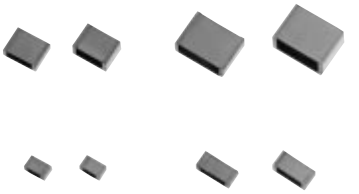
Film Chip Capacitor

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

1	2	3	4	5	6	7	8	9	10	11	12
E	C	H	U							B	

Product code: E C

Dielectric & construction: H U

Rated voltage:

1C	16VDC
1H	50VDC

Nominal capacitance: 5 6 7 8 9

Cap. Tol.:

G	±2%
J	±5%

Suffix: B

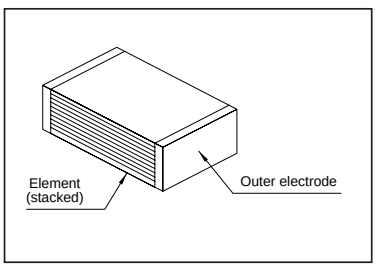
Suffix:

	Tape width
5	8mm
9	12mm

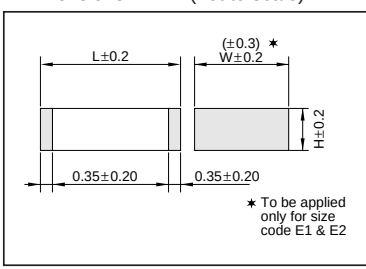
■Specifications

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)



Size code	L	W	H
J1	2.0	1.25	0.8
J2	2.0	1.25	1.0
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

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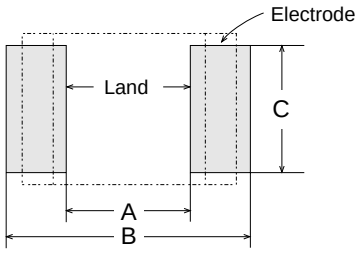
■Rating, Dimensions & Quantity/Reel

Cap. (μF)	Rating volt. 16VDC						Rating volt. 50VDC					
	Part No.	Dimensions (mm) L	W	H	Code	Qty	Part No.	Dimensions (mm) L	W	H	Code	Qty
0.0001	Please use 50VDC rating of ECHU(B)						ECHU1H101□B5	2.0	1.25	0.8	J1	
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	3000
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		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	3000	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	2000
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	2000	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	3000
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)



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

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