

Chip

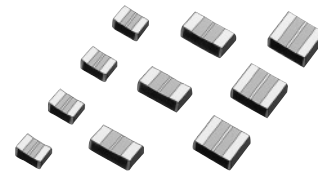
Stacked Metallized Plastic Film Chip Capacitor

Type : **ECPU(A)**

Stacked dielectric and inner electrode with simple mold - less construction

■Features

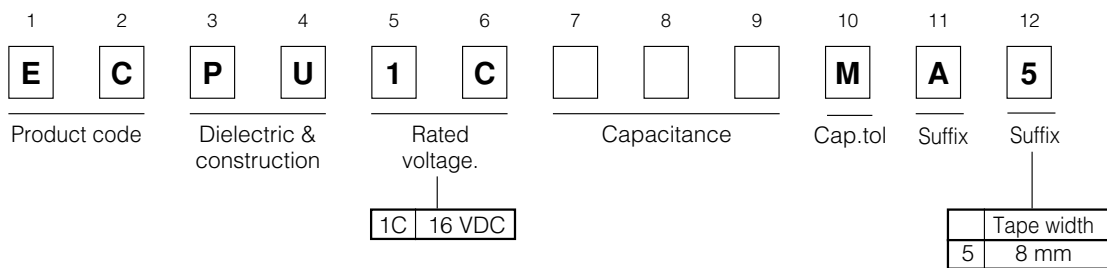
- Low ESR
- Max. capacitance values 1.0 μF
- Smallest package size in film capacitors 3225/1.0 μF
- For reflow soldering
- RoHS directive compliant



■Recommended Applications

- Noise suppressor
- Coupling

■Explanation of Part Numbers

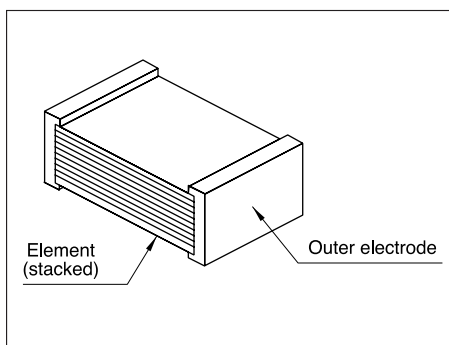


■Specifications

Category temp. range (Including temperature-rise on unit surface)	- 40 °C to + 85 °C
Rated voltage	16 VDC
Capacitance range	0.10 μF to 1.0 μF (E6)
Capacitance tolerance	$\pm 20\%$ (M)
Dissipation factor ($\tan\delta$)	$\tan\delta \leq 1.5\%$ (20 °C, 1 kHz)
Withstand voltage	Between terminals: Rated volt (VDC) $\times 175\%$ 1 s to 5 s
Insulation resistance (IR)	C $\leq 0.33 \mu\text{F}$: IR $\geq 1000 \text{ M}\Omega$ (20 °C, 10 VDC, 60 s) C $> 0.33 \mu\text{F}$: IR $\geq 300 \text{ M}\Omega \cdot \mu\text{F}$ (20 °C, 10 VDC, 60 s)
Soldering conditions	Reflow soldering : 240 °C max. and 30 sec 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".

■Construction



■Dimensions in mm (not to scale)

Size code	L	W	H	e	g
J1	2.0	1.25	1.0	0.45	≥ 0.6
H1	3.2	1.6	0.8	0.65	≥ 1.0
H2	3.2	1.6	1.0	0.65	≥ 1.0
H3	3.2	1.6	1.4	0.65	≥ 1.0
G2	3.2	2.5	1.4	0.65	≥ 1.0

* To be applied only for size code J1

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.

■Taping Specification for Automatic Mounting

Refer to the page of taping specifications.

■Rating, Dimensions & Quantity/Reel

Part No.	Cap. (μ F).	Dimensions (mm)				Quantity
		L	W	H	Size Code	
ECPU1C104MA5	0.10	2.0	1.25	1.0	J1	3000
ECPU1C154MA5	0.15	3.2	1.6	0.8	H1	
ECPU1C224MA5	0.22	3.2	1.6	0.8	H1	
ECPU1C334MA5	0.33	3.2	1.6	1.0	H2	
ECPU1C474MA5	0.47	3.2	1.6	1.4	H3	2000
ECPU1C684MA5	0.68	3.2	1.6	1.4	H3	
ECPU1C105MA5	1.0	3.2	2.5	1.4	G2	

■Recommended for Land Dimensions (mm)

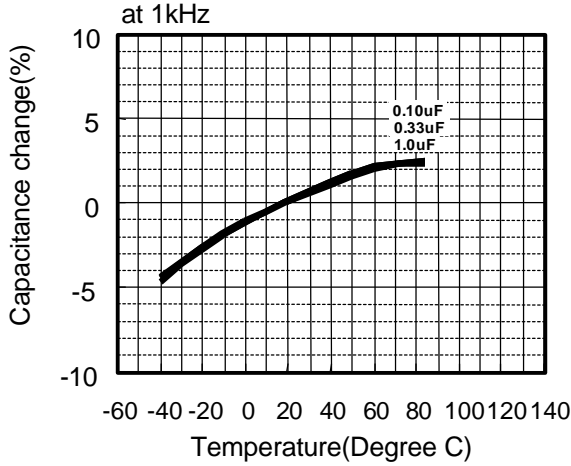
Size Code	Land dimensions for reflow soldering		
	A	B	C
J1	0.8	2.4	1.1
H1	1.8	3.6	1.4
H2	1.8	3.6	1.4
H3	1.8	3.6	1.4
G2	1.8	3.6	2.3

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

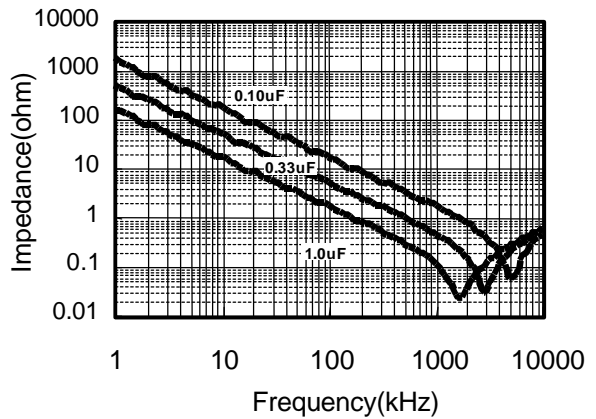
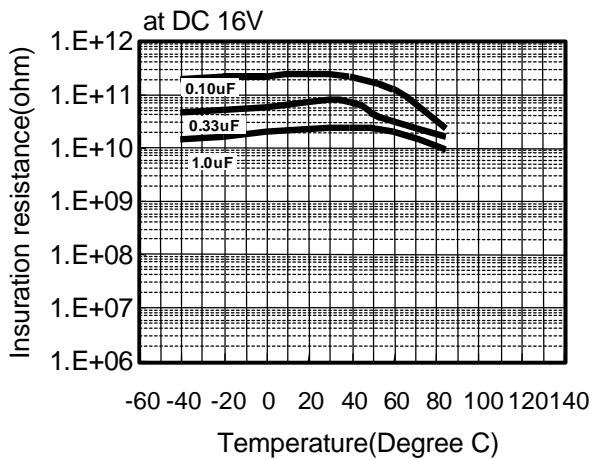
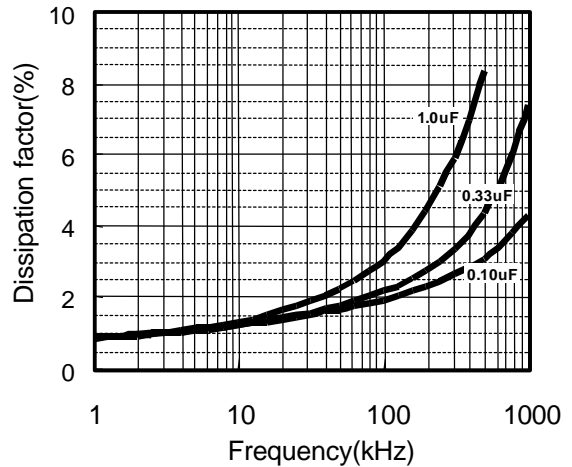
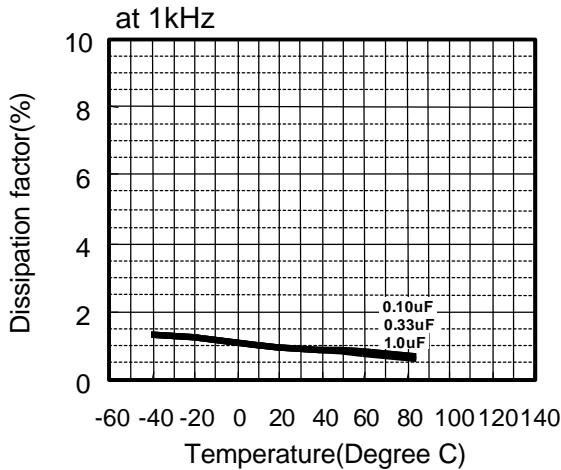
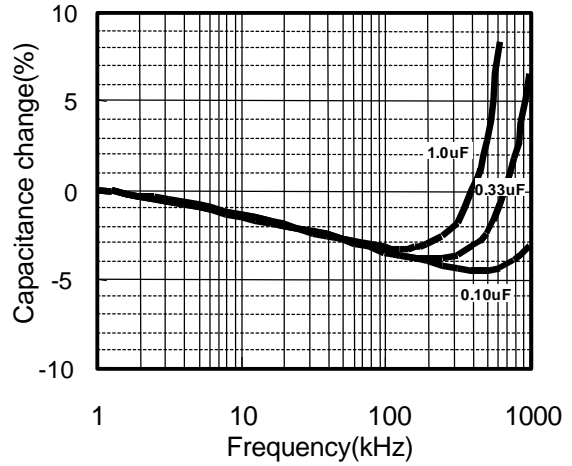
EPCU (A) Type DC16V series (Stacked Metallized Film)

Electrical Characteristics <Typical Data >

Temperature Characteristics

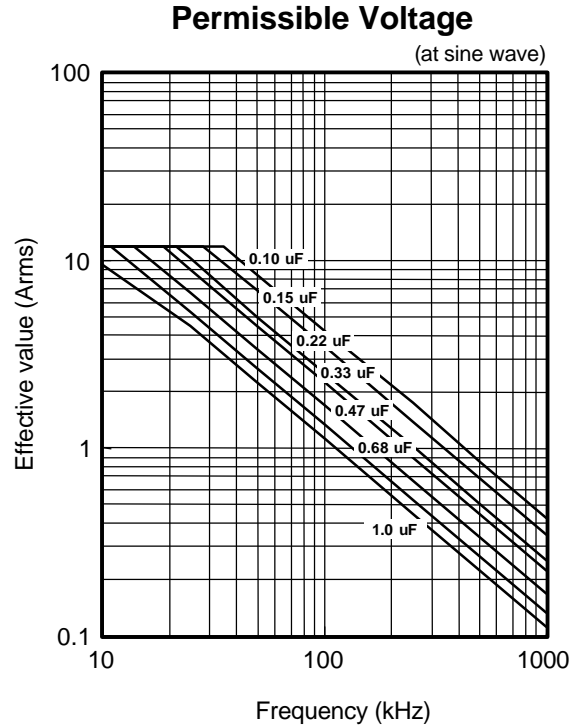
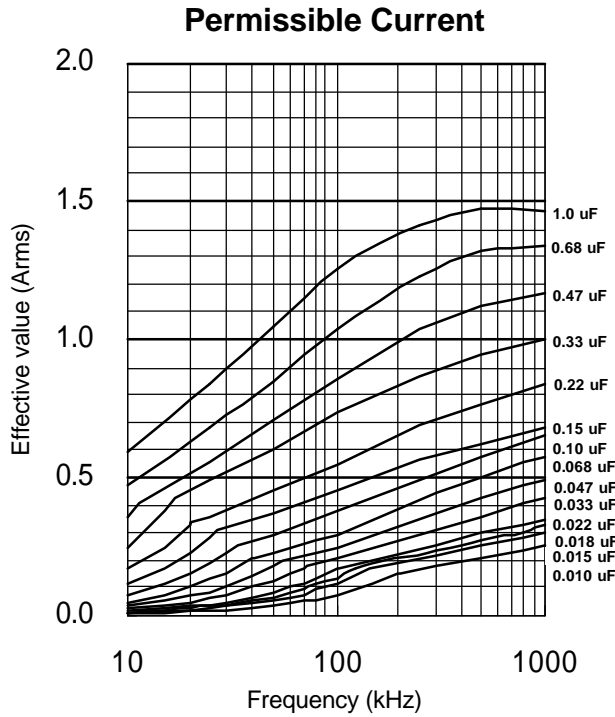


Frequency Characteristics



ECPU (A) Type DC16V series (Stacked Metallized Film)

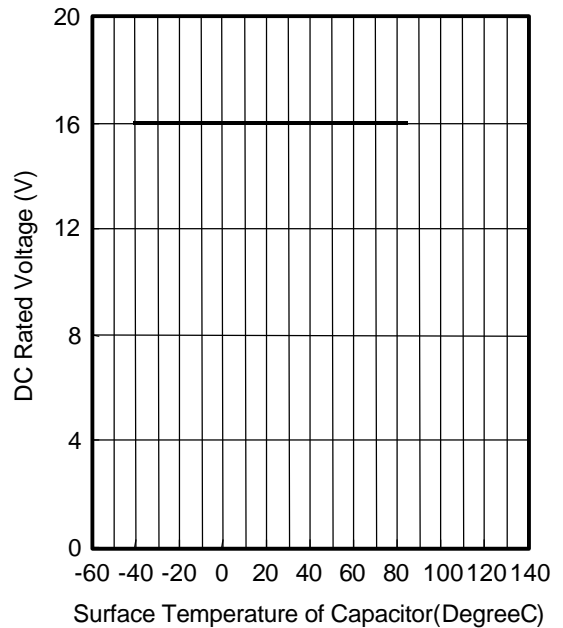
Applicable Specifications



**Pulse Handling Capability (dv/dt)
(Max 10000cycles)**

Rating Voltage	Capacitance Value(uF)	Code	dv/dt(V/us)	Current _(0-P) (A)
DC 16V	0.10	104	19	1.9
	0.15	154	15	2.3
	0.22	224	13	2.9
	0.33	334	10	3.3
	0.47	474	7	3.3
	0.68	684	5	3.4
	1.0	105	3	3.0

Voltage Derating by Temperature



* Please consult Panasonic if your condition exceeds the above spec.
 *Permissible voltage graph is the case of sine waveform. When you use this product, peak voltage must not exceed DC rated voltage.
 *The current_(0-P) value is calculated using nominal capacitance.

Mouser Electronics

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Panasonic:

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[ECP-U1C684MA5](#) [ECP-U1C154MA5](#)