

**Stacked Metallized PPS Film Chip Capacitor**

Type: **ECHU(C)**

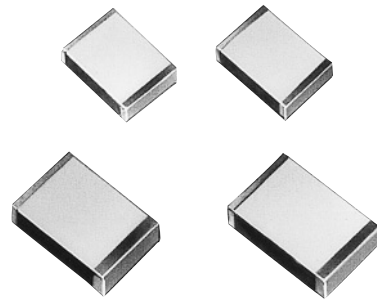
Stacked metallized PPS film as dielectric with simple mold-less construction

■ **Features**

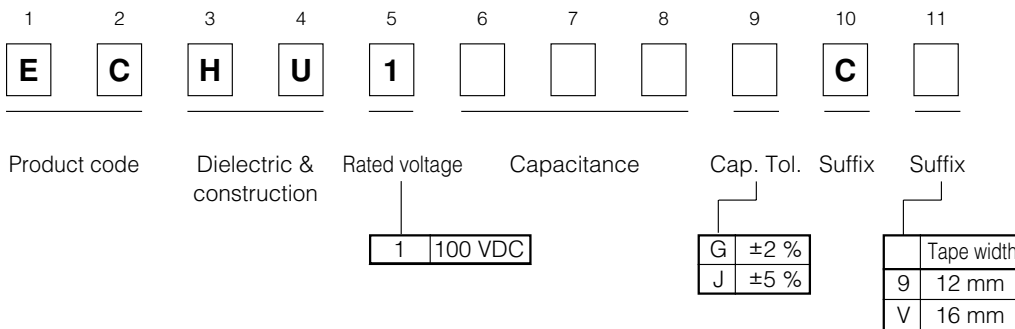
- Small in size
- Low loss and excellent frequency characteristics
- For reflow soldering
- RoHS directive compliant

■ **Recommended Applications**

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



■ **Explanation of Numbers**



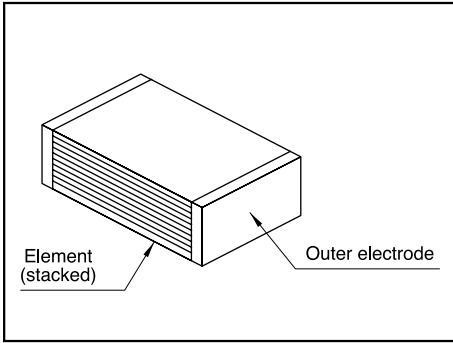
■ **Specifications**

Category temp. range (Including temperature-rise on unit surface)	-55 °C to +105 °C
Rated voltage	100 VDC
Capacitance range	0.010 μF to 0.22 μF(E12)
Capacitance tolerance	±2 %(G), ±5 %(J)
Withstand voltage	Between terminals : Rated volt. (VDC)×150 % 60 s
Dissipation factor (tanδ)	tan δ ≤0.6 % (20 °C, 1 kHz)
Insulation resistance (IR)	IR ≥3000 MΩ(20 °C, 100 VDC, 60 s)
Soldering conditions	Reflow soldering : 260 °C max. and 95 s max. at more than 220 °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".

Chip

■ Construction



■ Dimensions in mm (not to scale)

size code	L	W	H
E1	4.8	3.3	1.4
E2	4.8	3.3	2.0
E3a	4.8	3.3	2.4
E3	4.8	3.3	2.8
D1	6.0	4.1	1.8
D2	6.0	4.1	2.0
D3	6.0	4.1	2.4
D4	6.0	4.1	2.8
D5	6.0	4.1	3.2
Z	7.1	5.0	*
Y	7.1	6.3	*

\* To be applied only for size Z&Y

\*Refer to the column "Rating,Dimensions&Quantity"

■ Taping Specification for Automatic Mounting

Refer to the page of taping specifications.

■ Rating, Dimensions & Quantity/Reel

● Capacitance tolerance: ±2 % (G), ±5 % (J)

Cap.(µF)	Rated volt. 100 VDC					Q'ty
	Part No.	Dimensions (mm)			Size Code	
		L	W	H		
0.010	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	
0.022	ECHU1223□C9	4.8	3.3	2.4	E3a	2000
0.027	ECHU1273□C9	4.8	3.3	2.8	E3	
0.033	ECHU1333□C9	6.0	4.1	1.8	D1	3000
0.039	ECHU1393□C9	6.0	4.1	2.0	D2	
0.047	ECHU1473□C9	6.0	4.1	2.4	D3	
0.056	ECHU1563□C9	6.0	4.1	2.8	D4	2000
0.068	ECHU1683□C9	6.0	4.1	3.2	D5	
0.082	ECHU1823□C9	7.1	5.0	2.8	Z	1500
0.10	ECHU1104□C9	7.1	5.0	3.0	Z	
0.12	ECHU1124□C9	7.1	5.0	3.4	Z	
0.15	ECHU1154□CV	7.1	6.3	3.4	Y	1000
0.18	ECHU1184□CV	7.1	6.3	4.0	Y	
0.22	ECHU1224□CV	7.1	6.3	4.8	Y	

↑ Cap. tol. code

■ Recommended for Land Dimensions (mm)

Size code	Land dimensions		
	Reflow soldering		
	A	B	C
E1,E2,E3a,E3	2.6	6.6	3.0
D1,D2,D3,D4,D5	3.8	7.8	3.8
Z	4.5	9.0	4.6
Y	4.5	9.0	5.7

\* It is not warrantable that you can mount the capacitor without trouble under all the mounting condition when "Recommender for Land dimensions" is adopted.

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.