

Film Chip Capacitor

Type: **ECHU(X)**

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

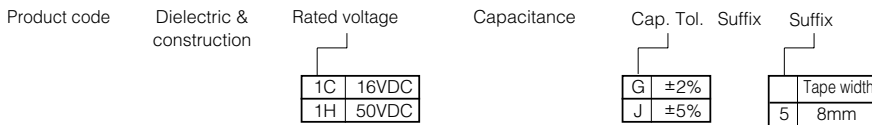
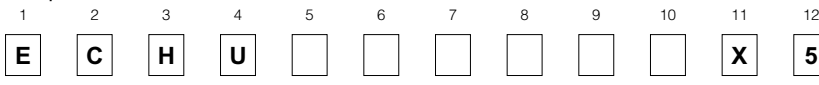
■Features

- Small in size (minimum size 2.0×1.25mm)
- 85°C, 85%RH, W.V. × 1.0 for 500 hours
- Applicable for reflow soldering

■Recommended Applications

- Time - constant
- Filtering
- Oscillation and resonance

■Explanation of Numbers

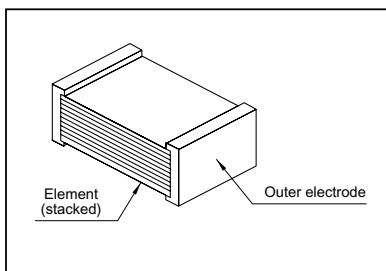


■Specifications

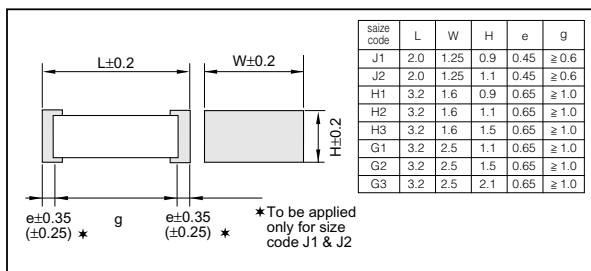
| | |
|-----------------------|---|
| Category temp. range | -55 to +125°C |
| Rated voltage | 16VDC, 50VDC |
| Capacitance range | 0.0001 to 0.1 μF (E12) |
| Capacitance tolerance | ±2%(G), ±5%(J) |
| Withstand voltage | Between terminals : Rated volt. (VDC)×175% 1 to 5s |
| Dissipation factor | ≤0.6% (20°C, 1kHz) |
| Insulation resistance | 16VDC : ≥ 3000MΩ (20°C, 10VDC 60s) 50VDC : ≥ 3000MΩ (20°C, 50VDC 60s) |
| Soldering conditions | Reflow soldering : 260°C max. and 30sec max. at more than 230°C (Temp. at cap. surface) |

* Flow soldering Type ECHU(B) is available. Please contact the home page (<http://www.maco.panasonic.co.jp>)

■Construction



■Dimensions in mm (not to scale)



■ Taping Specification for Automatic Insertion (Mounting)
Refer to the PDF file of the taping specification.

■ Rating, Dimensions & Quantity/Reel

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

| Cap. (μF) | Rated volt. 16VDC | | | | | | Rated volt. 50VDC | | | | | | | |
|------------------------|------------------------------------|-----------------|-----|------|-----------|------|-------------------|-----------------|-----|------|-----------|------|------|------|
| | Part No. | Dimensions (mm) | | | Size Code | Q'ty | Part No. | Dimensions (mm) | | | Size Code | Q'ty | | |
| | | L | W | H | | | | L | W | H | | | | |
| 0.0001 | Please use 50VDC rating of ECHU(X) | | | | | | ECHU1H101 | X5 | 2.0 | 1.25 | 0.9 | J1 | 3000 | |
| 0.00012 | | | | | | | ECHU1H121 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00015 | | | | | | | ECHU1H151 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00018 | | | | | | | ECHU1H181 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00022 | | | | | | | ECHU1H221 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00027 | | | | | | | ECHU1H271 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00033 | | | | | | | ECHU1H331 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00039 | | | | | | | ECHU1H391 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00047 | | | | | | | ECHU1H471 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00056 | | | | | | | ECHU1H561 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00068 | | | | | | | ECHU1H681 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.00082 | | | | | | | ECHU1H821 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.001 | | | | | | | ECHU1H102 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.0012 | | | | | | | ECHU1H122 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.0015 | | | | | | | ECHU1H152 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.0018 | | | | | | | ECHU1H182 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.0022 | | | | | | | ECHU1H222 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.0027 | | | | | | | ECHU1H272 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.0033 | | | | | | | ECHU1C332 | X5 | 2.0 | 1.25 | 0.9 | J1 | | 3000 |
| 0.0039 | | | | | | | ECHU1C392 | X5 | 2.0 | 1.25 | 0.9 | J1 | | |
| 0.0047 | ECHU1C472 | X5 | 2.0 | 1.25 | 0.9 | J1 | | | | | | | | |
| 0.0056 | ECHU1C562 | X5 | 2.0 | 1.25 | 0.9 | J1 | | | | | | | | |
| 0.0068 | ECHU1C682 | X5 | 2.0 | 1.25 | 0.9 | J1 | | | | | | | | |
| 0.0082 | ECHU1C822 | X5 | 2.0 | 1.25 | 1.1 | J2 | | | | | | | | |
| 0.01 | ECHU1C103 | X5 | 2.0 | 1.25 | 1.1 | J2 | | | | | | | | |
| 0.012 | ECHU1C123 | X5 | 3.2 | 1.6 | 0.9 | H1 | | | | | | | | |
| 0.015 | ECHU1C153 | X5 | 3.2 | 1.6 | 0.9 | H1 | | | | | | | | |
| 0.018 | ECHU1C183 | X5 | 3.2 | 1.6 | 0.9 | H1 | | | | | | | | |
| 0.022 | ECHU1C223 | X5 | 3.2 | 1.6 | 0.9 | H1 | 2000 | | | | | | | |
| 0.027 | ECHU1C273 | X5 | 3.2 | 1.6 | 1.1 | H2 | | | | | | | | |
| 0.033 | ECHU1C333 | X5 | 3.2 | 1.6 | 1.1 | H2 | | | | | | | | |
| 0.039 | ECHU1C393 | X5 | 3.2 | 1.6 | 1.5 | H3 | | | | | | | | |
| 0.047 | ECHU1C473 | X5 | 3.2 | 1.6 | 1.5 | H3 | | | | | | | | |
| 0.056 | ECHU1C563 | X5 | 3.2 | 2.5 | 1.5 | G2 | | | | | | | | |
| 0.068 | ECHU1C683 | X5 | 3.2 | 2.5 | 1.5 | G2 | | | | | | | | |
| 0.082 | ECHU1C823 | X5 | 3.2 | 2.5 | 2.1 | G3 | | | | | | | | |
| 0.1 | ECHU1C104 | X5 | 3.2 | 2.5 | 2.1 | G3 | | | | | | | | |
| | | | | | | | | | | | | | | |

Capacitance tolerance code

■ Example for Land Dimensions (mm)

