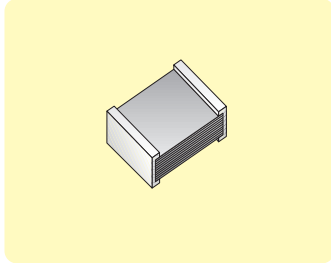


PANASONIC type ECPU (0805, 1206, 1210)

Surface mount capacitors manufactured with a stacked plastic film and offering excellent levels of capacitance within a small package. Useful as an alternative to tantalum devices. Covers a range of three industry standard chip sizes with capacitance values up to 1.0 μ F. The ECPU devices may be used in many applications such as noise suppression, coupling and areas where a low ESR capacitor is required. Suitable for both wave and reflow soldering, the components are supplied taped and reeled.



- ◆ Stacked plastic film
- ◆ Alternative to tantalum
- ◆ Excellent package size/capacitance ratio
- ◆ Industry standard chip sizes
- ◆ Working voltage **16V**
- ◆ Capacitance tolerance **20%**
- ◆ Suitable for wave and reflow soldering
- ◆ Supplied taped & reeled

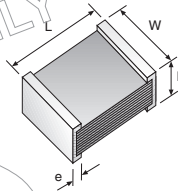
Specification

Working voltage	16Vdc
Capacitance tolerance	±20%
Operating temperature range	-40°C to +85°C
Insulation resistance.....	≥1000M Ω ($\leq$ 0.33 μ F)
	≥300M Ω / μ F (>0.33 μ F)
Dissipation factor	≤1.5% at 1kHz

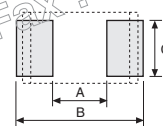
Packaging

TAPE : 8mm wide, 4mm pitch

REEL : 178mm dia.

Dimensions (mm)

Chip Size	Values	L	W	H	e
0805	0.1 μ F	2.0	1.25	1.0	0.45
1206	0.15 μ F - 0.22 μ F	3.2	1.6	0.8	0.65
	0.33 μ F			1.0	
	0.47 μ F - 0.68 μ F			1.4	
1210	1.0 μ F	3.2	2.5	1.4	

Pad Pattern

Chip Size	A	B	C
0805	0.8	2.4	1.1
1206	1.8	3.6	1.4
1210	1.8	3.6	2.3

0805Value
(μ F)**16 Volt**

0.1

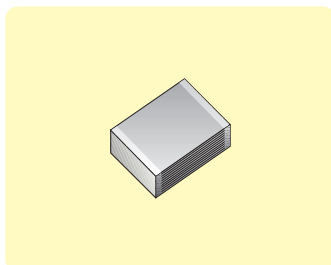
Manf. Part No. &
anglia Order Code**ECPU1C104MA5****1206**Value
(μ F)**16 Volt**0.15
0.22
0.33
0.47
0.68Manf. Part No. &
anglia Order Code**ECPU1C154MA5**
ECPU1C224MA5
ECPU1C334MA5
ECPU1C474MA5
ECPU1C684MA5**1210**Value
(μ F)**16 Volt**

1.0

Manf. Part No. &
anglia Order Code**ECPU1C105MA5**

PANASONIC type ECHU (0603, 0805, 1206, 1210, 1913, 2416)

Surface mount capacitors in a wide range of industry standard chip sizes, which utilise a stacked metallised PPS film to give high performance. The capacitors feature an excellent operating temperature range of -55°C to +125°C and are available in values up to 0.22μF with a choice of voltage rating and capacitance tolerance. Suitable for reflow soldering, the devices are supplied taped and reeled.

**EXPANDED
RANGE**


- ◆ Stacked metallised film
- ◆ Excellent performance/size characteristics
- ◆ Industry standard chip sizes
- ◆ Working voltage **16V & 50V**
- ◆ Choice of capacitance tolerance **2% or 5%**
- ◆ Suitable for reflow soldering
- ◆ Supplied taped & reeled

Specification

Working voltage	16Vdc/12Vac
	50Vdc/40Vac
Capacitance tolerance	±2% or ±5%
Operating temperature range	-55°C to +125°C
Insulation resistance.....	≥3000MΩ
Dissipation factor	≤0.6% at 1kHz

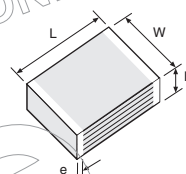
Packaging

TAPE :

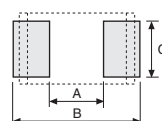
Chip Size	Width mm	Pitch mm
0603	8.0	4.0
0805		
1206		
1210		
1913	12.0	8.0
2416		

REEL :

Chip Size	Dia. mm
0603	178
0805	
1206	
1210	
1913	330
2416	

Dimensions (mm)

Chip Size	Values	L	W	H	e
0603	100pF - 2700pF	1.6	0.8	0.7	0.35
0805	100pF - 6800pF 8200pF - 0.01μF	2.0	1.25	0.9 1.1	0.45
1206	3300pF - 6800pF 8200pF - 0.01μF 0.012μF - 0.022μF 0.027μF - 0.033μF 0.039μF - 0.047μF	3.2	1.6	0.9 1.1 1.1 1.5	0.65
1210	0.012μF - 0.015μF 0.018μF - 0.027μF 0.033μF - 0.039μF 0.056μF - 0.068μF 0.082μF - 0.1μF	3.2	2.5	1.1 1.5 2.1 1.5 2.1	0.65
1913	0.047μF 0.056μF - 0.068μF 0.082μF 0.1μF	4.8	3.3	1.4 2.0 2.4 2.8	0.35
2416	0.12μF 0.15μF 0.18μF 0.22μF	6.0	4.1	1.8 2.4 2.8 3.2	0.35

Pad Pattern

Chip Size	A	B	C
0603	0.6	2.0	0.7
0805	0.8	2.4	1.1
1206	1.8	3.6	1.4
1210	1.8	3.6	2.3
1913	2.6	6.6	3.0
2416	3.8	7.8	3.8

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0603

Value (pF) Manf. Part No. & anglia Order Code
2% tolerance 5% tolerance

16 Volt

100	ECHU1C101GX5	ECHU1C101JX5
120	ECHU1C121GX5	ECHU1C121JX5
150	ECHU1C151GX5	ECHU1C151JX5
180	ECHU1C181GX5	ECHU1C181JX5
220	ECHU1C221GX5	ECHU1C221JX5
270	ECHU1C271GX5	ECHU1C271JX5
330	ECHU1C331GX5	ECHU1C331JX5
390	ECHU1C391GX5	ECHU1C391JX5
470	ECHU1C471GX5	ECHU1C471JX5
560	ECHU1C561GX5	ECHU1C561JX5
680	ECHU1C681GX5	ECHU1C681JX5
820	ECHU1C821GX5	ECHU1C821JX5
1000	ECHU1C102GX5	ECHU1C102JX5
1200	ECHU1C122GX5	ECHU1C122JX5
1500	ECHU1C152GX5	ECHU1C152JX5
1800	ECHU1C182GX5	ECHU1C182JX5
2200	ECHU1C222GX5	ECHU1C222JX5
2700	ECHU1C272GX5	ECHU1C272JX5

0805

Value (pF) Manf. Part No. & anglia Order Code
2% tolerance 5% tolerance

50 Volt

100	ECHU1H101GX5	ECHU1H101JB5
120	ECHU1H121GX5	ECHU1H121JB5
150	ECHU1H151GX5	ECHU1H151JB5
180	ECHU1H181GX5	ECHU1H181JB5
220	ECHU1H221GX5	ECHU1H221JB5
270	ECHU1H271GX5	ECHU1H271JB5
330	ECHU1H331GX5	ECHU1H331JB5
390	ECHU1H391GX5	ECHU1H391JB5
470	ECHU1H471GX5	ECHU1H471JB5
560	ECHU1H561GX5	ECHU1H561JB5
680	ECHU1H681GX5	ECHU1H681JB5
820	ECHU1H821GX5	ECHU1H821JB5
1000	ECHU1H102GX5	ECHU1H102JB5
1200	ECHU1H122GX5	ECHU1H122JB5
1500	ECHU1H152GX5	ECHU1H152JB5
1800	ECHU1H182GX5	ECHU1H182JB5
2200	ECHU1H222GX5	ECHU1H222JB5
2700	ECHU1H272GX5	ECHU1H272JB5

16 Volt

3300	ECHU1C332GX5	ECHU1C332JX5
3900	ECHU1C392GX5	ECHU1C392JX5
4700	ECHU1C472GX5	ECHU1C472JX5
5600	ECHU1C562GX5	ECHU1C562JX5
6800	ECHU1C682GX5	ECHU1C682JX5
8200	ECHU1C822GX5	ECHU1C822JX5
(μF)		
0.01	ECHU1C103GX5	ECHU1C103JX5

N.B. Part numbers ending B5 or B9 will be changing to X5 or C9 during the life of this Product Guide.

1206

Value (pF) Manf. Part No. & anglia Order Code
2% tolerance 5% tolerance

50 Volt

3300	ECHU1H332GX5	ECHU1H332JB5
3900	ECHU1H392GX5	ECHU1H392JB5
4700	ECHU1H472GX5	ECHU1H472JB5
5600	ECHU1H562GX5	ECHU1H562JB5
6800	ECHU1H682GX5	ECHU1H682JB5
8200	ECHU1H822GX5	ECHU1H822JB5
(μF)		
0.01	ECHU1H103GX5	ECHU1H103JB5
16 Volt		
0.012	ECHU1C123GX5	ECHU1C123JX5
0.015	ECHU1C153GX5	ECHU1C153JX5
0.018	ECHU1C183GX5	ECHU1C183JX5
0.022	ECHU1C223GB5	ECHU1C223JB5
0.027	ECHU1C273GX5	ECHU1C273JX5
0.033	ECHU1C333GB5	ECHU1C333JB5
0.039	ECHU1C393GX5	ECHU1C393JX5
0.047	ECHU1C473GX5	ECHU1C473JX5

1210

Value (μF) Manf. Part No. & anglia Order Code
2% tolerance 5% tolerance

50 Volt

0.012	ECHU1H123GX5	ECHU1H123JX5
0.015	ECHU1H153GX5	ECHU1H153JX5
0.018	ECHU1H183GX5	ECHU1H183JX5
0.022	ECHU1H223GX5	ECHU1H223JX5
0.027	ECHU1H273GX5	ECHU1H273JB5
0.033	ECHU1H333GX5	ECHU1H333JX5
0.039	ECHU1H393GX5	ECHU1H393JX5
16 Volt		
0.056	ECHU1C563GX5	ECHU1C563JX5
0.068	ECHU1C683GX5	ECHU1C683JX5
0.082	ECHU1C823GX5	ECHU1C823JX5
0.1	ECHU1C104GX5	ECHU1C104JX5

1913

Suitable for both wave and reflow soldering.

Value (μF) Manf. Part No. & anglia Order Code
2% tolerance 5% tolerance

50 Volt

0.047	ECHU1H473GC9	ECHU1H473JB9
0.056	ECHU1H563GC9	ECHU1H563JB9
0.068	ECHU1H683GC9	ECHU1H683JB9
0.082	ECHU1H823GC9	ECHU1H823JB9
0.1	ECHU1H104GC9	ECHU1H104JB9

2416

Suitable for both wave and reflow soldering.

Value (μF) Manf. Part No. & anglia Order Code
2% tolerance 5% tolerance

50 Volt

0.12	ECHU1H124GC9	ECHU1H124JC9
0.15	ECHU1H154GC9	ECHU1H154JC9
0.18	ECHU1H184GC9	ECHU1H184JC9
0.22	ECHU1H224GC9	ECHU1H224JC9