

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

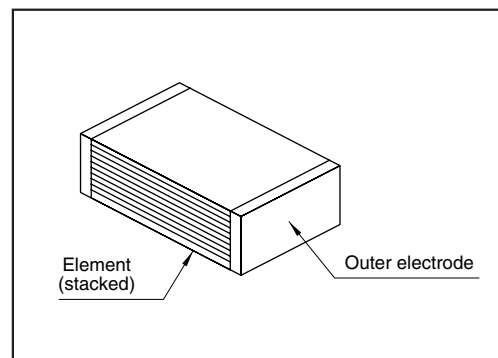
■Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12														
E	C	W	U						J	B															
Product code		Dielectric & construction		Rated voltage		Capacitance		Cap. Tol.	Suffix	Suffix															
				<table><tr><td>1C</td><td>16VDC</td></tr><tr><td>1H</td><td>50VDC</td></tr><tr><td>1</td><td>100VDC</td></tr></table>		1C	16VDC	1H	50VDC	1	100VDC					<table><tr><td colspan="2">Tape width</td></tr><tr><td>5</td><td>8mm</td></tr><tr><td>8</td><td>12mm</td></tr></table>		Tape width		5	8mm	8	12mm		
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■Specifications

Category temp. range	-55 to +105°C	
Rated voltage	16VDC, 50VDC, 100VDC	
Capacitance range	0.001 to 0.4 μ F	
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≤0.33 μ F	16VDC : ≥3000M Ω (20°C, 10VDC 60s) 50VDC : ≥3000M Ω (20°C, 50VDC 60s) 100VDC : ≥3000M Ω (20°C, 100VDC 60s)
	C>0.33 μ F	16VDC : 1000M Ω . μ F 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. $L \pm 0.2$ $(\pm 0.3) \star$ $W \pm 0.2$ $H \pm 0.2$ 0.35 ± 0.20 0.35 ± 0.20		$\star$ To be applied only for size code E1, E2 E3a and E3.																																																													
Size code D1,D2,D3 and D4. $L \pm 0.2$ $W \pm 0.3$ 0.45 ± 0.20 0.45 ± 0.20		<table border="1"> <tr> <th>Size code</th><th>L</th><th>W</th><th>H</th></tr> <tr><td>H1</td><td>3.2</td><td>1.6</td><td>0.8</td></tr> <tr><td>H2</td><td>3.2</td><td>1.6</td><td>1.0</td></tr> <tr><td>H3</td><td>3.2</td><td>1.6</td><td>1.4</td></tr> <tr><td>G1</td><td>3.2</td><td>2.5</td><td>1.0</td></tr> <tr><td>G2</td><td>3.2</td><td>2.5</td><td>1.4</td></tr> <tr><td>G3</td><td>3.2</td><td>2.5</td><td>2.0</td></tr> <tr><td>E1</td><td>4.8</td><td>3.3</td><td>1.4</td></tr> <tr><td>E2</td><td>4.8</td><td>3.3</td><td>2.0</td></tr> <tr><td>E3a</td><td>4.8</td><td>3.3</td><td>2.4</td></tr> <tr><td>E3</td><td>4.8</td><td>3.3</td><td>2.8</td></tr> <tr><td>D1</td><td>6.0</td><td>4.1</td><td>1.8</td></tr> <tr><td>D2</td><td>6.0</td><td>4.1</td><td>2.0</td></tr> <tr><td>D3</td><td>6.0</td><td>4.1</td><td>2.4</td></tr> <tr><td>D4</td><td>6.0</td><td>4.1</td><td>2.8</td></tr> </table>		Size code	L	W	H	H1	3.2	1.6	0.8	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	E3	4.8	3.3	2.8	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
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■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)					For this rating use type ECHU(B)					ECWU1102JB5					3.2	1.6	1.0	H2	3000
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	2.5	1.4	G2	
0.0068	ECWU1682JB5					3.2	2.5	1.4	G2	2000										
0.0082	ECWU1822JB5					3.2	2.5	2.0	G3											
0.01	ECWU1H103JB5					3.2	1.6	1.0	H2	ECWU1103JB5	3.2	2.5	2.0	G3	3000					
0.012	ECWU1C123JB5	3.2	1.6	1.0	H2	3000	ECWU1H123JB5	3.2	2.5	1.0	G1	ECWU1123JC9	4.8	3.3		1.4	E1	3000		
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	1.0	G2	ECWU1183JC9	4.8	3.3		1.4	E1			
0.022	ECWU1C223JB5	3.2	1.6	1.0	H2		ECWU1H223JB5	3.2	2.5	1.4	G2	ECWU1223JC9	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	ECWU1393JC9	4.8	3.3		2.0	E2	2000		
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		ECWU1H563JB5	3.2	2.5	2.0	G3	ECWU1563JC9	4.8	3.3		2.0	E2			
0.068	ECWU1C683JB5	3.2	2.5	1.4	G2		ECWU1H683JB5	3.2	2.5	2.0	G3	ECWU1683JC9	4.8	3.3	2.0	E2				
0.082	ECWU1C823JB5	3.2	2.5	2.0	G3		ECWU1H823JB5	3.2	2.5	2.4	E3a	ECWU1823JC9	4.8	3.3	2.4	E3a				
0.1	ECWU1C104JB5	3.2	2.5	2.0	G3		ECWU1H104JB5	3.2	2.5	2.4	E3a	ECWU1104JC9	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	ECWU1124JC9	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		ECWU1154JC9	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		ECWU1184JC9	6.0	4.1	2.4	D3			
0.22	ECWU1C224JC9	4.8	3.3	2.4	E3a		ECWU1H224JC9	6.0	4.1	2.8	D4		ECWU1224JC9	6.0	4.1	2.8	D4			
0.27	ECWU1C274JC9	6.0	4.1	1.8	D1															
0.33	ECWU1C334JC9	6.0	4.1	2.0	D2		2000													
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)

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