

Stacked Metallized PPS Film Chip Capacitor

Type: **ECHU(C)**

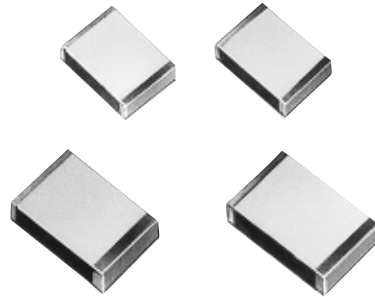
Stacked metallized PPS film as dielectric with simple mold-less construction

■Features

- Small in size
- Low loss and excellent frequency characteristics
- RoHS directive compliant

■Recommended Applications

- Time-constant
- Filtering
- Oscillation and resonance
- Resonance circuit for LCD backlight inverter unit



■Explanation of Numbers

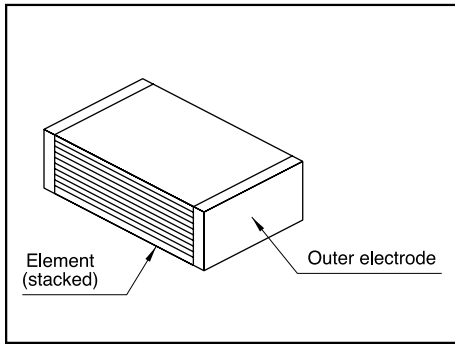
1	2	3	4	5	6	7	8	9	10	11	12														
E	C	H	U							C															
Product code	Dielectric & construction		Rated voltage		Capacitance			Cap. Tol.		Suffix	Suffix														
			<table border="1"> <tr><td>1H</td><td>50 VDC</td></tr> <tr><td>1</td><td>100 VDC</td></tr> </table>		1H	50 VDC	1	100 VDC				<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>9</td><td>12 mm</td></tr> <tr><td>V</td><td>16 mm</td></tr> </table>		Tape width	9	12 mm	V	16 mm
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■Specifications

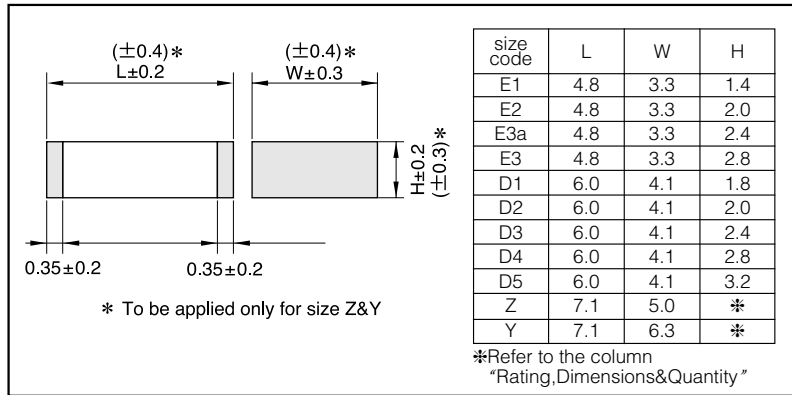
Category temp. range (Including temperature-rise on unit surface)	50 VDC : -55 °C to +125 °C	
	100 VDC : -55 °C to +105 °C	
Rated voltage	50 VDC, 100 VDC (50 VDC : 0.12 μF or more : Derating of rated voltage by 1.25 %/°C at more than 105 °C)	
Capacitance range	50 VDC	0.047 μF to 0.22 μF(E12)
	100 VDC	0.010 μF to 0.22 μF(E12)
Capacitance tolerance	±2 %(G), ±5 %(J)	
Withstand voltage	50 VDC : Between terminals : Rated volt. (VDC)×175 % 1 s to 5 s 100 VDC : Between terminals : Rated volt. (VDC)×160 % 60 s	
Dissipation factor (tanδ)	tanδ ≤ 0.6 % (20 °C, 1 kHz)	
Insulation resistance (IR)	50 VDC : IR ≥ 3000 MΩ (20 °C, 50 VDC, 60 s) 100 VDC : IR ≥ 3000 MΩ (20 °C, 100 VDC, 60 s)	
Soldering conditions	50 VDC	Flow soldering : 260 °C max., 5 s max. Reflow soldering : 260 °C max. and 30 s max. at more than 230 °C (Temp. at cap. Surface)
	100 VDC	Reflow soldering : 260 °C max. and 30 s max. at more than 230 °C (Temp. at cap. Surface)

* In case of applying voltage in alternating current (50 Hz or 60 Hz sine wave) to a capacitor with DC rated voltage, please refer to the page of "Permissible voltage (R.M.S) in alternating current corresponding to DC rated voltage".

Construction



Dimensions in mm (not to scale)



Taping Specification for Automatic Mounting

Refer to the page of taping specifications.

Rating, Dimensions & Quantity/Reel

● Capacitance tolerance: $\pm 2\%$ (G), $\pm 5\%$ (J)

Cap. (μF)	Rated volt. 50 VDC					Rated volt. 100 VDC							
	Part No.	Dimensions (mm)			Size Code	Q'ty	Part No.	Dimensions (mm)			Size Code	Q'ty	
		L	W	H				L	W	H			
0.010	Please use 50 VDC rating of ECHU(X)	C9	4.8	3.3	1.4	E1	ECHU1103	4.8	3.3	1.4	E1	3000	
0.012							ECHU1123	4.8	3.3	1.4	E1		
0.015							ECHU1153	4.8	3.3	2.0	E2		
0.018							ECHU1183	4.8	3.3	2.0	E2		
0.022							ECHU1223	4.8	3.3	2.4	E3a		
0.027							ECHU1273	4.8	3.3	2.8	E3		2000
0.033							ECHU1333	6.0	4.1	1.8	D1		
0.039							ECHU1393	6.0	4.1	2.0	D2		3000
0.047							ECHU1473	6.0	4.1	2.4	D3		
0.056							ECHU1563	6.0	4.1	2.8	D4		2000
0.068	ECHU1683	6.0	4.1	3.2	D5								
0.082	ECHU1823	7.1	5.0	2.8	Z	1500							
0.10	ECHU1104	7.1	5.0	3.0	Z								
0.12	ECHU1H124	7.1	5.0	3.4	Z	1000							
0.15	ECHU1H154	7.1	6.3	3.4	Y								
0.18	ECHU1H184	7.1	6.3	4.0	Y								
0.22	ECHU1224	7.1	6.3	4.8	Y								

Cap. tol. code

Recommended for Land Dimensions (mm)

