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Film Chip Capacitor

Type: **ECHU(B)**

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

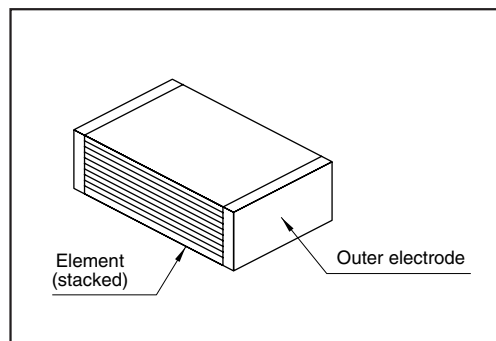
■Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	C	H	U							B	
Product code	Dielectric & construction		Rated voltage		Capacitance			Cap. Tol.	Suffix	Suffix	
				1C	16VDC				G ±2%		Tape width
				1H	50VDC				J ±5%		5 8mm
											9 12mm

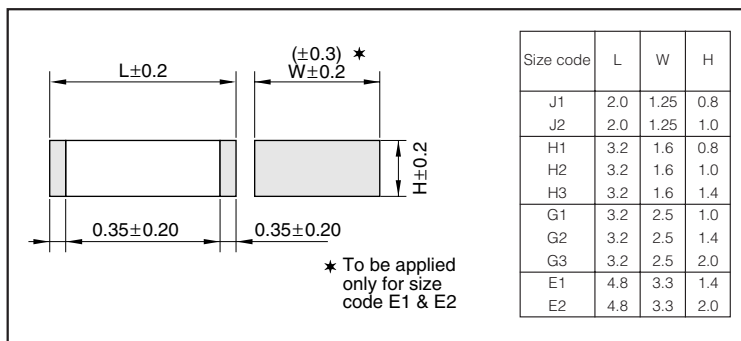
■Specifications

Category temp. range	-5 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	≤0.0% (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)



■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															
	Part No.	Dimensions (mm)			Code	Q'ty	Part No.	Dimensions (mm)			Code	Q'ty										
		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		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	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)

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