

Stacked Metallized PEN Film Chip Capacitor

Type: **ECWU(X)**

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

■Features

- Small in size (minimum size 3.2 mm × 1.6 mm)
- 85 °C, 85 %RH, W.V. × 1.0 for 500 hours
- For reflow soldering
- RoHS directive compliant

■Recommended Applications

- General purpose (Coupling, By-pass)

■Explanation of Part Numbers

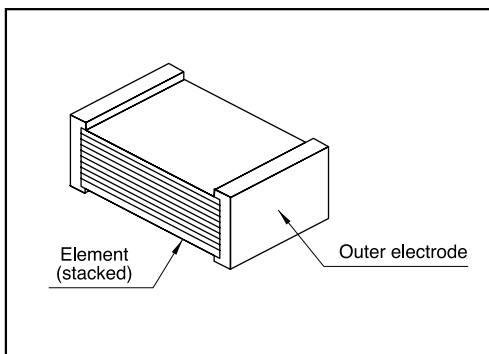
1	2	3	4	5	6	7	8	9	10	11
E	C	W	U	1				J	X	5
Product code		Dielectric & construction		Rated voltage		Capacitance		Cap. Tol.	Suffix	Suffix
				1 100 VDC				J ±5 %		
										Tape width
										5 8 mm

■Specifications

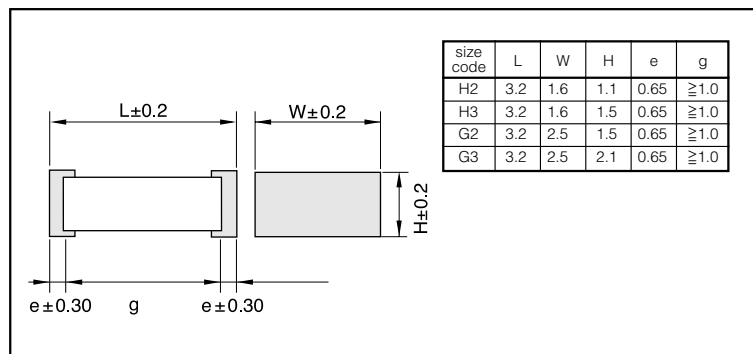
Category temp. range (Including temperature-rise on unit surface)	−55 °C to +105 °C
Rated voltage	100 VDC
Capacitance range	0.0010 μF to 0.010 μF (E12)
Capacitance tolerance	±5 % (J)
Withstand voltage	Between terminals : Rated volt. (VDC)×150 % 60 s
Dissipation factor (tanδ)	tanδ ≤ 1.0 % (20 °C, 1 kHz)
Insulation resistance (IR)	IR ≥ 3000 MΩ (20 °C, 100 VDC, 60 s)
Soldering conditions	Reflow soldering : 240 °C max. and 60 s max. at more than 220 °C (Temp. at cap. surface) (Please consult us for Reflow 250 °C max product.)

* 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.

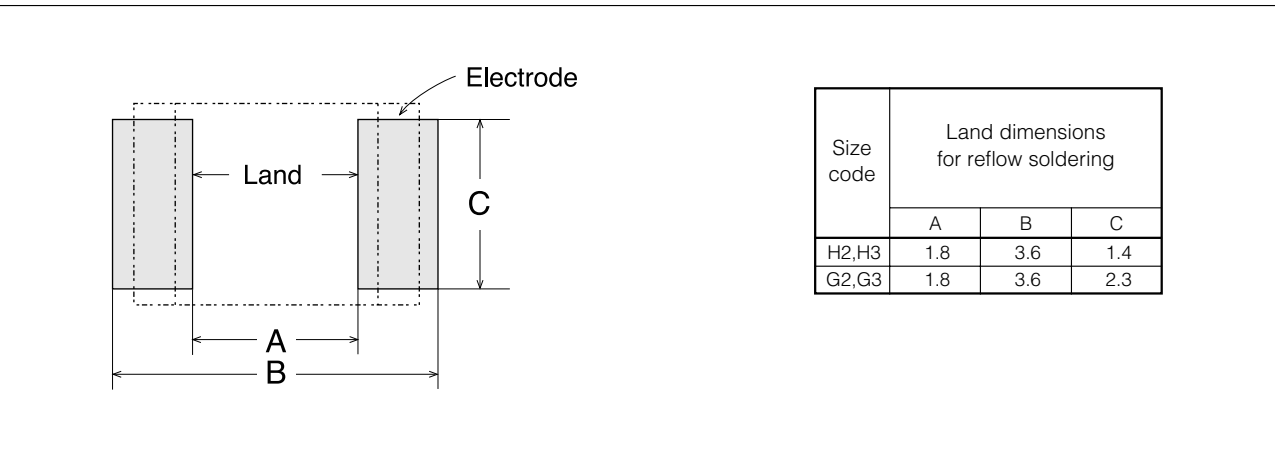
■Rating, Dimensions & Quantity/Reel

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

Cap. (μF)	Rated volt. 100 VDC					
	Part No.	Dimensions (mm)			Code	Q'ty
		L	W	H		
0.0010	ECWU1102JX5	3.2	1.6	1.1	H2	3000
0.0012	ECWU1122JX5	3.2	1.6	1.1	H2	
0.0015	ECWU1152JX5	3.2	1.6	1.1	H2	
0.0018	ECWU1182JX5	3.2	1.6	1.1	H2	
0.0022	ECWU1222JX5	3.2	1.6	1.1	H2	
0.0027	ECWU1272JX5	3.2	1.6	1.1	H2	
0.0033	ECWU1332JX5	3.2	1.6	1.5	H3	2000
0.0039	ECWU1392JX5	3.2	1.6	1.5	H3	
0.0047	ECWU1472JX5	3.2	1.6	1.5	H3	
0.0056	ECWU1562JX5	3.2	2.5	1.5	G2	
0.0068	ECWU1682JX5	3.2	2.5	1.5	G2	
0.0082	ECWU1822JX5	3.2	2.5	2.1	G3	
0.010	ECWU1103JX5	3.2	2.5	2.1	G3	

cap. $\geq$ 0.012 μF : Please use 100 VDC rating of ECWU(C)

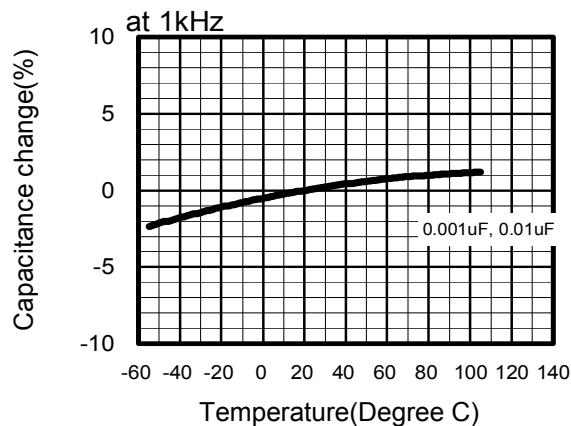
■Recommended for Land Dimensions (mm)



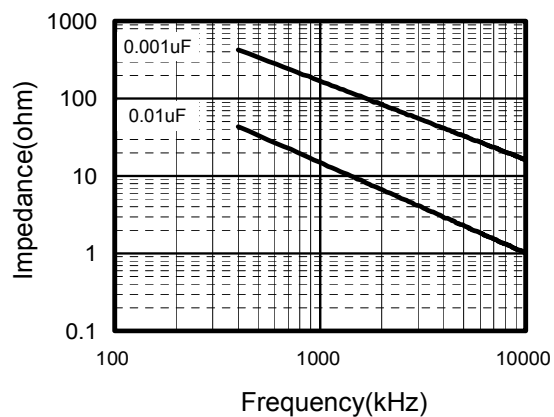
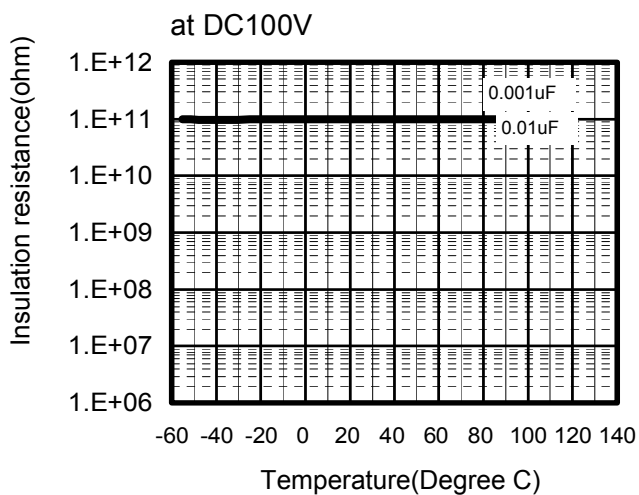
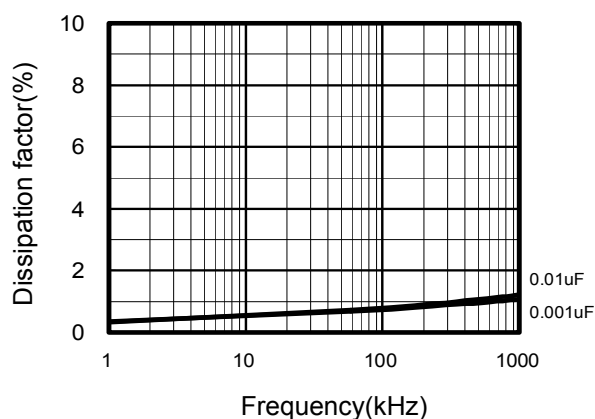
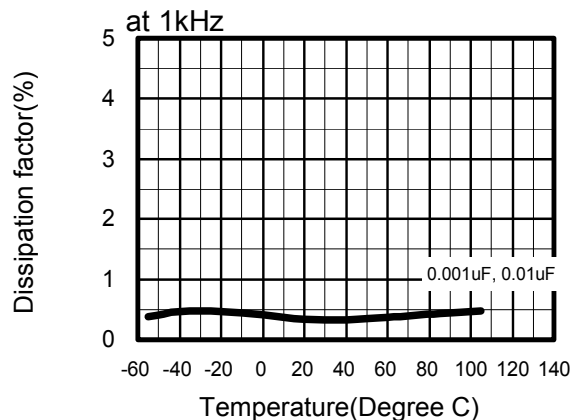
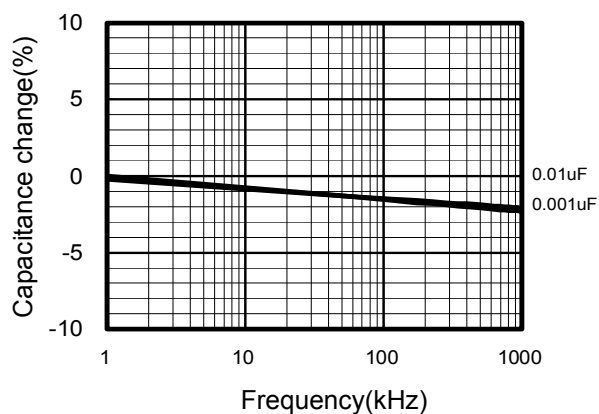
✱ It is not warrantable that you can mount the capacitor without trouble under all the mounting condition when "Recommender for Land dimensions" is adopted.

Electrical Characteristics <Typical Data >

Temperature Characteristics

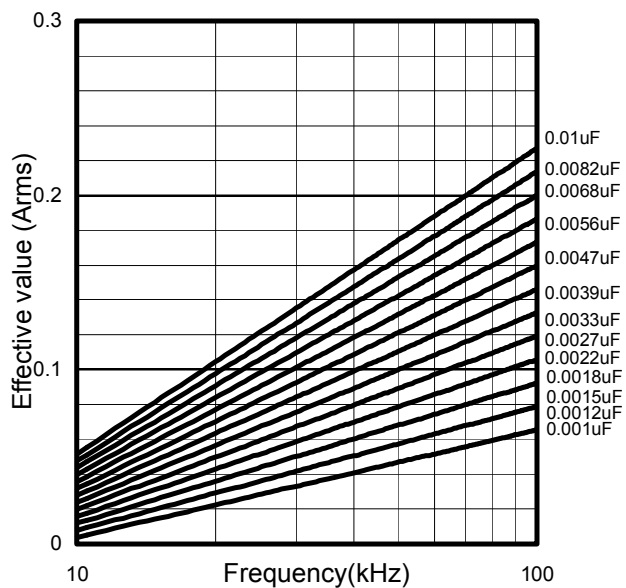


Frequency Characteristics



Applicable Specifications

Permissible Current



Pulse Handling Capability (dv/dt)

(Max 10000cycles)

Rating Voltage	Capacitance Value (μF)	Code	dV/dt (V/μs)	Current(A _{0-P})
DC 100V	0.0010	102	1000	1.00
	0.0012	122	920	1.10
	0.0015	152	830	1.25
	0.0018	182	760	1.37
	0.0022	222	690	1.52
	0.0027	272	630	1.70
	0.0033	332	570	1.88
	0.0039	392	530	2.07
	0.0047	472	480	2.26
	0.0056	562	450	2.52
	0.0068	682	410	2.79
	0.0082	822	370	3.03
	0.0100	103	340	3.40

*Please consult Panasonic if your condition exceeds the above

*The current(0-P) value is calculated using nominal capacitance.