

Stacked Metallized PPS Film Chip Capacitor

Type: **ECHU(C)**

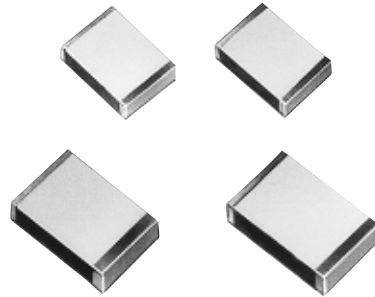
Stacked metallized PPS film as dielectric with simple mold-less construction

■Features

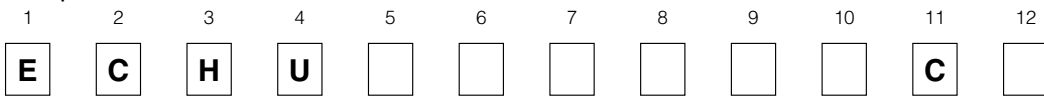
- Small in size
- Low loss and excellent frequency characteristics
- RoHS directive compliant

■Recommended Applications

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



■Explanation of Numbers



Product code

Dielectric & construction

Rated voltage

Capacitance

Cap. Tol.

Suffix

Suffix

1H	50 VDC
1	100 VDC

G	±2 %
J	±5 %

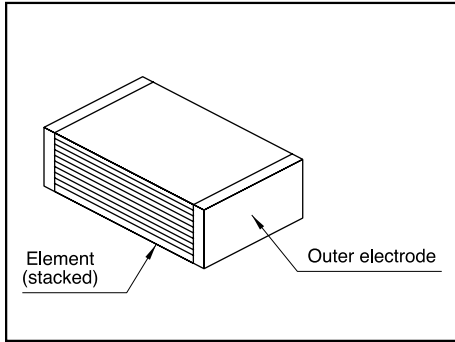
	Tape width
9	12 mm
V	16 mm

■Specifications

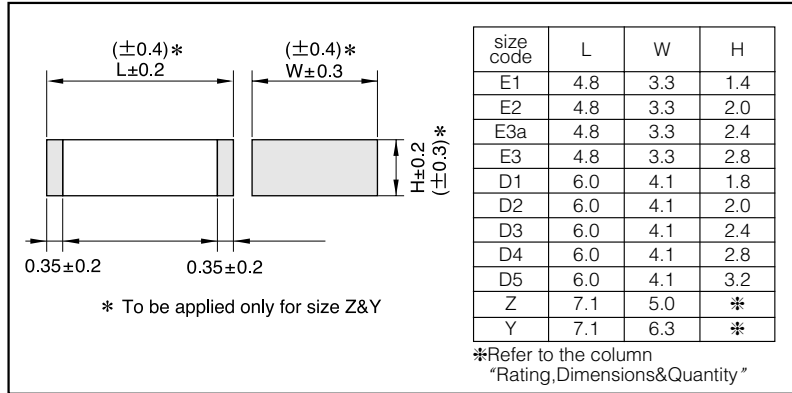
Category temp. range (Including temperature-rise on unit surface)	50 VDC : -55 °C to +125 °C	
	100 VDC : -55 °C to +105 °C	
Rated voltage	50 VDC, 100 VDC (50 VDC : 0.12 μF or more : Derating of rated voltage by 1.25 %/°C at more than 105 °C)	
Capacitance range	50 VDC	0.047 μF to 0.22 μF(E12)
	100 VDC	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)					ECHU1103	C9	4.8	3.3	1.4	E1	3000							
0.012						ECHU1123	C9	4.8	3.3	1.4	E1								
0.015						ECHU1153	C9	4.8	3.3	2.0	E2								
0.018						ECHU1183	C9	4.8	3.3	2.0	E2	2000							
0.022						ECHU1223	C9	4.8	3.3	2.4	E3a								
0.027						ECHU1273	C9	4.8	3.3	2.8	E3	3000							
0.033						ECHU1333	C9	6.0	4.1	1.8	D1								
0.039						ECHU1393	C9	6.0	4.1	2.0	D2								
0.047						ECHU1H473	C9	4.8	3.3	1.4	E1	3000	ECHU1473	C9	6.0	4.1	2.4	D3	2000
0.056						ECHU1H563	C9	4.8	3.3	2.0	E2		ECHU1563	C9	6.0	4.1	2.8	D4	
0.068	ECHU1H683	C9	4.8	3.3	2.0	E2	2000	ECHU1683	C9	6.0	4.1	3.2	D5	1500					
0.082	ECHU1H823	C9	4.8	3.3	2.4	E3a		ECHU1823	C9	7.1	5.0	2.8	Z						
0.10	ECHU1H104	C9	4.8	3.3	2.8	E3	3000	ECHU1104	C9	7.1	5.0	3.0	Z	1500					
0.12	ECHU1H124	C9	6.0	4.1	1.8	D1		ECHU1124	C9	7.1	5.0	3.4	Z						
0.15	ECHU1H154	C9	6.0	4.1	2.4	D3	2000	ECHU1154	CV	7.1	6.3	3.4	Y	1000					
0.18	ECHU1H184	C9	6.0	4.1	2.8	D4		ECHU1184	CV	7.1	6.3	4.0	Y						
0.22	ECHU1H224	C9	6.0	4.1	3.2	D5		ECHU1224	CV	7.1	6.3	4.8	Y						

Cap. tol. code

Recommended for Land Dimensions (mm)

