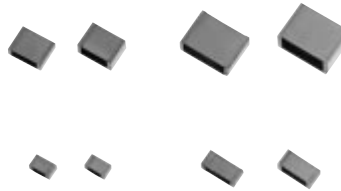


Film Chip Capacitor

Type: **ECHU (High grade)**

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



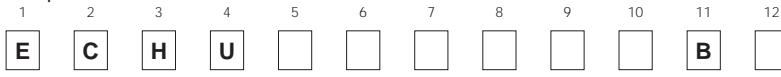
■ Features

- 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

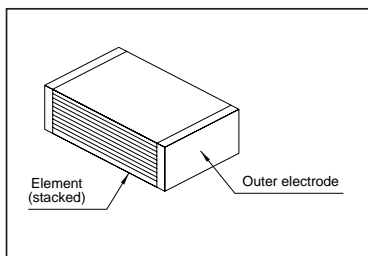


Product code	Dielectric & construction	Rated voltage	Nominal capacitance	Cap. Tol.	Suffix	Suffix														
		<table border="1"> <tr><td>1C</td><td>16VDC</td></tr> <tr><td>1H</td><td>50VDC</td></tr> </table>	1C	16VDC	1H	50VDC		<table border="1"> <tr><td>G</td><td>±2%</td></tr> <tr><td>J</td><td>±5%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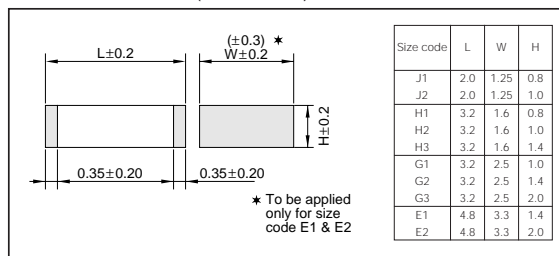
■ Specifications

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						
0.00012							ECHU1H121□B5	2.0	1.25	0.8	J1							
0.00015							ECHU1H151□B5	2.0	1.25	0.8	J1							
0.00018							ECHU1H181□B5	2.0	1.25	0.8	J1							
0.00022							ECHU1H221□B5	2.0	1.25	0.8	J1							
0.00027							ECHU1H271□B5	2.0	1.25	0.8	J1							
0.00033							ECHU1H331□B5	2.0	1.25	0.8	J1							
0.00039							ECHU1H391□B5	2.0	1.25	0.8	J1							
0.00047							ECHU1H471□B5	2.0	1.25	0.8	J1							
0.00056							ECHU1H561□B5	2.0	1.25	0.8	J1							
0.00068							ECHU1H681□B5	2.0	1.25	0.8	J1							
0.00082							ECHU1H821□B5	2.0	1.25	0.8	J1							
0.001							ECHU1H102□B5	2.0	1.25	0.8	J1							
0.0012							ECHU1H122□B5	2.0	1.25	0.8	J1							
0.0015							ECHU1H152□B5	2.0	1.25	0.8	J1							
0.0018							ECHU1H182□B5	2.0	1.25	0.8	J1							
0.0022							ECHU1H222□B5	2.0	1.25	0.8	J1							
0.0027							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