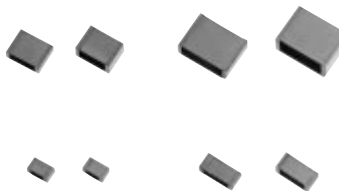


Film Chip Capacitor

Type: **ECHU (High grade)**

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



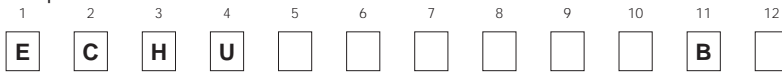
■ Features

- Small in size (minimum size 2.0×1.25mm)
- 85°C, 85%RH, W.V. × 1.0 for 500 hours
- Applicable for both flow and reflow soldering

■ Recommended Applications

- Time-constant
- Filtering
- Oscillation and resonance

■ Explanation of Part Numbers

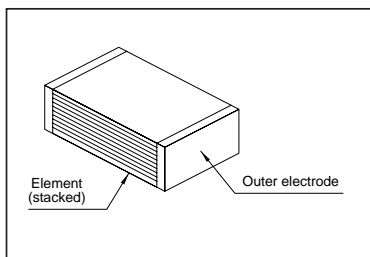


Product code	Dielectric & construction	Rated voltage	Nominal capacitance	Cap. Tol.	Suffix	Suffix														
E	C	H	U																	
		<table border="1"> <tr><td>1C</td><td>16VDC</td></tr> <tr><td>1H</td><td>50VDC</td></tr> </table>	1C	16VDC	1H	50VDC		<table border="1"> <tr><td>G</td><td>±2%</td></tr> <tr><td>J</td><td>±5%</td></tr> </table>	G	±2%	J	±5%		<table border="1"> <tr><td></td><td>Tape width</td></tr> <tr><td>5</td><td>8mm</td></tr> <tr><td>9</td><td>12mm</td></tr> </table>		Tape width	5	8mm	9	12mm
1C	16VDC																			
1H	50VDC																			
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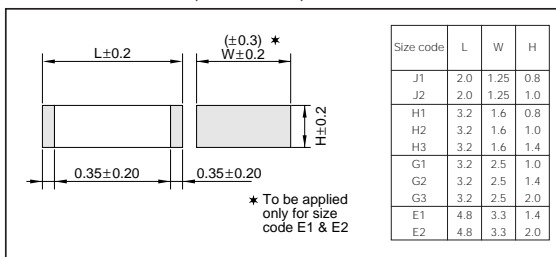
■ Specifications

Operating temp.range	-55 to +125°C
Rated voltage	16VDC, 50VDC
Capacitance range	0.0001 to 0.1 μF (E12)
Capacitance tolerance	±2%(G), ±5%(J)
Withstand voltage	Between terminals : Rated volt. (VDC)×175% 1 to 5s
Dissipation factor	≤0.6% (20°C, 1kHz)
Insulation resistance	16VDC : ≥3000MΩ (20°C, 10VDC 60s) 50VDC : ≥3000MΩ (20°C, 50VDC 60s)
Soldering conditions	Flow soldering : 260°C max. 5sec max. Reflow soldering : 260°C max. and 30sec max. at more than 230°C (Temp. at cap. surface)

■ Construction



■ Dimensions in mm (not to scale)



Rating, Dimensions & Quantity/Reel

Cap. (μF)	Rating volt. 16VDC						Rating volt. 50VDC						
	Part No.	Dimensions (mm)			Code	Qty	Part No.	Dimensions (mm)			Code	Qty	
		L	W	H				L	W	H			
0.0001	Please use 50VDC rating of ECHU(B)	ECHU1H101□B5	2.0	1.25	0.8	J1	3000	ECHU1H101□B5	2.0	1.25	0.8	J1	
0.00012		ECHU1H121□B5	2.0	1.25	0.8	J1		ECHU1H121□B5	2.0	1.25	0.8	J1	
0.00015		ECHU1H151□B5	2.0	1.25	0.8	J1		ECHU1H151□B5	2.0	1.25	0.8	J1	
0.00018		ECHU1H181□B5	2.0	1.25	0.8	J1		ECHU1H181□B5	2.0	1.25	0.8	J1	
0.00022		ECHU1H221□B5	2.0	1.25	0.8	J1		ECHU1H221□B5	2.0	1.25	0.8	J1	
0.00027		ECHU1H271□B5	2.0	1.25	0.8	J1		ECHU1H271□B5	2.0	1.25	0.8	J1	
0.00033		ECHU1H331□B5	2.0	1.25	0.8	J1		ECHU1H331□B5	2.0	1.25	0.8	J1	
0.00039		ECHU1H391□B5	2.0	1.25	0.8	J1		ECHU1H391□B5	2.0	1.25	0.8	J1	
0.00047		ECHU1H471□B5	2.0	1.25	0.8	J1		ECHU1H471□B5	2.0	1.25	0.8	J1	
0.00056		ECHU1H561□B5	2.0	1.25	0.8	J1		ECHU1H561□B5	2.0	1.25	0.8	J1	
0.00068		ECHU1H681□B5	2.0	1.25	0.8	J1		ECHU1H681□B5	2.0	1.25	0.8	J1	
0.00082		ECHU1H821□B5	2.0	1.25	0.8	J1		ECHU1H821□B5	2.0	1.25	0.8	J1	
0.001		ECHU1H102□B5	2.0	1.25	0.8	J1		ECHU1H102□B5	2.0	1.25	0.8	J1	
0.0012		ECHU1H122□B5	2.0	1.25	0.8	J1		ECHU1H122□B5	2.0	1.25	0.8	J1	
0.0015		ECHU1H152□B5	2.0	1.25	0.8	J1		ECHU1H152□B5	2.0	1.25	0.8	J1	
0.0018		ECHU1H182□B5	2.0	1.25	0.8	J1		ECHU1H182□B5	2.0	1.25	0.8	J1	
0.0022		ECHU1H222□B5	2.0	1.25	0.8	J1		ECHU1H222□B5	2.0	1.25	0.8	J1	
0.0027		ECHU1H272□B5	2.0	1.25	0.8	J1		ECHU1H272□B5	2.0	1.25	0.8	J1	
0.0033		ECHU1C332□B5	2.0	1.25	0.8	J1		3000	ECHU1H332□B5	3.2	1.6	0.8	H1
0.0039		ECHU1C392□B5	2.0	1.25	0.8	J1			ECHU1H392□B5	3.2	1.6	0.8	H1
0.0047		ECHU1C472□B5	2.0	1.25	0.8	J1			ECHU1H472□B5	3.2	1.6	0.8	H1
0.0056		ECHU1C562□B5	2.0	1.25	0.8	J1			ECHU1H562□B5	3.2	1.6	0.8	H1
0.0068		ECHU1C682□B5	2.0	1.25	0.8	J1			ECHU1H682□B5	3.2	1.6	0.8	H1
0.0082		ECHU1C822□B5	2.0	1.25	1.0	J2			ECHU1H822□B5	3.2	1.6	1.0	H2
0.01		ECHU1C103□B5	2.0	1.25	1.0	J2			ECHU1H103□B5	3.2	1.6	1.0	H2
0.012		ECHU1C123□B5	3.2	1.6	0.8	H1			ECHU1H123□B5	3.2	2.5	1.0	G1
0.015		ECHU1C153□B5	3.2	1.6	0.8	H1			ECHU1H153□B5	3.2	2.5	1.0	G1
0.018	ECHU1C183□B5	3.2	1.6	0.8	H1	ECHU1H183□B5	3.2		2.5	1.4	G2		
0.022	ECHU1C223□B5	3.2	1.6	0.8	H1	ECHU1H223□B5	3.2		2.5	1.4	G2		
0.027	ECHU1C273□B5	3.2	1.6	1.0	H2	ECHU1H273□B5	3.2		2.5	1.4	G2		
0.033	ECHU1C333□B5	3.2	1.6	1.0	H2	ECHU1H333□B5	3.2		2.5	2.0	G3		
0.039	ECHU1C393□B5	3.2	1.6	1.4	H3	ECHU1H393□B5	3.2		2.5	2.0	G3		
0.047	ECHU1C473□B5	3.2	1.6	1.4	H3	ECHU1H473□B9	4.8		3.3	1.4	E1		
0.056	ECHU1C563□B5	3.2	2.5	1.4	G2	ECHU1H563□B9	4.8		3.3	1.4	E1		
0.068	ECHU1C683□B5	3.2	2.5	1.4	G2	ECHU1H683□B9	4.8		3.3	1.4	E1		
0.082	ECHU1C823□B5	3.2	2.5	2.0	G3	ECHU1H823□B9	4.8		3.3	2.0	E2		
0.1	ECHU1C104□B5	3.2	2.5	2.0	G3	ECHU1H104□B9	4.8		3.3	2.0	E2		

Capacitance tolerance code G, J

Example for Land Dimensions (mm)

The diagram shows a top-down view of a capacitor land. It consists of two rectangular electrodes. The distance between the inner edges of the electrodes is labeled 'A'. The distance between the outer edges is labeled 'B'. The height of the electrodes is labeled 'C'. One electrode is labeled 'Electrode'.

Code	Land dimensions					
	Flow soldering			Reflow soldering		
	A	B	C	A	B	C
J1	1.0	2.7	1.1	1.0	2.7	1.1
J2	1.0	2.7	1.1	1.0	2.7	1.1
H1	2.2	3.8	1.4	2.2	3.8	1.4
H2	2.2	3.8	1.4	2.2	3.8	1.4
H3	2.2	3.8	1.4	2.2	3.8	1.4
G1	2.2	3.8	2.3	2.2	3.8	2.3
G2	2.2	3.8	2.3	2.2	3.8	2.3
G3	2.2	3.8	2.3	2.2	3.8	2.3
E1	2.6	6.6	3.0	2.6	6.6	3.0
E2	2.6	6.6	3.0	2.6	6.6	3.0