4.8	3.3	2.4	E3a		
0.1						ECWU1H104JC9	4.8	3.3	2.8	E3		2000
0.12	ECWU1C124JC9	4.8	3.3	1.4	E1	ECWU1H124JC9	6.0	4.1	1.8	D1	3000	
0.15	ECWU1C154JC9	4.8	3.3	2.0	E2	ECWU1H154JC9	6.0	4.1	2.0	D2		
0.18	ECWU1C184JC9	4.8	3.3	2.0	E2	ECWU1H184JC9	6.0	4.1	2.4	D3	2000	
0.22	ECWU1C224JC9	4.8	3.3	2.4	E3a	ECWU1H224JC9	6.0	4.1	2.8	D4		
0.27	ECWU1C274JC9	6.0	4.1	1.8	D1						3000	
0.33	ECWU1C334JC9	6.0	4.1	2.0	D2							
0.39	ECWU1C394JC9	6.0	4.1	2.4	D3							
0.47	ECWU1C474JC9	6.0	4.1	2.8	D4							

Example for Land Dimensions (mm)

Size code	Land dimensions		
	Reflow soldering		
	A	B	C
E1, E2, E3a, E3	2.6	6.6	3.0
D1, D2, D3, D4, D5	3.8	7.8	3.8
B	3.8	7.8	4.6
Z	4.5	9.0	4.6
X	5.1	9.7	5.0
Y	4.5	9.0	5.7
V	7.2	11.9	5.7
U	7.2	11.9	7.2
T	12.6	17.3	7.2
S	12.6	17.3	9.0

■ Rating, Dimensions & Quantity/Reel

● Capacitance tolerance : ±5%(J), ±10%(K)

Cap. (μF)	Rated volt. 100VDC						Rated volt. 250VDC					
	Part No	Dimensions (mm)			Size code	Q'ty	Part No	Dimensions (mm)			Size code	Q'ty
		L	W	H				L	W	H		
0.001	Please use 100VDC rating ECWU(X)						ECWU2102KC9	4.8	3.3	1.4	E1	3000
0.0012							ECWU2122KC9	4.8	3.3	1.4	E1	
0.0015							ECWU2155KC9	4.8	3.3	1.4	E1	
0.0018							ECWU2182KC9	4.8	3.3	1.4	E1	
0.0022							ECWU2222KC9	4.8	3.3	1.4	E1	
0.0027							ECWU2272KC9	4.8	3.3	1.4	E1	
0.0033							ECWU2332KC9	4.8	3.3	1.4	E1	
0.0039							ECWU2392KC9	4.8	3.3	1.4	E1	
0.0047							ECWU2472KC9	4.8	3.3	1.4	E1	
0.0056							ECWU2562KC9	4.8	3.3	1.4	E1	
0.0068							ECWU2682KC9	4.8	3.3	1.4	E1	
0.0082							ECWU2822KC9	4.8	3.3	1.4	E1	
0.01							ECWU2103KC9	4.8	3.3	1.4	E1	
0.012							ECWU1123 C9	4.8	3.3	1.4	E1	
0.015	ECWU1153 C9	4.8	3.3	1.4	E1	ECWU2153KC9	4.8	3.3	1.4	E1		
0.018	ECWU1183 C9	4.8	3.3	1.4	E1	ECWU2183KC9	4.8	3.3	2.0	E2		
0.022	ECWU1223 C9	4.8	3.3	1.4	E1	ECWU2223KC9	4.8	3.3	2.0	E2		
0.027	ECWU1273 C9	4.8	3.3	1.4	E1	ECWU2273KC9	4.8	3.3	2.4	E3a		
0.033	ECWU1333 C9	4.8	3.3	1.4	E1	ECWU2333KC9	4.8	3.3	2.8	E3		
0.039	ECWU1393 C9	4.8	3.3	1.4	E1	ECWU2393KC9	6.0	4.1	2.0	D2		
0.047	ECWU1473 C9	4.8	3.3	2.0	E2	ECWU2473KC9	6.0	4.1	2.4	D3		
0.056	ECWU1563 C9	4.8	3.3	2.0	E2	ECWU2563KC9	6.0	4.1	2.8	D4		
0.068	ECWU1683 C9	4.8	3.3	2.4	E3a	ECWU2683KC9	6.0	4.1	3.2	D5		
0.082	ECWU1823 C9	4.8	3.3	2.8	E3	ECWU2823KC9	6.0	5.0	3.2	B		
0.1	ECWU1104 C9	6.0	4.1	1.8	D1	ECWU2104KC9	6.0	5.0	3.8	B		
0.12	ECWU1124 C9	6.0	4.1	2.4	D3	ECWU2124KCV	7.1	6.3	2.8	Y		
0.15	ECWU1154 C9	6.0	4.1	2.8	D4	ECWU2154KCV	7.1	6.3	3.5	Y		
0.18	ECWU1184KC9	7.1	5.0	2.0	Z	ECWU2184KCV	7.1	6.3	4.1	Y		
0.22	ECWU1224KC9	7.1	5.0	2.4	Z	ECWU2224KCV	7.1	6.3	5.1	Y		
0.27	ECWU1274KC9	7.1	5.0	2.9	Z	ECWU2274KCV	9.8	6.3	3.9	V		
0.33	ECWU1334KC9	7.1	5.0	3.5	Z	ECWU2334KCV	9.8	6.3	4.8	V		
0.39	ECWU1394KCV	7.7	5.5	3.4	X	ECWU2394KCV	9.8	8.0	4.4	U		
0.47	ECWU1474KCV	7.7	5.5	4.0	X	ECWU2474KCV	9.8	8.0	5.3	U		
0.56	ECWU1564KCV	9.8	6.3	3.0	V	ECWU2564KCZ	15.2	8.0	3.7	T		
0.68	ECWU1684KCV	9.8	6.3	3.6	V	ECWU2684KCZ	15.2	8.0	4.4	T		
0.82	ECWU1824KCV	9.8	6.3	4.3	V	ECWU2824KCZ	15.2	10.0	4.2	S		
1.0	ECWU1105KCV	9.8	6.3	5.1	V	ECWU2105KCZ	15.2	10.0	5.1	S		

Capacitance tolerance code

* Please consult us for capacitance tolerance ± 5%(J).