

Film Chip Capacitor

Type: **ECHU** (High grade)

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

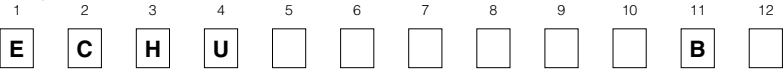
■Features

- 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

1C	16VDC
1H	50VDC

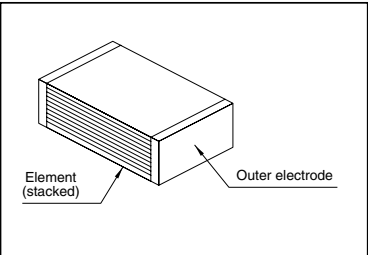
G	±2%
J	±5%

	Tape width
5	8mm
9	12mm

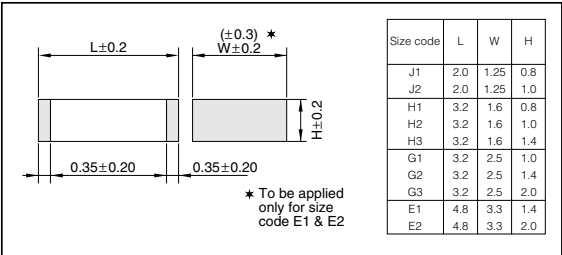
■Specifications

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	2000
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	2000	ECHU1H223□B5	3.2	2.5	1.4	G2	3000
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)

Electrode

Land

A

B

C

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