

### Film Chip Capacitor

Type: **ECWU(B)**

Stacked metallized PEN dielectric film with simple mold-less construction

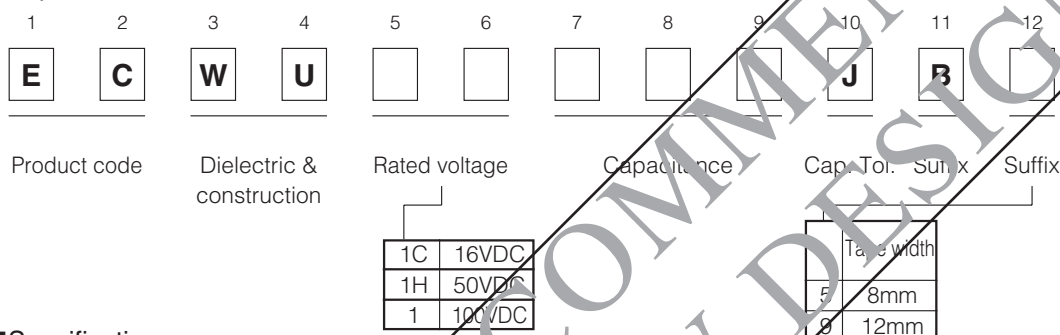
#### ■ Features

- Small in size (minimum size 3.2×1.6 mm)
- 85°C, 85%RH, W.V. × 1.0 for 500 hours
- For reflow soldering

#### ■ Recommended Applications

- Coupling
- By-pass
- General purpose

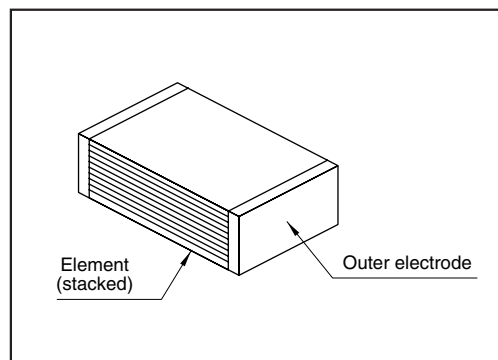
#### ■ Explanation of Part Numbers



#### ■ Specifications

Category temp. range	-55 to +105°C
Rated voltage	16VDC, 50VDC, 100VDC
Capacitance range	0.001 to 0.4 μF
Capacitance tolerance	±5% (J)
Withstand voltage	Between terminals : Rated volt. (VDC)×175% 1 to 5s
Dissipation factor	≤1.0% (20°C 1kHz)
Insulation resistance	C ≤ 0.33μF 16VDC : ≥3000MΩ(20°C, 10VDC 60s) 50VDC : ≥3000MΩ(20°C, 50VDC 60s) 100VDC : ≥3000MΩ(20°C, 100VDC 60s)
	C > 0.33μF 16VDC : 1000MΩ . μF min. (20°C, 10VDC 60s)
Soldering conditions	Reflow soldering : 240°C max. and 30sec max. at more than 210°C (Temp. at cap. surface)

#### ■ Construction



#### ■ Dimensions in mm (not to scale)

Size code H1,H2,H3,G1,G2,G3, E1,E2,E3a and E3. $L \pm 0.2$ $(\pm 0.3) \ast$ $W \pm 0.2$ $0.35 \pm 0.20$ $0.35 \pm 0.20$ $H \pm 0.2$	* To be applied only for size code E1, E2 E3a and E3.	Size code	L	W	H
		H1	3.2	1.6	0.8
Size code D1,D2,D3 and D4. $L \pm 0.2$ $W \pm 0.3$ $0.45 \pm 0.20$ $0.45 \pm 0.20$ $H \pm 0.2$	H2	3.2	1.6	1.0	
	H3	3.2	1.6	1.4	
	G1	3.2	2.5	1.0	
	G2	3.2	2.5	1.4	
	G3	3.2	2.5	2.0	
	E1	4.8	3.3	1.4	
	E2	4.8	3.3	2.0	
	E3a	4.8	3.3	2.4	
D1	6.0	4.1	1.8		
	D2	6.0	4.1	2.0	
	D3	6.0	4.1	2.4	
	D4	6.0	4.1	2.8	

## ■Taping Specification for Automatic Insertion(Mounting)

Refer to the PDF file of taping specifications

## ■Rating, Dimensions & Quantity/Reel

Cap. (μF)	Rated volt. 16VDC					Rated volt. 50VDC					Rated volt. 100VDC																			
	Part No.	Dimensions (mm)			Code	Q'ty	Part No.	Dimensions (mm)			Code	Q'ty	Part No.	Dimensions (mm)			Code	Q'ty												
		L	W	H				L	W	H				L	W	H														
0.001	For this rating use type ECHU(B)	3.2	1.6	1.0	H2	3000	For this rating use type ECHU(B)	3.2	1.6	0.8	H1	3000	ECWU1102JB5	3.2	1.6	1.0	H2	2000												
0.0012													ECWU1122JB5	3.2	1.6	1.0	H2													
0.0015													ECWU1152JB5	3.2	1.6	1.0	H2													
0.0018													ECWU1182JB5	3.2	1.6	1.0	H2													
0.0022													ECWU1222JB5	3.2	1.6	1.0	H2													
0.0027													ECWU1272JB5	3.2	1.6	1.0	H2													
0.0033													ECWU1332JB5	3.2	1.6	1.4	H3		2000											
0.0039													ECWU1392JB5	3.2	1.6	1.4	H3													
0.0047													ECWU1472JB5	3.2	1.6	1.4	H3													
0.0056													ECWU1562JB5	3.2	1.6	0.8	H1		3000	ECWU1362JB5	3.2	2.5	1.4	G2						
0.0068													ECWU1682JB5	3.2	1.6	0.8	H1			ECWU1662JB5	3.2	2.5	1.4	G2						
0.0082													ECWU1822JB5	3.2	1.6	1.0	H2			ECWU1822JB5	3.2	2.5	2.0	G3						
0.01													ECWU1H103JB5	3.2	1.6	1.0	H2		ECWU1H103JB5	3.2	1.6	1.0	H2	ECWU1103JB5	3.2	2.5	2.0	G3		
0.012													ECWU1C123JB5	3.2	1.6	1.0	H2		3000	ECWU1H123JB5	3.2	2.5	1.0	G1	2000	ECWU1123JB5	4.8	3.3	1.4	E1
0.015													ECWU1C153JB5	3.2	1.6	1.0	H2			ECWU1H153JB5	3.2	2.5	1.0	G1		ECWU1153JC9	4.8	3.3	1.4	E1
0.018	ECWU1C183JB5	3.2	1.6	1.0	H2	ECWU1H183JB5	3.2	2.5	1.4	G2	ECWU1183JC9	4.8	3.3	1.4	E1															
0.022	ECWU1C223JB5	3.2	1.6	1.0	H2	2000	ECWU1H223JB5	3.2	2.5	1.4	G2	3000	ECWU11223JC9	4.8	3.3	1.4	E1													
0.027	ECWU1C273JB5	3.2	1.6	1.0	H2		ECWU1H273JB5	3.2	2.5	1.4	G2		ECWU1273JC9	4.8	3.3	1.4	E1													
0.033	ECWU1C333JB5	3.2	1.6	1.4	H3		ECWU1H333JB5	3.2	2.5	2.0	G3		ECWU1333JC9	4.8	3.3	1.4	E1													
0.039	ECWU1C393JB5	3.2	1.6	1.4	H3	2000	ECWU1H393JB5	3.2	2.5	2.0	G3	3000	ECWU1393JC9	4.8	3.3	2.0	E2													
0.047	ECWU1C473JB5	3.2	1.6	1.4	H3		ECWU1H473JB5	3.2	2.5	2.0	G3		ECWU1473JC9	4.8	3.3	2.0	E2													
0.056	ECWU1C563JB5	3.2	2.5	1.4	G2		ECWU1H563JC9	4.8	3.3	2.0	E1																			
0.068	ECWU1C683JB5	3.2	2.5	1.4	G2	2000	ECWU1H683JC9	4.8	3.3	2.0	E2	3000	ECWU1H683JC9	4.8	3.3	2.0	E2													
0.082	ECWU1C823JB5	3.2	2.5	2.0	G3		ECWU1H823JC9	4.8	3.3	2.4	E3a		ECWU1H823JC9	4.8	3.3	2.4	E3a													
0.1	ECWU1C104JB5	3.2	2.5	2.0	G3		ECWU1H104JC9	4.8	3.3	2.4	E3a																			
0.12	ECWU1C124JC9	4.8	3.3	1.4	E1	3000	ECWU1H124JC9	6.0	4.1	1.8	D1	2000	ECWU1H124JC9	6.0	4.1	1.8	D1													
0.15	ECWU1C154JC9	4.8	3.3	2.0	E2		ECWU1H154JC9	6.0	4.1	2.0	D2		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		ECWU1H184JC9	6.0	4.1	2.4	D3													
0.22	ECWU1C224JC9	4.8	3.3	2.4	E3a	2000	ECWU1H224JC9	6.0	4.1	2.8	D4	3000	ECWU1H224JC9	6.0	4.1	2.8	D4													
0.27	ECWU1C274JC9	6.0	4.1	1.8	D1		2000	ECWU1H274JC9	6.0	4.1	2.8		D4	ECWU1H274JC9	6.0	4.1	2.8	D4												
0.33	ECWU1C334JC9	6.0	4.1	2.4	D2			ECWU1H334JC9	6.0	4.1	2.8		D4	ECWU1H334JC9	6.0	4.1	2.8	D4												
0.39	ECWU1C394JC9	6.0	4.1	2.4	D3	2000		ECWU1H394JC9	6.0	4.1	2.8	D4	3000	ECWU1H394JC9	6.0	4.1	2.8	D4												
0.47	ECWU1C474JC9	6.0	4.1	2.8	D4		ECWU1H474JC9	6.0	4.1	2.8	D4	ECWU1H474JC9		6.0	4.1	2.8	D4													

## ■Example for Land Dimensions (mm)

Code	Land dimensions		
	Reflow soldering		
	A	B	C
H1	2.2	3.8	1.4
H2	2.2	3.8	1.4
H3	2.2	3.8	1.4
G1	2.2	3.8	2.3
G2	2.2	3.8	2.3
G3	2.2	3.8	2.3
E1	2.6	6.6	3.0
E2	2.6	6.6	3.0
E3a	2.6	6.6	3.0
E3	2.6	6.6	3.0
D1	3.8	7.8	3.8
D2	3.8	7.8	3.8
D3	3.8	7.8	3.8
D4	3.8	7.8	3.8