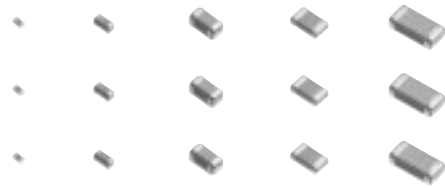


Multilayer Ceramic Capacitors (For General Electronic Equipment)

Series: **ECJ**



■ Features

- Small size and wide capacitance range
- High humidity resistance and long life
- Excellent solderability and resistance to soldering heat
- Low inductance (ESL) and excellent frequency characteristics
- RoHS compliant

■ Recommended Applications

- **Class 1 (T.C. Type)**
Tuned circuits, and filter circuitry, where low loss and high stability of capacitance and high insulation resistance is required
- **Class 2 (Hi-K Type)**
Coupling and By-passing

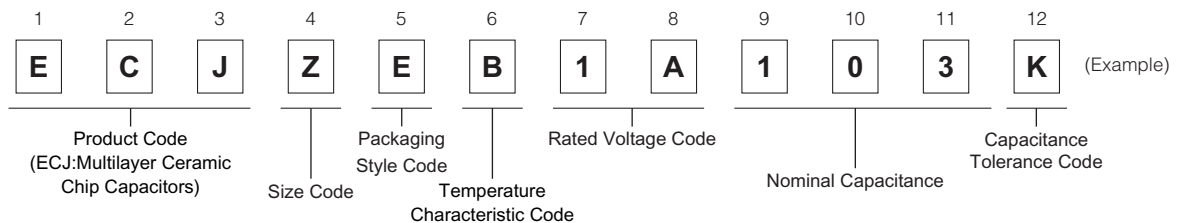
■ Handling Precautions

See Page 48 to 53

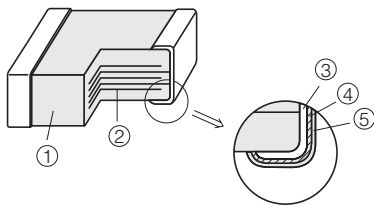
■ Packaging Specifications

See Page 45, 46, 56

■ Explanation of Part Numbers

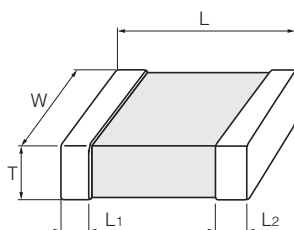


■ Construction



| No | Name | |
|----|--------------------|------------------------|
| ① | Ceramic dielectric | |
| ② | Internal electrode | |
| ③ | Terminal electrode | Substrate electrode |
| ④ | | Intermediate electrode |
| ⑤ | | External electrode |

■ Dimensions in mm (not to scale)



| Size Code | Size (EIA) | L | W | T | L ₁ , L ₂ |
|-----------|------------|-----------|-----------|-----------|---------------------------------|
| Z | 0201 | 0.60±0.03 | 0.30±0.03 | 0.30±0.03 | 0.15±0.05 |
| 0 | 0402 | 1.00±0.05 | 0.50±0.05 | 0.50±0.05 | 0.2±0.1 |
| 1 | 0603 | 1.6±0.1 | 0.8±0.1 | 0.8±0.1 | 0.3±0.2 |
| 2 | 0805 | 2.0±0.1 | 1.25±0.10 | 0.6±0.1 | 0.50±0.25 |
| | | | | 0.85±0.10 | |
| | | | | 1.25±0.10 | |
| | | 2.00±0.15 | 1.25±0.15 | 1.25±0.15 | |

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

00 Apr. 2008

■ Packaging Styles and Standard Packaging Quantities

Quantity (Taping: pcs./reel)

| Packaging Style Code | Packaging Styles | Size Thickness (mm) | 0201 | 0402 | 0603 | 0805 | | |
|----------------------|------------------|-------------------------------|--------|--------|-------|-------|--------|--------|
| | | | T=0.3 | T=0.5 | T=0.8 | T=0.6 | T=0.85 | T=1.25 |
| E | φ180 reel | Paper taping (Pitch: 2 mm) | 15,000 | 10,000 | — | — | — | — |
| V | | Paper taping (Pitch: 4 mm) | — | — | 4,000 | 5,000 | 4,000 | — |
| F | | Embossed taping (Pitch: 4 mm) | — | — | — | — | — | 3,000 |

φ330 reel and bulk case type : Please contact us

■ Temperature Characteristics

● Class 1

| Temperature Characteristic Code | Temperature Characteristics | | Temp. Coeff. (ppm/°C) | Rate of Capacitance change at each Temperature (%) | | | |
|---------------------------------|-----------------------------|-----------|-----------------------|--|-------|-------|-------|
| | | | | -25 °C | | 85 °C | |
| | | | | max. | min. | max. | min. |
| C | CΔ | ≥10 pF CG | 0± 30 | 0.33 | -0.14 | 0.20 | -0.20 |
| | | ≥4 pF CH | 0± 60 | 0.49 | -0.27 | 0.39 | -0.39 |
| | | 3 pF CJ | 0±120 | 0.82 | -0.54 | 0.78 | -0.78 |
| | | ≤2 pF CK | 0±250 | 1.54 | -1.13 | 1.63 | -1.63 |
| G | SL | | +350 to -1000 | — | — | 2.28 | -6.50 |

Temperature coefficient: calculated between 20 °C to 85 °C

For applicable "temperature characteristics", see the lists of standard products on page 13 to 19.

● Class 2

| Temperature Characteristic Code | Temperature Characteristics | Capacitance Change | Measurement Temperature Range | Reference Temperature |
|---------------------------------|-----------------------------|--------------------|-------------------------------|-----------------------|
| B | B | ±10 % | -25 to 85 °C | 20 °C |
| | X7R | ±15 % | -55 to 125 °C | 25 °C |
| | X5R | ±15 % | -55 to 85 °C | 25 °C |
| F | F | +30, -80 % | -25 to 85 °C | 20 °C |
| | Y5V | +22, -82 % | -30 to 85 °C | 25 °C |

For applicable "temperature characteristics", see the lists of standard products on page 13 to 19.

■ Rated Voltage

| Code | 1H | 1E | 1C | 1A | 0J |
|---------------|---------|---------|---------|---------|----------|
| Rated Voltage | DC 50 V | DC 25 V | DC 16 V | DC 10 V | DC 6.3 V |

■ Nominal Capacitance

| Ex | 0R5 | 010 | 100 | 104 |
|---------------------|--------|------|-------|---------------------|
| Nominal Capacitance | 0.5 pF | 1 pF | 10 pF | 100,000 pF (0.1 μF) |

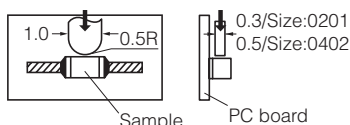
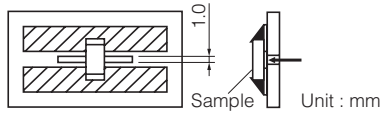
■ Capacitance Tolerance

| Class | Temperature Characteristics | | Tol. Code | Capacitance Tolerance |
|-------|-----------------------------|-------------------|--------------|-----------------------|
| 1 | CΔ, SL | Capacitance range | C ≤ 5 pF | C ±0.25 pF |
| | | | C ≤ 10 pF | D ±0.5 pF |
| | | | C = 10 pF | F ±1 pF |
| | | | C > 10 pF | J ±5 % |
| 2 | B, X7R, X5R | | K ±10 % | |
| | | | M ±20 % | |
| | F, Y5V | | Z +80, -20 % | |

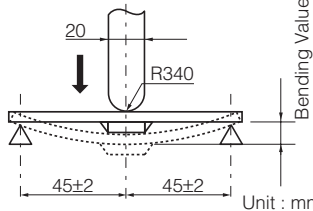
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

00 Apr. 2008

■ Specifications and Testing Methods

| Item | Specification | | Test Method | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|---------------------|-------------|-------------|---------------------|--------------|--------------|-------------------|---------------|---------------|---------------------|----------|---------------------|--------------|-------------------|----------------|-------------------|-------|-------|-------|-------|---|-------|--------|-------|-------|---|-------|-------|-------|-------|
| | Class 1 | Class 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature Range | Temp. Char. CΔ : -55 to 125 °C : -25 to 85 °C Temp. Char. SL : -55 to 125 °C | Temp. Char. B, X7R : -55 to 125 °C Temp. Char. B, X5R : -55 to 85 °C Temp. Char. F, Y5V : -30 to 85 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dielectric Withstanding Voltage | No dielectric breakdown and /or damage | | Test voltage: Class 1:Rated voltage ×300 % Class 2:Rated voltage ×250 % Duration:1 to 5 s Charge/discharge current : 50 mA max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Insulation Resistance (I R) | 10000 MΩ or 500/C (MΩ) whichever is less. Note:100/C(MΩ)min. for DC 10 V max. C:Nominal Cap. in μF | | Measuring voltage:Rated voltage Duration: 60±5 s Charge/discharge current : 50 mA max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance | Within the specified tolerance. | | Measuring temperature: 20±2 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q Factor or Dissipation Factor (tan δ) | Q: C<30 pF: Q≥400+20C 30 pF≤C≤1000 pF:Q≥1000 tan δ: C>1000 pF: tan δ≤0.002 (C:Nominal Cap. in pF) | tan δ: Temp. Char. B, X7R, X5R: 0.15 max. Temp. Char. F, Y5V: 0.2 max. Please see the technical specifications for details. | Class 1: <table border="1"> <tr> <td>Nominal capacitance</td> <td>C ≤ 1000 pF</td> <td>C > 1000 pF</td> </tr> <tr> <td>Measuring frequency</td> <td>1 MHz ± 10 %</td> <td>1 kHz ± 10 %</td> </tr> <tr> <td>Measuring voltage</td> <td>0.5 to 5 Vrms</td> <td>0.5 to 5 Vrms</td> </tr> </table> Class 2: Preconditioning: The capacitors shall be kept in temperature of 150 +0/-10 °C for 1 hour and subjected to standard condition* 48±4 hours before initial measurement. <table border="1"> <tr> <td>Nominal capacitance</td> <td>C < 1 μF</td> </tr> <tr> <td>Measuring frequency</td> <td>1 kHz ± 10 %</td> </tr> <tr> <td>Measuring voltage</td> <td>1.0 ± 0.2 Vrms</td> </tr> </table> | Nominal capacitance | C ≤ 1000 pF | C > 1000 pF | Measuring frequency | 1 MHz ± 10 % | 1 kHz ± 10 % | Measuring voltage | 0.5 to 5 Vrms | 0.5 to 5 Vrms | Nominal capacitance | C < 1 μF | Measuring frequency | 1 kHz ± 10 % | Measuring voltage | 1.0 ± 0.2 Vrms | | | | | | | | | | | | | | | |
| Nominal capacitance | C ≤ 1000 pF | C > 1000 pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measuring frequency | 1 MHz ± 10 % | 1 kHz ± 10 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measuring voltage | 0.5 to 5 Vrms | 0.5 to 5 Vrms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal capacitance | C < 1 μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measuring frequency | 1 kHz ± 10 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measuring voltage | 1.0 ± 0.2 Vrms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature Characteristics | Temp. Char. CG : 0± 30 ppm/ °C CH : 0± 60 ppm/ °C CJ : 0±120 ppm/ °C CK : 0±250 ppm/ °C SL : +350 to -1000 ppm/ °C | Temp. Char. B : ±10 % X7R : ±15 % X5R : ±15 % F : +30, -80 % Y5V : +22, -82 % | Maximum capacitance change at stage 1 to 5 <table border="1"> <thead> <tr> <th>Temp. Char.</th> <th>CΔ, SL B, F</th> <th>X7R</th> <th>X5R</th> <th>Y5V</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>20 °C</td> <td>25 °C</td> <td>25 °C</td> <td>25 °C</td> </tr> <tr> <td>2</td> <td>-25 °C</td> <td>-55 °C</td> <td>-55 °C</td> <td>-30 °C</td> </tr> <tr> <td>3 (Ref. Temp.)</td> <td>20 °C</td> <td>25 °C</td> <td>25 °C</td> <td>25 °C</td> </tr> <tr> <td>4</td> <td>85 °C</td> <td>125 °C</td> <td>85 °C</td> <td>85 °C</td> </tr> <tr> <td>5</td> <td>20 °C</td> <td>25 °C</td> <td>25 °C</td> <td>25 °C</td> </tr> </tbody> </table> See the technical specifications for details such as measuring voltage. | Temp. Char. | CΔ, SL B, F | X7R | X5R | Y5V | 1 | 20 °C | 25 °C | 25 °C | 25 °C | 2 | -25 °C | -55 °C | -55 °C | -30 °C | 3 (Ref. Temp.) | 20 °C | 25 °C | 25 °C | 25 °C | 4 | 85 °C | 125 °C | 85 °C | 85 °C | 5 | 20 °C | 25 °C | 25 °C | 25 °C |
| Temp. Char. | CΔ, SL B, F | X7R | X5R | Y5V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 20 °C | 25 °C | 25 °C | 25 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | -25 °C | -55 °C | -55 °C | -30 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 (Ref. Temp.) | 20 °C | 25 °C | 25 °C | 25 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 85 °C | 125 °C | 85 °C | 85 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 20 °C | 25 °C | 25 °C | 25 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adhesion | Terminal electrodes shall be free from peeling or signs of peeling. | | Applied force: Size: 0201: 2 N Size: 0402 to 0805: 5N Duration: 10 s Size: 0201 to 0402  Size: 0603 to 0805  Unit : mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*Standard conditions : Temperature 15 to 35 °C, Relative humidity 45 to 75 %

| Item | Specification | | Test Method | | | | | | | | | |
|------------------------------|---|--|--|-------|------------|----------------|---|-----------|--------------|---|------------|--------------|
| | Class 1 | Class 2 | | | | | | | | | | |
| Bending Strength | Appearance: No mechanical damage Capacitance change: Within $\pm 5\%$ or ± 0.5 pF whichever is larger. | Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R : within $\pm 12.5\%$ F, Y5V : within $\pm 30\%$ | Bending value:1 mm Bending speed:1 mm/  | | | | | | | | | |
| Vibration Proof | Appearance: No mechanical damage. Capacitance: within the specified tolerance Q, tan δ : Initial standard value | | Total amplitude : 1.5 mm Vibration frequency : 10 to 55 to 10 Hz for 1 min. 3 perpendicular directions for 2 hours each, a total of 6 hours | | | | | | | | | |
| Resistance to Soldering Heat | Appearance: No mechanical damage Capacitance change: Within $\pm 2.5\%$ or ± 0.25 pF whichever is larger. Q,tan δ :Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage | Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R : within $\pm 7.5\%$ F, Y5V : within $\pm 20\%$ tan δ :Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage | Soldering bath method Preconditioning:Heat treatment/Class 2 ^(*) Solder temperature:270 \pm 5 °C Dipping period:3.0 \pm 0.5 s Preheat condition: <table border="1" data-bbox="1018 869 1444 990"> <thead> <tr> <th>Order</th> <th>Temp. (°C)</th> <th>Size 0805 max.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>80 to 100</td> <td>120 to 180 s</td> </tr> <tr> <td>2</td> <td>150 to 200</td> <td>120 to 180 s</td> </tr> </tbody> </table> Recovery (Standard condition): Class 1:24 \pm 2 h Class 2:48 \pm 4 h | Order | Temp. (°C) | Size 0805 max. | 1 | 80 to 100 | 120 to 180 s | 2 | 150 to 200 | 120 to 180 s |
| Order | Temp. (°C) | Size 0805 max. | | | | | | | | | | |
| 1 | 80 to 100 | 120 to 180 s | | | | | | | | | | |
| 2 | 150 to 200 | 120 to 180 s | | | | | | | | | | |
| Solderability | More than 95 % of the soldered area of both terminal electrodes should be covered with fresh solder. | | Soldering bath method Solder temperature:230 \pm 5 °C Dipping period:4 \pm 1 s Solder:H63A (JIS Z 3282) | | | | | | | | | |
| Temperature Cycle | Appearance: No mechanical damage Capacitance change: Within $\pm 2.5\%$ or ± 0.25 pF whichever is larger. Q,tan δ :Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage | Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: within $\pm 7.5\%$ F, Y5V : within $\pm 20\%$ tan δ :Initial standard value IR:Initial standard value Withstand voltage: No dielectric breakdown and/or damage | Preconditioning:Heat treatment (150 °C, 1h) /Class 2 Condition of one cycle Step 1:Minimum operationing temp. 30 \pm 3 min Step 2:Room temp. 3 min max. Step 3:Maximum operationing temp. 30 \pm 3 min Step 4:Room temp. 3 min max. Number of cycles:5 cycles Recovery (Standard condition) Class 1:24 \pm 2 h Class 2:48 \pm 4 h | | | | | | | | | |
| Damp Heat (Steady state) | Appearance: No mechanical damage Capacitance change: Within $\pm 5\%$ or ± 0.5 pF whichever is larger. Q: C<10 pF:Q \geq 200+10C 10 pF \leq C<30 pF:Q \geq 275+5C/2 30 pF \leq C \leq 1000 pF:Q \geq 350 tan δ : C>1000 pF:tan δ \leq 0.004 C:Nominal capacitance in pF IR: 1000 M Ω or 50/C (M Ω) Whichever is less. C:Nominal capacitance in μ F | Appearance: No mechanical damage Capacitance change: Temp. Char. B, X7R, X5R: Within $\pm 20\%$ F, Y5V: Within $\pm 30\%$ tan δ : Temp. Char. B, X7R, X5R: 0.25 max. F, Y5V: 0.3 max. IR: 1000 M Ω or 50/C (M Ω) Whichever is less. Note:10/C (M Ω) min. for DC 10 V max. C:Nominal capacitance in μ F Please see the technical specifications for details. | Preconditioning:Heat treatment/Class 2 ^(*) Temperature:40 \pm 2 °C Relative humidity:90 to 95 % Test period:500+24/0 h Recovery (Standard condition) Class 1:24 \pm 2 h Class 2:48 \pm 4 h | | | | | | | | | |

(*) Heat treatment: 1 h of heat treatment at 150 \pm 0/-10 °C followed by 48 \pm 4 h recovery under standard conditions.

| Item | Specification | | Test Method |
|-----------------------|---|---|--|
| | Class 1 | Class 2 | |
| Damp Heat Load | <p>Appearance: No mechanical damage</p> <p>Capacitance change: Within $\pm 7.5\%$ or ± 0.75 pF whichever is larger.</p> <p>Q: C<30 pF:Q\geq100+10C/3 30 pF\leqC\leq1000 pF:Q\geq200</p> <p>tan δ: C>1000 pF:tan $\delta$$\leq$0.004 (C:Nominal capacitance in pF)</p> <p>IR: 500 MΩ or 25/C (MΩ) Whichever is less. (C:Nominal capacitance in μF)</p> | <p>Appearance: No mechanical damage</p> <p>Capacitance change: Temp. Char. B, X7R, X5R: Within $\pm 20\%$ F, Y5V: Within $\pm 30\%$</p> <p>tan δ: Temp. Char. B, X7R, X5R: 0.25 max. F, Y5V: 0.3 max.</p> <p>IR: 500 MΩ or 25/C (MΩ) Whichever is less. Note:5/C (MΩ) min. for DC 10 V max. C:Nominal capacitance in μF Please see the technical specifications for details.</p> | <p>Preconditioning:Voltage treatment/Class 2^(*)</p> <p>Temperature:40\pm2 °C</p> <p>Relative humidity:90 to 95 %</p> <p>Applied voltage:Rated voltage</p> <p>Charge/discharge current: 50 mA max.</p> <p>Test period:500+24/0 h</p> <p>Recovery (Standard condition) Class 1:24\pm2 h Class 2:48\pm4 h</p> |
| High Temperature Load | <p>Appearance: No mechanical damage</p> <p>Capacitance change: Within $\pm 3\%$ or ± 0.3 pF whichever is larger.</p> <p>Q: C<10 pF:Q\geq200+10C 10 pF\leqC\leq30 pF:Q\geq275+5C/2 30 pF\leqC\leq1000 pF:Q\geq350</p> <p>tan δ: C>1000 pF:tan $\delta$$\leq$0.004 C:Nominal capacitance in pF</p> <p>IR: 1000 MΩ or 50/C (MΩ) Whichever is less. C:Nominal capacitance in μF</p> | <p>Appearance: No mechanical damage</p> <p>Capacitance change: Temp. Char. B, X7R, X5R: Within $\pm 20\%$ F, Y5V: Within $\pm 30\%$</p> <p>tan δ: Temp. Char. B, X7R, X5R: 0.25 max. F, Y5V: 0.3 max.</p> <p>IR: 1000 MΩ or 50/C (MΩ) Whichever is less. Note:10/C (MΩ) min. for DC 10 V max. C:Nominal capacitance in μF Please see the technical specifications for details.</p> | <p>Preconditioning:Voltage treatment/Class 2^(*)</p> <p>Temperature: Maximum operating temp. ± 3 °C</p> <p>Applied voltage: (1) Rated voltage $\times 200\%$ (2) Rated voltage $\times 100\%$</p> <p>Please see the technical specifications for details.</p> <p>Charge/discharge current: 50 mA max.</p> <p>Test period:1000+48/0 h</p> <p>Recovery (Standard condition) Class 1:24\pm2 h Class 2:48\pm4 h</p> |

(*1) Heat treatment:1 h of heat treatment at 150+0/-10 °C followed by 48 \pm 4 h recovery under standard conditions

(*2) Voltage treatment:1 h of voltage treatment under the specified temperature and voltage for testing followed by 48 \pm 4 h of recovery under standard conditions

■ Standard Products for EIA "0201", Taped Version

● Class 1

◆ Temperature Characteristic Code : C (Temperature Characteristics : CA)

| Rated voltage | | DC 25 V | | | | DC 16 V | | | | | | | | | |
|------------------|-----------------------------|--------------|-------------|-------------|----|---------|----|--------------|--------------|-------------|----|----|----|---|--|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | | | | Part No. | Dim. T (mm) | Temp. Char. | | | | | |
| | | | | CK | CJ | CH | CG | | | CK | CJ | CH | CG | | |
| 0.5 | ±0.25 pF(C) | ECJZEC1E0R5C | 0.3 | ○ | — | — | — | | | | | | | | |
| 1 | ±0.25 pF (C) | ECJZEC1E010□ | 0.3 | ○ | — | — | — | | | | | | | | |
| 1.5 | | ECJZEC1E1R5□ | 0.3 | ○ | — | — | — | | | | | | | | |
| 2 | ±0.5 pF (D) | ECJZEC1E020□ | 0.3 | ○ | — | — | — | | | | | | | | |
| 3 | | ECJZEC1E030□ | 0.3 | — | ○ | — | — | | | | | | | | |
| 4 | ±0.5 pF (D) | ECJZEC1E040□ | 0.3 | — | — | ○ | — | | | | | | | | |
| 5 | | ECJZEC1E050□ | 0.3 | — | — | ○ | — | | | | | | | | |
| 6 | ±0.5 pF (D) | ECJZEC1E060D | 0.3 | — | — | ○ | — | | | | | | | | |
| 7 | | ECJZEC1E070D | 0.3 | — | — | ○ | — | | | | | | | | |
| 8 | ±0.5 pF (D) | ECJZEC1E080D | 0.3 | — | — | ○ | — | | | | | | | | |
| 9 | | ECJZEC1E090D | 0.3 | — | — | ○ | — | | | | | | | | |
| 10 | ±0.5 pF (D) or ±1 pF (F) | ECJZEC1E100□ | 0.3 | — | — | ○ | ○ | | | | | | | | |
| 12 | ±5 % (J) or ±10 % (K) | ECJZEC1E120□ | 0.3 | — | — | ○ | ○ | | | | | | | | |
| 15 | | ECJZEC1E150□ | 0.3 | — | — | ○ | ○ | | | | | | | | |
| 18 | | ECJZEC1E180□ | 0.3 | — | — | ○ | ○ | | | | | | | | |
| 22 | | ECJZEC1E220□ | 0.3 | — | — | ○ | ○ | | | | | | | | |
| 27 | | ECJZEC1E270□ | 0.3 | — | — | ○ | ○ | | | | | | | | |
| 33 | | ECJZEC1E330□ | 0.3 | — | — | ○ | ○ | | | | | | | | |
| 39 | | | | | | | | | ECJZEC1C390□ | 0.3 | — | — | ○ | ○ | |
| 47 | | | | | | | | | ECJZEC1C470□ | 0.3 | — | — | ○ | ○ | |
| 56 | | | | | | | | | ECJZEC1C560□ | 0.3 | — | — | ○ | ○ | |
| 68 | | | | | | | | | ECJZEC1C680□ | 0.3 | — | — | ○ | ○ | |
| 82 | | | | | | | | ECJZEC1C820□ | 0.3 | — | — | ○ | ○ | | |
| 100 | | | | | | | | ECJZEC1C101□ | 0.3 | — | — | ○ | ○ | | |

□: Capacitance tolerance code.

Standard packaging quantity of Packaging Style Code "E" (T = 0.3 mm): 15,000 pcs./reel

Recommend soldering method: Reflow soldering.

● Class 2 Capacitors

◆ Temperature Characteristic Code : B (Temperature Characteristics : B, X7R, X5R)

| Rated voltage | | DC 50 V | | | | DC 25 V | | | | DC 16 V | | | | DC 10 V | | | | DC 6.3 V | | | | | | |
|------------------|------------------------------|--------------|-------------|-------------|-----|---------|--------------|-------------|-------------|---------|-----|--------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|--------------|--------------|-----|---|---|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | | | Part No. | Dim. T (mm) | Temp. Char. | | | Part No. | Dim. T (mm) | Temp. Char. | | | Part No. | Dim. T (mm) | Temp. Char. | | | | | |
| | | | | B | X7R | X5R | | | B | X7R | X5R | | | B | X7R | X5R | | | B | X7R | X5R | | | |
| 150 | ±10 % (K) or ±20 % (M) | ECJZEB1H151□ | 0.3 | ○ | ○ | — | ECJZEB1E151□ | 0.3 | ○ | ○ | — | | | | | | | | | | | | | |
| 220 | | ECJZEB1H221□ | 0.3 | ○ | ○ | — | ECJZEB1E221□ | 0.3 | ○ | ○ | — | | | | | | | | | | | | | |
| 330 | | ECJZEB1H331□ | 0.3 | ○ | ○ | — | ECJZEB1E331□ | 0.3 | ○ | ○ | — | | | | | | | | | | | | | |
| 470 | | ECJZEB1H471□ | 0.3 | ○ | ○ | — | ECJZEB1E471□ | 0.3 | ○ | ○ | — | | | | | | | | | | | | | |
| 680 | | ECJZEB1H681□ | 0.3 | ○ | ○ | — | ECJZEB1E681□ | 0.3 | ○ | ○ | — | | | | | | | | | | | | | |
| 1000 | | ECJZEB1H102□ | 0.3 | ○ | ○ | — | ECJZEB1E102□ | 0.3 | ○ | ○ | — | | | | | | | | | | | | | |
| 1500 | | | | | | | | | | | | ECJZEB1C152□ | 0.3 | ○ | ○ | — | | | | | | | | |
| 2200 | | | | | | | | | | | | ECJZEB1C222□ | 0.3 | ○ | ○ | — | | | | | | | | |
| 3300 | | | | | | | | | | | | ECJZEB1C332□ | 0.3 | ○ | — | ○ | ECJZEB1A332□ | 0.3 | ○ | — | ○ | | | |
| 4700 | | | | | | | | | | | | | | | | ECJZEB1A472□ | 0.3 | — | — | ○ | ECJZEB0J472□ | 0.3 | — | — |
| 6800 | | | | | | | | | | | | | | | ECJZEB1A682□ | 0.3 | — | — | ○ | ECJZEB0J682□ | 0.3 | — | — | ○ |
| 10000 | | | | | | | | | | | | | | | ECJZEB1A103□ | 0.3 | — | — | ○ | ECJZEB0J103□ | 0.3 | — | — | ○ |
| 15000 | | | | | | | | | | | | | | | ECJZEB1A153□ | 0.3 | — | — | ○ | ECJZEB0J153□ | 0.3 | — | — | ○ |
| 22000 | | | | | | | | | | | | | | | ECJZEB1A223□ | 0.3 | — | — | ○ | ECJZEB0J223□ | 0.3 | — | — | ○ |
| 33000 | | | | | | | | | | | | | | | ECJZEB1A333□ | 0.3 | — | — | ○ | ECJZEB0J333□ | 0.3 | — | — | ○ |
| 47000 | | | | | | | | | | | | | | | ECJZEB1A473□ | 0.3 | — | — | ○ | ECJZEB0J473□ | 0.3 | — | — | ○ |
| 68000 | | | | | | | | | | | | | | | ECJZEB1A683□ | 0.3 | — | — | ○ | ECJZEB0J683□ | 0.3 | — | — | ○ |
| 100000 | | | | | | | | | | | | | | | ECJZEB1A104□ | 0.3 | — | — | ○ | ECJZEB0J104□ | 0.3 | — | — | ○ |
| 220000 | | | | | | | | | | | | | | | | | | | | ECJZEB0J224M | 0.3 | — | — | ○ |

□: Capacitance tolerance code : "□" for "K" or "M"

Standard packaging quantity of Packaging Style Code "E" (T = 0.3 mm): 15,000 pcs./reel

Recommend soldering method: Reflow soldering.

■ Standard Products for EIA "0402", Taped Version

● Class 1

◆ Temperature Characteristic Code : C (Temp. Char. : CΔ)

| Rated voltage | | DC 50 V | | | | | |
|------------------|-----------------------------|--------------|-------------|-------------|----|----|----|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | | | |
| | | | | CK | CJ | CH | CG |
| 0.5 | ±0.25 pF (C) | ECJ0EC1H0R5C | 0.5 | ○ | — | — | — |
| 1 | ±0.25 pF (C) | ECJ0EC1H010□ | 0.5 | ○ | — | — | — |
| 1.5 | | ECJ0EC1H1R5□ | 0.5 | ○ | — | — | — |
| 2 | ±0.5 pF (D) | ECJ0EC1H020□ | 0.5 | ○ | — | — | — |
| 3 | | ECJ0EC1H030□ | 0.5 | — | ○ | — | — |
| 4 | ±0.5 pF (D) | ECJ0EC1H040□ | 0.5 | — | — | ○ | — |
| 5 | | ECJ0EC1H050□ | 0.5 | — | — | ○ | — |
| 6 | | ECJ0EC1H060D | 0.5 | — | — | ○ | — |
| 7 | ±0.5 pF(D) | ECJ0EC1H070D | 0.5 | — | — | ○ | — |
| 8 | | ECJ0EC1H080D | 0.5 | — | — | ○ | — |
| 9 | | ECJ0EC1H090D | 0.5 | — | — | ○ | — |
| 10 | ±0.5 pF (D) or ±1 pF (F) | ECJ0EC1H100□ | 0.5 | — | — | ○ | ○ |
| 12 | ±5 % (J) or ±10 % (K) | ECJ0EC1H120□ | 0.5 | — | — | ○ | ○ |
| 15 | | ECJ0EC1H150□ | 0.5 | — | — | ○ | ○ |
| 18 | | ECJ0EC1H180□ | 0.5 | — | — | ○ | ○ |
| 22 | | ECJ0EC1H220□ | 0.5 | — | — | ○ | ○ |
| 27 | | ECJ0EC1H270□ | 0.5 | — | — | ○ | ○ |
| 33 | | ECJ0EC1H330□ | 0.5 | — | — | ○ | ○ |
| 39 | | ECJ0EC1H390□ | 0.5 | — | — | ○ | ○ |
| 47 | | ECJ0EC1H470□ | 0.5 | — | — | ○ | ○ |
| 56 | | ECJ0EC1H560□ | 0.5 | — | — | ○ | ○ |
| 68 | | ECJ0EC1H680□ | 0.5 | — | — | ○ | ○ |
| 82 | | ECJ0EC1H820□ | 0.5 | — | — | ○ | ○ |
| 100 | | ECJ0EC1H101□ | 0.5 | — | — | ○ | ○ |
| 120 | | ECJ0EC1H121□ | 0.5 | — | — | ○ | ○ |
| 150 | | ECJ0EC1H151□ | 0.5 | — | — | ○ | ○ |
| 180 | ECJ0EC1H181□ | 0.5 | — | — | ○ | ○ | |
| 220 | ECJ0EC1H221□ | 0.5 | — | — | ○ | ○ | |

□: Capacitance tolerance code.

Standard packaging quantity of Packaging Style Code "E" (T = 0.5 mm): 10,000 pcs./reel.

Recommend soldering method: Reflow soldering.

◆ Temperature Characteristic Code : G (Temp. Char. : SL)

| Rated voltage | | DC 50 V | | | |
|------------------|-----------------------------|--------------|-------------|-------------|--|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | |
| | | | | SL | |
| 0.5 | ±0.25 pF (C) | ECJ0EG1H0R5C | 0.5 | ○ | |
| 1 | ±0.25 pF (C) | ECJ0EG1H010□ | 0.5 | ○ | |
| 1.5 | | ECJ0EG1H1R5□ | 0.5 | ○ | |
| 2 | ±0.5 pF (D) | ECJ0EG1H020□ | 0.5 | ○ | |
| 3 | | ECJ0EG1H030□ | 0.5 | ○ | |
| 4 | ±0.5 pF (D) | ECJ0EG1H040□ | 0.5 | ○ | |
| 5 | | ECJ0EG1H050□ | 0.5 | ○ | |
| 6 | | ECJ0EG1H060D | 0.5 | ○ | |
| 7 | ±0.5 pF(D) | ECJ0EG1H070D | 0.5 | ○ | |
| 8 | | ECJ0EG1H080D | 0.5 | ○ | |
| 9 | | ECJ0EG1H090D | 0.5 | ○ | |
| 10 | ±0.5 pF (D) or ±1 pF (F) | ECJ0EG1H100□ | 0.5 | ○ | |
| 12 | ±5 % (J) or ±10 % (K) | ECJ0EG1H120□ | 0.5 | ○ | |
| 15 | | ECJ0EG1H150□ | 0.5 | ○ | |
| 18 | | ECJ0EG1H180□ | 0.5 | ○ | |
| 22 | | ECJ0EG1H220□ | 0.5 | ○ | |
| 27 | | ECJ0EG1H270□ | 0.5 | ○ | |
| 33 | | ECJ0EG1H330□ | 0.5 | ○ | |
| 39 | | ECJ0EG1H390□ | 0.5 | ○ | |
| 47 | | ECJ0EG1H470□ | 0.5 | ○ | |
| 56 | | ECJ0EG1H560□ | 0.5 | ○ | |
| 68 | | ECJ0EG1H680□ | 0.5 | ○ | |
| 82 | | ECJ0EG1H820□ | 0.5 | ○ | |
| 100 | | ECJ0EG1H101□ | 0.5 | ○ | |
| 120 | | ECJ0EG1H121□ | 0.5 | ○ | |
| 150 | | ECJ0EG1H151□ | 0.5 | ○ | |
| 180 | ECJ0EG1H181□ | 0.5 | ○ | | |
| 220 | ECJ0EG1H221□ | 0.5 | ○ | | |

■ Standard Products for EIA "0603", Taped Version

● Class 1

◆ Temperature Characteristic Code : C (Temp. Char. : CA)

| Rated voltage | | DC 50 V | | | | | |
|------------------|-----------------------------|--------------|-------------|-------------|----|----|----|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | | | |
| | | | | CK | CJ | CH | CG |
| 0.5 | ±0.25 pF (C) | ECJ1VC1H0R5C | 0.8 | ○ | — | — | — |
| 1 | ±0.25 pF (C) | ECJ1VC1H010□ | 0.8 | ○ | — | — | — |
| 1.5 | | ECJ1VC1H1R5□ | 0.8 | ○ | — | — | — |
| 2 | ±0.5 pF (D) | ECJ1VC1H020□ | 0.8 | ○ | — | — | — |
| 3 | | ECJ1VC1H030□ | 0.8 | — | ○ | — | — |
| 4 | ±0.5 pF (D) | ECJ1VC1H040□ | 0.8 | — | — | ○ | — |
| 5 | | ECJ1VC1H050□ | 0.8 | — | — | ○ | — |
| 6 | ±0.5 pF (D) | ECJ1VC1H060D | 0.8 | — | — | ○ | — |
| 7 | | ECJ1VC1H070D | 0.8 | — | — | ○ | — |
| 8 | | ECJ1VC1H080D | 0.8 | — | — | ○ | — |
| 9 | | ECJ1VC1H090D | 0.8 | — | — | ○ | — |
| 10 | | ECJ1VC1H100□ | 0.8 | — | — | ○ | ○ |
| 12 | ±0.5 pF (D) or ±1 pF (F) | ECJ1VC1H120□ | 0.8 | — | — | ○ | ○ |
| 15 | | ECJ1VC1H150□ | 0.8 | — | — | ○ | ○ |
| 18 | | ECJ1VC1H180□ | 0.8 | — | — | ○ | ○ |
| 22 | | ECJ1VC1H220□ | 0.8 | — | — | ○ | ○ |
| 27 | | ECJ1VC1H270□ | 0.8 | — | — | ○ | ○ |
| 33 | | ECJ1VC1H330□ | 0.8 | — | — | ○ | ○ |
| 39 | | ECJ1VC1H390□ | 0.8 | — | — | ○ | ○ |
| 47 | | ECJ1VC1H470□ | 0.8 | — | — | ○ | ○ |
| 56 | | ECJ1VC1H560□ | 0.8 | — | — | ○ | ○ |
| 68 | | ECJ1VC1H680□ | 0.8 | — | — | ○ | ○ |
| 82 | ±5 % (J) or ±10 % (K) | ECJ1VC1H820□ | 0.8 | — | — | ○ | ○ |
| 100 | | ECJ1VC1H101□ | 0.8 | — | — | ○ | ○ |
| 120 | | ECJ1VC1H121□ | 0.8 | — | — | ○ | ○ |
| 150 | | ECJ1VC1H151□ | 0.8 | — | — | ○ | ○ |
| 180 | | ECJ1VC1H181□ | 0.8 | — | — | ○ | ○ |
| 220 | | ECJ1VC1H221□ | 0.8 | — | — | ○ | ○ |
| 270 | | ECJ1VC1H271□ | 0.8 | — | — | ○ | ○ |
| 330 | | ECJ1VC1H331□ | 0.8 | — | — | ○ | ○ |
| 390 | ECJ1VC1H391□ | 0.8 | — | — | ○ | ○ | |
| 470 | ECJ1VC1H471□ | 0.8 | — | — | ○ | ○ | |
| 560 | ECJ1VC1H561□ | 0.8 | — | — | ○ | ○ | |
| 680 | ECJ1VC1H681□ | 0.8 | — | — | ○ | ○ | |
| 820 | ECJ1VC1H821□ | 0.8 | — | — | ○ | ○ | |
| 1000 | ECJ1VC1H102□ | 0.8 | — | — | ○ | ○ | |

□: Capacitance tolerance code.

Standard packaging quantity of Packaging Style Code "V" (T = 0.8 mm): 4,000 pcs./reel

Recommend soldering method: Reflow soldering.

◆ Temperature Characteristic Code : G (Temp. Char. : SL)

| Rated voltage | | DC 50 V | | | |
|------------------|-----------------------------|--------------|-------------|-------------|--|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | |
| | | | | SL | |
| 0.5 | ±0.25 pF (C) | ECJ1VG1H0R5C | 0.8 | ○ | |
| 1 | ±0.25 pF (C) | ECJ1VG1H010□ | 0.8 | ○ | |
| 1.5 | | ECJ1VG1H1R5□ | 0.8 | ○ | |
| 2 | ±0.5 pF (D) | ECJ1VG1H020□ | 0.8 | ○ | |
| 3 | | ECJ1VG1H030□ | 0.8 | ○ | |
| 4 | ±0.5 pF (D) | ECJ1VG1H040□ | 0.8 | ○ | |
| 5 | | ECJ1VG1H050□ | 0.8 | ○ | |
| 6 | ±0.5 pF (D) | ECJ1VG1H060D | 0.8 | ○ | |
| 7 | | ECJ1VG1H070D | 0.8 | ○ | |
| 8 | | ECJ1VG1H080D | 0.8 | ○ | |
| 9 | | ECJ1VG1H090D | 0.8 | ○ | |
| 10 | | ECJ1VG1H100□ | 0.8 | ○ | |
| 12 | ±0.5 pF (D) or ±1 pF (F) | ECJ1VG1H120□ | 0.8 | ○ | |
| 15 | | ECJ1VG1H150□ | 0.8 | ○ | |
| 18 | | ECJ1VG1H180□ | 0.8 | ○ | |
| 22 | | ECJ1VG1H220□ | 0.8 | ○ | |
| 27 | | ECJ1VG1H270□ | 0.8 | ○ | |
| 33 | | ECJ1VG1H330□ | 0.8 | ○ | |
| 39 | | ECJ1VG1H390□ | 0.8 | ○ | |
| 47 | | ECJ1VG1H470□ | 0.8 | ○ | |
| 56 | | ECJ1VG1H560□ | 0.8 | ○ | |
| 68 | | ECJ1VG1H680□ | 0.8 | ○ | |
| 82 | ±5 % (J) or ±10 % (K) | ECJ1VG1H820□ | 0.8 | ○ | |
| 100 | | ECJ1VG1H101□ | 0.8 | ○ | |
| 120 | | ECJ1VG1H121□ | 0.8 | ○ | |
| 150 | | ECJ1VG1H151□ | 0.8 | ○ | |
| 180 | | ECJ1VG1H181□ | 0.8 | ○ | |
| 220 | | ECJ1VG1H221□ | 0.8 | ○ | |
| 270 | | ECJ1VG1H271□ | 0.8 | ○ | |
| 330 | | ECJ1VG1H331□ | 0.8 | ○ | |
| 390 | ECJ1VG1H391□ | 0.8 | ○ | | |
| 470 | ECJ1VG1H471□ | 0.8 | ○ | | |
| 560 | ECJ1VG1H561□ | 0.8 | ○ | | |
| 680 | ECJ1VG1H681□ | 0.8 | ○ | | |
| 820 | ECJ1VG1H821□ | 0.8 | ○ | | |
| 1000 | ECJ1VG1H102□ | 0.8 | ○ | | |

■ Standard Products for EIA "0805", Taped Version

● Class 1

◆ Temperature Characteristic Code : C (Temp. Char. : CA)

| Rated voltage | | DC 50 V | | | |
|------------------|-----------------------------|--------------|-------------|-------------|----|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | |
| | | | | CH | CG |
| 27 | ±5 % (J) or ±10 % (K) | ECJ2VC1H270□ | 0.6 | ○ | ○ |
| 33 | | ECJ2VC1H330□ | 0.6 | ○ | ○ |
| 39 | | ECJ2VC1H390□ | 0.6 | ○ | ○ |
| 47 | | ECJ2VC1H470□ | 0.6 | ○ | ○ |
| 56 | | ECJ2VC1H560□ | 0.6 | ○ | ○ |
| 68 | | ECJ2VC1H680□ | 0.6 | ○ | ○ |
| 82 | | ECJ2VC1H820□ | 0.6 | ○ | ○ |
| 100 | | ECJ2VC1H101□ | 0.6 | ○ | ○ |
| 120 | | ECJ2VC1H121□ | 0.6 | ○ | ○ |
| 150 | | ECJ2VC1H151□ | 0.6 | ○ | ○ |
| 180 | | ECJ2VC1H181□ | 0.6 | ○ | ○ |
| 220 | | ECJ2VC1H221□ | 0.6 | ○ | ○ |
| 270 | | ECJ2VC1H271□ | 0.6 | ○ | ○ |
| 330 | | ECJ2VC1H331□ | 0.6 | ○ | ○ |
| 390 | | ECJ2VC1H391□ | 0.6 | ○ | ○ |
| 470 | | ECJ2VC1H471□ | 0.6 | ○ | ○ |
| 560 | | ECJ2VC1H561□ | 0.6 | ○ | ○ |
| 680 | | ECJ2VC1H681□ | 0.6 | ○ | ○ |
| 820 | | ECJ2VC1H821□ | 0.6 | ○ | ○ |
| 1000 | | ECJ2VC1H102□ | 0.6 | ○ | ○ |
| 1200 | | ECJ2VC1H122□ | 0.6 | ○ | — |
| 1500 | | ECJ2VC1H152□ | 0.6 | ○ | — |
| 1800 | | ECJ2VC1H182□ | 0.6 | ○ | — |
| 2200 | | ECJ2VC1H222□ | 0.6 | ○ | — |
| 2700 | | ECJ2VC1H272□ | 0.85 | ○ | — |

◆ Temperature Characteristic Code : G (Temp. Char. : SL)

| Rated voltage | | DC 50 V | | | |
|------------------|-----------------------------|--------------|-------------|-------------|---|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | |
| | | | | SL | |
| 27 | ±5 % (J) or ±10 % (K) | ECJ2VG1H270□ | 0.6 | ○ | ○ |
| 33 | | ECJ2VG1H330□ | 0.6 | ○ | ○ |
| 39 | | ECJ2VG1H390□ | 0.6 | ○ | ○ |
| 47 | | ECJ2VG1H470□ | 0.6 | ○ | ○ |
| 56 | | ECJ2VG1H560□ | 0.6 | ○ | ○ |
| 68 | | ECJ2VG1H680□ | 0.6 | ○ | ○ |
| 82 | | ECJ2VG1H820□ | 0.6 | ○ | ○ |
| 100 | | ECJ2VG1H101□ | 0.6 | ○ | ○ |
| 120 | | ECJ2VG1H121□ | 0.6 | ○ | ○ |
| 150 | | ECJ2VG1H151□ | 0.6 | ○ | ○ |
| 180 | | ECJ2VG1H181□ | 0.6 | ○ | ○ |
| 220 | | ECJ2VG1H221□ | 0.6 | ○ | ○ |
| 270 | | ECJ2VG1H271□ | 0.6 | ○ | ○ |
| 330 | | ECJ2VG1H331□ | 0.6 | ○ | ○ |
| 390 | | ECJ2VG1H391□ | 0.6 | ○ | ○ |
| 470 | | ECJ2VG1H471□ | 0.6 | ○ | ○ |
| 560 | | ECJ2VG1H561□ | 0.6 | ○ | ○ |
| 680 | | ECJ2VG1H681□ | 0.6 | ○ | ○ |
| 820 | | ECJ2VG1H821□ | 0.6 | ○ | ○ |
| 1000 | | ECJ2VG1H102□ | 0.6 | ○ | ○ |
| 1200 | | ECJ2VG1H122□ | 0.6 | ○ | ○ |
| 1500 | | ECJ2VG1H152□ | 0.6 | ○ | ○ |
| 1800 | | ECJ2VG1H182□ | 0.6 | ○ | ○ |
| 2200 | | ECJ2VG1H222□ | 0.6 | ○ | ○ |
| 2700 | | ECJ2VG1H272□ | 0.6 | ○ | ○ |

□: Capacitance tolerance code.

Dimensional tolerance of L, W, T: ± 0.1 mm

Standard packaging quantity of Packaging Style Code "V" (T = 0.6 mm): 5,000 pcs./reel, "V" (T = 0.85 mm): 4,000 pcs./reel

Recommend soldering method: Reflow soldering.

■ Standard Products for EIA "0805", Taped Version

● Class 2

◆ Temperature Characteristic Code : B (Temperature Characteristics : B, X7R, X5R)

| Rated voltage | | DC 50 V | | | | | DC 25 V | | | | | DC 16 V | | | | | DC 10 V | | | | |
|------------------|-----------------------|--------------|-------------|-------------|-----|-----|--------------|-------------|-------------|-----|-----|--------------|-------------|-------------|-----|-----|--------------|-------------|-------------|-----|-----|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | | | Part No. | Dim. T (mm) | Temp. Char. | | | Part No. | Dim. T (mm) | Temp. Char. | | | Part No. | Dim. T (mm) | Temp. Char. | | |
| | | | | B | X7R | X5R | | | B | X7R | X5R | | | B | X7R | X5R | | | B | X7R | X5R |
| 1000 | | ECJ2VB1H102□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 1200 | | ECJ2VB1H122K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 1500 | | ECJ2VB1H152□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 1800 | | ECJ2VB1H182K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 2200 | | ECJ2VB1H222□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 2700 | | ECJ2VB1H272K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 3300 | | ECJ2VB1H332□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 3900 | | ECJ2VB1H392K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 4700 | | ECJ2VB1H472□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 5600 | | ECJ2VB1H562K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 6800 | | ECJ2VB1H682□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 8200 | | ECJ2VB1H822K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 10000 | | ECJ2VB1H103□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 12000 | | ECJ2VB1H123K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 15000 | ±10 % (K) | ECJ2VB1H153□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 18000 | or | ECJ2VB1H183K | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 22000 | ±20 % (M) | ECJ2VB1H223□ | 0.6 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 27000 | | ECJ2VB1H273K | 0.85 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 33000 | | ECJ2VB1H333□ | 0.85 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 39000 | | ECJ2VB1H393K | 0.85 | ○ | ○ | — | | | | | | | | | | | | | | | |
| 47000 | | ECJ2FB1H473□ | 1.25 | ○ | ○ | — | ECJ2VB1E473□ | 0.85 | ○ | ○ | — | | | | | | | | | | |
| 56000 | | ECJ2FB1H563K | 1.25 | ○ | ○ | — | ECJ2VB1E563K | 0.85 | ○ | ○ | — | | | | | | | | | | |
| 68000 | | ECJ2FB1H683□ | 1.25 | ○ | ○ | — | ECJ2VB1E683□ | 0.85 | ○ | ○ | — | | | | | | | | | | |
| 82000 | | ECJ2FB1H823K | 1.25 | ○ | ○ | — | ECJ2VB1E823K | 0.85 | ○ | ○ | — | | | | | | | | | | |
| 100000 | | ECJ2FB1H104□ | 1.25 | ○ | ○ | — | ECJ2VB1E104□ | 0.85 | ○ | ○ | — | ECJ2VB1C104□ | 0.85 | ○ | ○ | — | | | | | |
| 150000 | | ECJ2FB1H154□ | 1.25 | ○ | ○ | — | ECJ2VB1E154□ | 1.25 | ○ | ○ | — | ECJ2VB1C154□ | 0.85 | ○ | ○ | — | | | | | |
| 220000 | | ECJ2FB1H224□ | 1.25 | ○ | ○ | — | ECJ2VB1E224□ | 1.25 | ○ | ○ | — | ECJ2VB1C224□ | 0.85 | ○ | ○ | — | | | | | |
| 330000 | | | | | | | ECJ2FB1E334□ | 1.25 | ○ | ○ | — | ECJ2FB1C334□ | 1.25 | ○ | ○ | — | | | | | |
| 470000 | | | | | | | ECJ2FB1E474□ | 1.25 | ○ | ○ | — | ECJ2FB1C474□ | 1.25 | ○ | ○ | — | | | | | |
| 680000 | | | | | | | ECJ2FB1E684□ | 1.25* | — | — | ○ | ECJ2FB1C684□ | 1.25* | — | — | ○ | ECJ2FB1A684□ | 1.25 | — | — | ○ |

□: Capacitance tolerance code : "□" for "K" or "M"

Dimensional tolerance of L, W, T: ± 0.1 mm for no mark, ± 0.15 mm for "*" mark

Standard packaging quantity of Packaging Style Code "V" (T = 0.6 mm): 5,000 pcs./reel, "V" (T = 0.85 mm): 4,000 pcs./reel, "F" (T = 1.25 mm): 3,000 pcs./reel

Soldering method of dimension T>1 mm: Avoid flow soldering.

For capacitance 1 μF or more, see page 6 and 7 for High Capacitance.

◆ Temperature Characteristic Code : F (Temperature Characteristics : F, Y5V)

| Rated voltage | | DC 50 V | | | | DC 25 V | | | | DC 16 V | | | |
|------------------|-----------------------|--------------|-------------|-------------|-----|--------------|-------------|-------------|-----|--------------|-------------|-------------|-----|
| Capacitance (pF) | Capacitance Tolerance | Part No. | Dim. T (mm) | Temp. Char. | | Part No. | Dim. T (mm) | Temp. Char. | | Part No. | Dim. T (mm) | Temp. Char. | |
| | | | | F | Y5V | | | F | Y5V | | | F | Y5V |
| 10000 | | ECJ2VF1H103Z | 0.6 | ○ | ○ | | | | | | | | |
| 22000 | | ECJ2VF1H223Z | 0.6 | ○ | ○ | | | | | | | | |
| 47000 | | ECJ2VF1H473Z | 0.6 | ○ | ○ | | | | | | | | |
| 100000 | +80, -20 % (Z) | ECJ2VF1H104Z | 0.85 | ○ | ○ | ECJ2VF1E104Z | 0.6 | ○ | ○ | ECJ2VF1C104Z | 0.6 | ○ | ○ |
| 220000 | | ECJ2VF1H224Z | 0.85 | ○ | ○ | ECJ2VF1E224Z | 0.85 | ○ | ○ | ECJ2VF1C224Z | 0.6 | ○ | ○ |
| 470000 | | | | | | ECJ2VF1E474Z | 1.25 | ○ | ○ | ECJ2VF1C474Z | 0.85 | ○ | ○ |

Dimensional tolerance of L, W, T: ± 0.1 mm

Standard packaging quantity of Packaging Style Code "V" (T = 0.6 mm): 5,000 pcs./reel, "V" (T = 0.85 mm): 4,000 pcs./reel, "F" (T = 1.25 mm): 3,000 pcs./reel

Soldering method of dimension T>1 mm: Avoid flow soldering.

For capacitance 1 μF or more, see page 6 and 7 for High Capacitance.