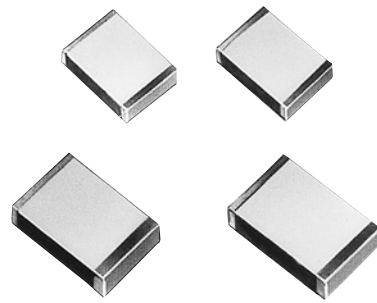


Stacked Metallized PPS Film Chip Capacitor

Series : **ECHU(C)**



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

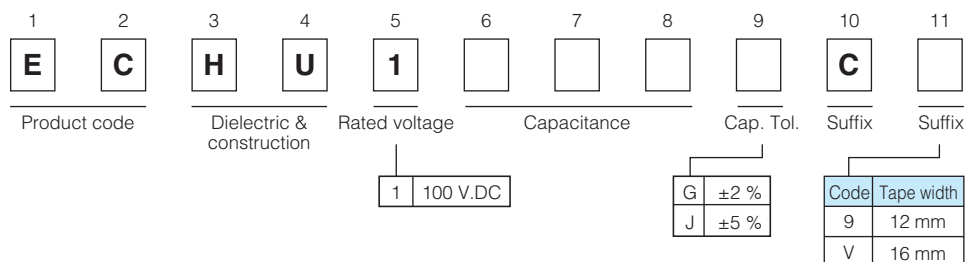
Features

- 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 part number

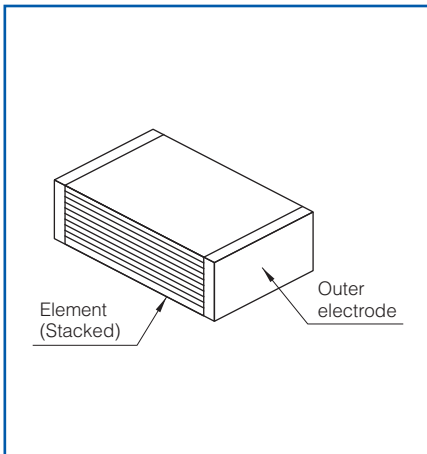


Specifications

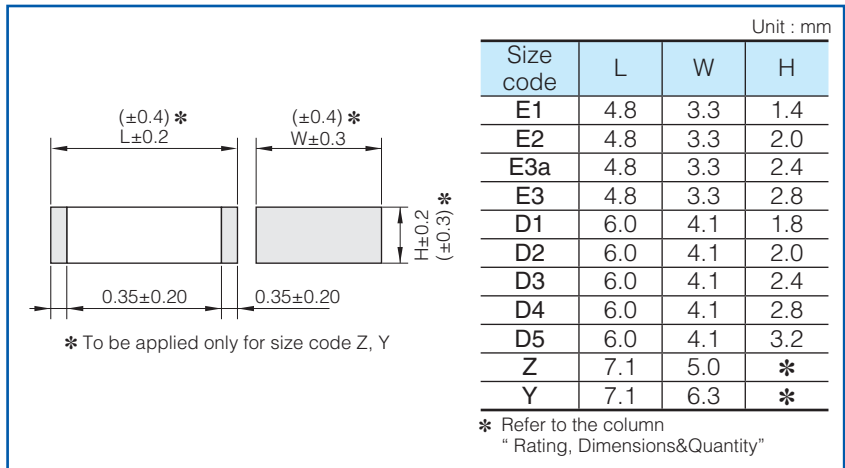
Category temp. range (Including temperature-rise on unit surface)	- 55 °C to +105 °C
Rated voltage	100 V.DC
Capacitance range	0.010 μF to 0.22 μF (E12)
Capacitance tolerance	±2 %(G), ±5 %(J)
Dissipation factor (tan δ)	tan δ ≤ 0.6 % (20 °C, 1 kHz)
Withstand voltage	Between terminals : Rated volt. (V.DC)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



Taping specification for automatic mounting

Refer to the page of taping specifications

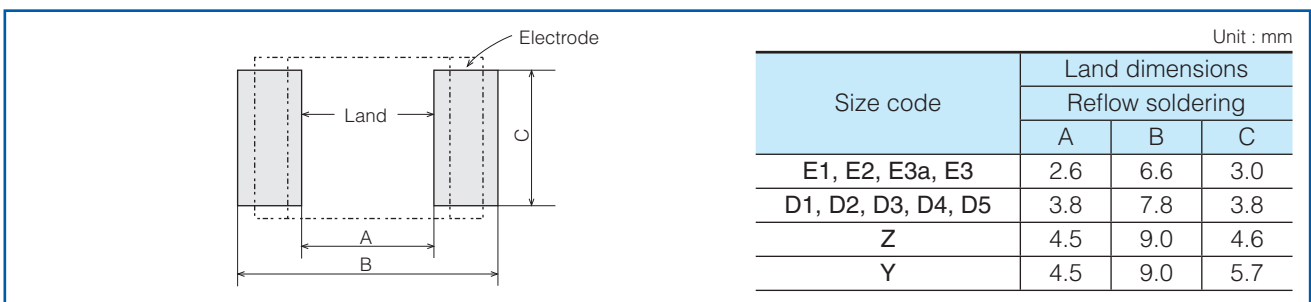
Rating · Dimensions · Quantity

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

Capacitance (μ F)	Part No.	Rated voltage 100 V.DC			Size code	Q'ty
		Dimensions (mm)				
		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	
0.039	ECHU1393□C9	6.0	4.1	2.0	D2	3000
0.047	ECHU1473□C9	6.0	4.1	2.4	D3	
0.056	ECHU1563□C9	6.0	4.1	2.8	D4	
0.068	ECHU1683□C9	6.0	4.1	3.2	D5	2000
0.082	ECHU1823□C9	7.1	5.0	2.8	Z	
0.10	ECHU1104□C9	7.1	5.0	3.0	Z	
0.12	ECHU1124□C9	7.1	5.0	3.4	Z	1500
0.15	ECHU1154□CV	7.1	6.3	3.4	Y	
0.18	ECHU1184□CV	7.1	6.3	4.0	Y	
0.22	ECHU1224□CV	7.1	6.3	4.8	Y	1000

* □ : Capacitance tolerance code

Recommended for land dimensions



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

Guidelines and precautions regarding the technical information and use of our products described in this online catalog.

- If you want to use our products described in this online catalog for applications requiring special qualities or reliability, or for applications where the failure or malfunction of the products may directly jeopardize human life or potentially cause personal injury (e.g. aircraft and aerospace equipment, traffic and transportation equipment, combustion equipment, medical equipment, accident prevention, anti-crime equipment, and/or safety equipment), it is necessary to verify whether the specifications of our products fit to such applications. Please ensure that you will ask and check with our inquiry desk as to whether the specifications of our products fit to such applications use before you use our products.
- The quality and performance of our products as described in this online catalog only apply to our products when used in isolation. Therefore, please ensure you evaluate and verify our products under the specific circumstances in which our products are assembled in your own products and in which our products will actually be used.
- If you use our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you set up protection circuits and redundancy circuits in order to ensure safety of your equipment.
- The products and product specifications described in this online catalog are subject to change for improvement without prior notice. Therefore, please be sure to request and confirm the latest product specifications which explain the specifications of our products in detail, before you finalize the design of your applications, purchase, or use our products.
- The technical information in this online catalog provides examples of our products' typical operations and application circuits. We do not guarantee the non-infringement of third party's intellectual property rights and we do not grant any license, right, or interest in our intellectual property.
- If any of our products, product specifications and/or technical information in this online catalog is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially with regard to security and export control, shall be observed.

<Regarding the Certificate of Compliance with the EU RoHS Directive/REACH Regulations>

- The switchover date for compliance with the RoHS Directive/REACH Regulations varies depending on the part number or series of our products.
- When you use the inventory of our products for which it is unclear whether those products are compliant with the RoHS Directive/REACH Regulation, please select "Sales Inquiry" in the website inquiry form and contact us.

We do not take any responsibility for the use of our products outside the scope of the specifications, descriptions, guidelines and precautions described in this online catalog.
