

| ITEM CODE | CAPACITANCE | | DIMENSIONS | | | | | TYPE |
|----------------------|-------------|-------|------------|-----------|----------|------------|---------|----------------|
| | μF | (*) | L | W | H | e_1, e_2 | g | |
| ECHU 1C101 () X () | 0.0001 | (101) | 1.6±0.2 | 0.8 ±0.15 | 0.7±0.15 | 0.35±0.20 | 0.4min. | K ₁ |
| " 1C121 () X () | 0.00012 | (121) | " | " | " | " | " | " |
| " 1C151 () X () | 0.00015 | (151) | " | " | " | " | " | " |
| " 1C181 () X () | 0.00018 | (181) | " | " | " | " | " | " |
| " 1C221 () X () | 0.00022 | (221) | " | " | " | " | " | " |
| " 1C271 () X () | 0.00027 | (271) | " | " | " | " | " | " |
| " 1C331 () X () | 0.00033 | (331) | " | " | " | " | " | " |
| " 1C391 () X () | 0.00039 | (391) | " | " | " | " | " | " |
| " 1C471 () X () | 0.00047 | (471) | " | " | " | " | " | " |
| " 1C561 () X () | 0.00056 | (561) | " | " | " | " | " | " |
| " 1C681 () X () | 0.00068 | (681) | " | " | " | " | " | " |
| " 1C821 () X () | 0.00082 | (821) | " | " | " | " | " | " |
| " 1C102 () X () | 0.001 | (102) | " | " | " | " | " | " |
| " 1C122 () X () | 0.0012 | (122) | " | " | " | " | " | " |
| " 1C152 () X () | 0.0015 | (152) | " | " | " | " | " | " |
| " 1C182 () X () | 0.0018 | (182) | " | " | " | " | " | " |
| " 1C222 () X () | 0.0022 | (222) | " | " | " | " | " | " |
| " 1C272 () X () | 0.0027 | (272) | " | " | " | " | " | " |
| " 1C332 () X () | 0.0033 | (332) | 2.0±0.2 | 1.25±0.2 | 0.9±0.2 | 0.45±0.25 | 0.6min. | J ₁ |
| " 1C392 () X () | 0.0039 | (392) | " | " | " | " | " | " |
| " 1C472 () X () | 0.0047 | (472) | " | " | " | " | " | " |
| " 1C562 () X () | 0.0056 | (562) | " | " | " | " | " | " |
| " 1C682 () X () | 0.0068 | (682) | " | " | " | " | " | " |
| " 1C822 () X () | 0.0082 | (822) | " | " | 1.1±0.2 | " | " | J ₂ |
| " 1C103 () X () | 0.01 | (103) | " | " | " | " | " | " |
| " 1C123 () X () | 0.012 | (123) | 3.2±0.2 | 1.6 ±0.2 | 0.9±0.2 | 0.65±0.30 | 1.0min. | H ₁ |
| " 1C153 () X () | 0.015 | (153) | " | " | " | " | " | " |
| " 1C183 () X () | 0.018 | (183) | " | " | " | " | " | " |
| " 1C223 () X () | 0.022 | (223) | " | " | " | " | " | " |
| " 1C273 () X () | 0.027 | (273) | " | " | 1.1±0.2 | " | " | H ₂ |
| " 1C333 () X () | 0.033 | (333) | " | " | " | " | " | " |
| " 1C393 () X () | 0.039 | (393) | " | " | 1.5±0.2 | " | " | H ₃ |
| " 1C473 () X () | 0.047 | (473) | " | " | " | " | " | " |
| " 1C563 () X () | 0.056 | (563) | " | 2.5 ±0.2 | " | " | " | G ₂ |
| " 1C683 () X () | 0.068 | (683) | " | " | " | " | " | " |
| " 1C823 () X () | 0.082 | (823) | " | " | 2.1±0.2 | " | " | G ₃ |
| " 1C104 () X () | 0.1 | (104) | " | " | " | " | " | " |

5: ϕ 180mm Reel
7: ϕ 330mm Reel

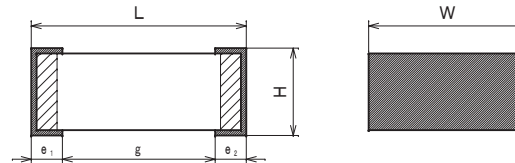
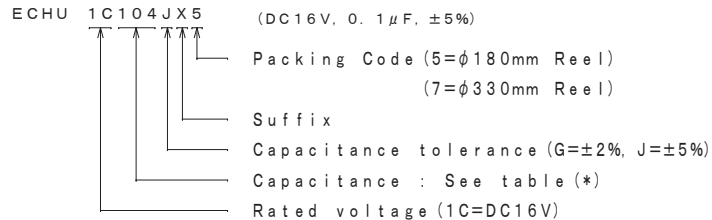
CONSTRUCTION

The capacitor is non-inductive construction, stacked with metallized plastic film dielectric, and has two outer electrodes.

PROPERTIES

- Capacitance : See table at 1kHz
- Capacitance tolerance : $\pm 2\%$ (G), $\pm 5\%$ (J)
- Rated voltage : DC16V
- Withstand voltage : Δ Rated voltage \times 150% for 60s
- Insulation resistance : $\geq 3,000\Omega$ at 20°C, DC10V for 60s
- Dissipation factor : $\leq 0.6\%$ at 1kHz, 20°C
- Category temperature : from -55°C to +125°C (including temperature rise on unit surface)

ITEM CODE NUMBER STRUCTURE



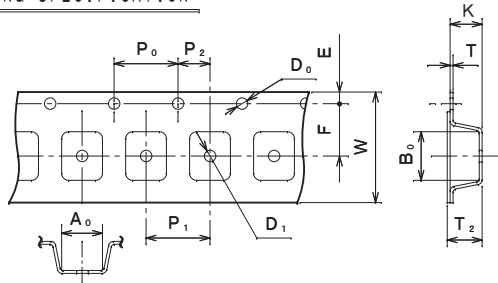
| ALTERATION | | |
|------------|--|--------------|
| ISSUE | DESCRIPTION | DATE |
| Δ | Addition (ECHU1C101~272) Addition (Packing Code "7" ϕ 330mm Reel) | Jun. 19 2002 |
| Δ | Company name changed | Oct. 1 2004 |
| Δ | Company name changed | Apr. 1 2005 |
| Δ | Company name changed Clerical error correction: Taping Dimension (K, Type) (T ₁ : 1.1±0.2-1.0±0.2 (K: 1.0±0.1-0.9±0.1)) | Apr. 1 2006 |
| Δ | Company name changed | Apr. 1 2008 |
| Δ | Company name changed | Apr. 1 2012 |
| Δ | Company name changed | Apr. 1 2013 |
| Δ | Company name changed Error correction: Withstand voltage | Apr. 1 2015 |
| Δ | Company name changed | Apr. 1 2022 |

SPECIFICATIONS No.

| | |
|---------------|-------------------------------------|
| DESIGN | M. MEKADA |
| CHECKED | YOSHIOA |
| APPROVAL | T. KATO |
| ESTABLISHMENT | Feb. 2, 1998 |
| TYPE NAME | ECHU 1C*** () X5 " 1C*** () X7 |
| NAME | FILM CHIP CAPACITOR ECHU (X) |
| DRAWING NAME | PRODUCT DRAWING |
| DRAWING No. | CW-H-802H (1/2) |

Film Capacitor Business Unit
Device Solutions Business Division
Panasonic Industry Co., Ltd.

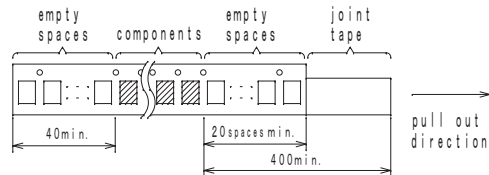
TAPING SPECIFICATION



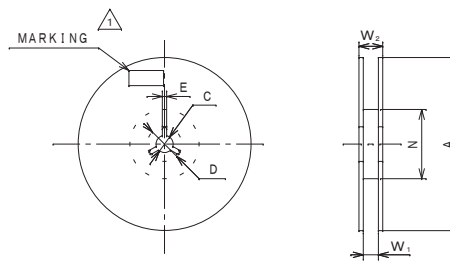
| TYPE | A ₀ | B ₀ | T | T ₂ | K |
|---------------------------------|----------------|--------------------|-------------|--------------------|--------------------|
| Δ K ₁ | 1.0 ± 0.1 | 1.85 ± 0.1 | 0.20 ± 0.05 | Δ 1.0 ± 0.2 | Δ 0.9 ± 0.1 |
| J ₁ | 1.55 ± 0.1 | 2.3 ± 0.1 | 0.25 ± 0.05 | 1.3 ± 0.2 | 1.2 ± 0.1 |
| J ₂ | " | " | " | 1.5 ± 0.2 | 1.4 ± 0.1 |
| H ₁ , H ₂ | 1.9 ± 0.1 | Δ 3.5 ± 0.1 | " | " | " |
| H ₃ | " | " | " | 1.9 ± 0.2 | 1.8 ± 0.1 |
| G ₂ | 2.8 ± 0.1 | " | " | " | " |
| G ₃ | " | Δ " | " | 2.5 ± 0.2 | 2.4 ± 0.1 |

| SYMBOL | DIMENSIONS | |
|-----------------------|-------------------------|--|
| | Δ K ₁ | J ₁ , J ₂ , H ₁ , H ₂ , H ₃ , G ₂ , G ₃ |
| W | 8.0 ± 0.3 | 8.0 ± 0.3 |
| F | 3.5 ± 0.05 | 3.5 ± 0.05 |
| E | 1.75 ± 0.1 | 1.75 ± 0.1 |
| P ₁ | — | 4.0 ± 0.1 |
| P ₂ | 2.0 ± 0.05 | 2.0 ± 0.05 |
| P ₀ | 4.0 ± 0.1 | 4.0 ± 0.1 |
| ϕ D ₀ | 1.5 $^{+0.1}_0$ | 1.5 $^{+0.1}_0$ |
| ϕ D ₁ | — | 1.0 $^{+0.2}_0$ |

EMPTY SPACE AND JOINT TAPE



PACKING SPECIFICATION



| PACKING CODE | PACKING |
|--------------|---|
| 5 | ϕ 180mm Reel 8mm Tape Width 4mm Pitch Plastic Taping |
| 7 | ϕ 330mm Reel 8mm Tape Width 4mm Pitch Plastic Taping |

DIMENSIONS

| SYMBOL | PACKING CODE "5" | Δ PACKING CODE "7" |
|----------------|--------------------------|---------------------------|
| A | 180.0 $^{-0.5}_0$ | 330.0 ± 2.0 |
| C | 13.0 ± 0.2 | 13.0 ± 0.2 |
| D | 21.0 ± 0.8 | 21.0 ± 0.8 |
| E | 2.0 ± 0.5 | 2.0 ± 0.5 |
| N | 60.0 $^{+1.0}_0$ | 80.0 ± 1.0 |
| W ₁ | Δ 9.0 $^{+1.0}_0$ | 9.4 ± 1.0 |
| W ₂ | 11.4 ± 1.0 | 13.4 ± 1.0 |

PACKING QUANTITY

| PACKING CODE | TYPE | REEL (p.c.s.) |
|--------------|---|---------------|
| 5 | K ₁ | 4,000 |
| | J ₁ , J ₂ , H ₁ , H ₂ | 3,000 |
| | H ₃ , G ₂ , G ₃ | 2,000 |
| 7 | K ₁ | 20,000 |
| | J ₁ , J ₂ , H ₁ , H ₂ | 12,000 |
| | H ₃ , G ₂ | 10,000 |
| | G ₃ | 6,000 |

REFERENCE

| | |
|-------------|-------------------------------------|
| NAME | FILM CHIP CAPACITOR ECHU (X) |
| TYPE NAME | ECHU 1C*** () X5 " 1C*** () X7 |
| DRAWING No. | CW-H-802H (2/2) |

Film Capacitor Business Unit
Device Solutions Business Division
Panasonic Industry Co., Ltd.