# Chip Type Standard Capacitors (height:5.5mm) Series RV2

- **Compatible with surface mounting for 5.5mm high capacitors.**
- **Supplied with carrier taping.**
- **Guarantees 2000 hours at 85˚C.**

Convert to chip

RV2 ⇦ RC3

Marking color : Black print

## Specifications

| Item | Performance |
|---|---|
| Category temperature range (˚C) | −40 to +85 |
| Tolerance at rated capacitance (%) | ±20 (20˚C,120Hz) |
| Leakage current (μA) | Less than 0.01CV or 3 whichever is larger(after 2 minutes) C: Rated capacitance(μF); V: Rated voltage(V) (20˚C) |

**Tangent of loss angle (tanδ)**

| Rated voltage (V) | | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|---|---|
| tanδ (max.) | ø 3 | 0.42 | 0.30 | 0.24 | 0.22 | 0.16 | 0.14 | 0.12 |
| | ø 4 to ø 6.3 | 0.42 | 0.28 | 0.24 | 0.20 | 0.14 | 0.12 | 0.10 |

(20˚C,120Hz)

**Characteristics at high and low temperature**

| Rated voltage (V) | | | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|---|---|---|
| Impedance ratio (max.) | ø 3 | Z−25˚C / Z+20˚C | 7 | 4 | 3 | 2 | 2 | 2 | 2 |
| | | Z−40˚C / Z+20˚C | 17 | 10 | 8 | 6 | 4 | 3 | 3 |
| | ø 4 to ø 6.3 | Z−25˚C / Z+20˚C | 7 | 3 | 3 | 2 | 2 | 2 | 2 |
| | | Z−40˚C / Z+20˚C | 15 | 8 | 5 | 4 | 3 | 3 | 3 |

(120Hz)

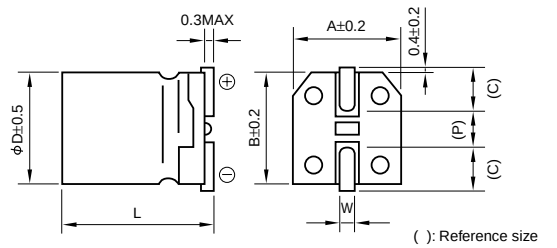
**Endurance (85˚C) (Applied ripple current)**

| | |
|---|---|
| Test time | 2000 hours (ø 3:1000 hours) |
| Leakage current | The initial specified value or less |
| Percentage of capacitance change | Within ±20% of initial value (4WV: ±30%) |
| Tangent of the loss angle | 200% or less of the initial specified value (4WV: 300%) |

| Item | Performance |
|---|---|
| Shelf life (85˚C) | Test time : 1000 hours; other items are the same as those for the endurance. Voltage application treatment : According to JIS C5101-1 |
| Applicable standards | JIS C5101-1, -18 1998 (IEC 60384-1 1992, -18 1993) |

## Outline Drawing

Unit: mm




( ): Reference size

| ø D | L | A | B | C | W | P | Casing symbol |
|---|---|---|---|---|---|---|---|
| 3 | 5.3±0.2 | 3.3 | 3.3 | 1.5 | 0.45 to 0.75 | 0.8 | B55 |
| 4 | 5.3±0.2 | 4.3 | 4.3 | 2.0 | 0.5 to 0.8 | 1.0 | — |
| 5 | 5.3±0.2 | 5.3 | 5.3 | 2.3 | 0.5 to 0.8 | 1.5 | — |
| 6.3 | 5.3±0.2 | 6.6 | 6.6 | 2.7 | 0.5 to 0.8 | 2.0 | — |

- Soldering conditions and land size are described on page 14.
  The taping spesifications are described on page 15.

## Coefficient of Frequency for Rated Ripple Current

| Rated voltage(V) \ Frequency(Hz) | 50 · 60 | 120 | 1k | 10k · 100k |
|---|---|---|---|---|
| 4 to 16 | 0.80 | 1 | 1.15 | 1.25 |
| 25 to 35 | 0.80 | 1 | 1.25 | 1.40 |
| 50 | 0.80 | 1 | 1.35 | 1.50 |

## Part numbering system

**Environmental item**

- ø3 (example: 16V10μF)
  RV2 — 16 V 100 M B55 ⬚ U — ⬚
  Series code / Rated voltage symbol / Rated capacitance symbol / Capacitance tolerance symbol / Casing symbol / Additional symbol / Taping symbol
- ø4 to ø6.3 (example: 16V47μF)
  RV2 — 16 V 470 M ⬚ U — ⬚
  Series code / Rated voltage symbol / Rated capacitance symbol / Capacitance tolerance symbol / Additional symbol / Taping symbol

**Former item**

- ø3 (example: 16V10μF)
  RV2 — 16 V 100 M B55 ⬚ — ⬚
  Series code / Rated voltage symbol / Rated capacitance symbol / Capacitance tolerance symbol / Casing symbol / Additional symbol / Taping symbol
- ø4 to ø6.3 (example: 16V47μF)
  RV2 — 16 V 470 M ⬚ — ⬚
  Series code / Rated voltage symbol / Rated capacitance symbol / Capacitance tolerance symbol / Additional symbol / Taping symbol

- For 16V 100μF, "S" is suffixed to the tolerance, as MS ⬚-⬚

## Standard Ratings

| Rated voltage (V) / Item / Rated capacitance (μF) | 4 | | | | 6.3 | | | | 10 | | | | 16 | | | | 25 | | | | 35 | | | | 50 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Case ø D(mm) | Casing symbol | ESR Ω | Rated ripple current mArms | Case ø D(mm) | Casing symbol | ESR Ω | Rated ripple current mArms | Case ø D(mm) | Casing symbol | ESR Ω | Rated ripple current mArms | Case ø D(mm) | Casing symbol | ESR Ω | Rated ripple current mArms | Case ø D(mm) | Casing symbol | ESR Ω | Rated ripple current mArms | Case ø D(mm) | Casing symbol | ESR Ω | Rated ripple current mArms | Case ø D(mm) | Casing symbol | ESR Ω | Rated ripple current mArms |
| 0.1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 1990 | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 | — | 1660 | 3 |
| 0.22 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 905 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 | — | 754 | 5 |
| 0.33 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 603 | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 | — | 503 | 6 |
| 0.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 424 | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 | — | 353 | 7 |
| 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 199 | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 | — | 166 | 10 |
| 2.2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 106 | 8 | 4 | — | 75 | 15 |
| 3.3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 70 | 9 | 4 | — | 50 | 19 |
| 4.7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | B55 | 57 | 11 | 4 | — | 42 | 20 | 5 | — | 35 | 26 |
| | | | | | | | | | | | | | | | | | 4 | — | 49 | 19 | | | | | | | | |
| 10 | — | — | — | — | — | — | — | — | 4 | — | 40 | 23 | 3 | B55 | 37 | 18 | 5 | — | 23 | 32 | 5 | — | 20 | 34 | 6.3 | — | 17 | 44 |
| | | | | | | | | | | | | | 4 | — | 33 | 26 | | | | | | | | | | | | |
| 22 | 3 | B55 | 32 | 14 | 4 | — | 21 | 31 | 5 | — | 18 | 39 | 5 | — | 15 | 44 | 6.3 | — | 11 | 55 | 6.3 | — | 9.1 | 59 | — | — | — | — |
| 33 | 4 | — | 21 | 31 | 5 | — | 14 | 44 | 5 | — | 12 | 48 | 6.3 | — | 10 | 63 | 6.3 | — | 7.0 | 67 | — | — | — | — | — | — | — | — |
| 47 | 4 | — | 15 | 37 | 5 | — | 10 | 52 | 6.3 | — | 8.5 | 67 | 6.3 | — | 7.1 | 75 | — | — | — | — | — | — | — | — | — | — | — | — |
| 100 | 5 | — | 7.0 | 63 | 6.3 | — | 5.0 | 89 | 6.3 | — | 4.0 | 98 | 6.3 | — | 3.3 | 103 | — | — | — | — | — | — | — | — | — | — | — | — |
| 220 | 6.3 | — | 3.2 | 110 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

(Note) Rated ripple current : 85˚C, 120Hz ; ESR : 20˚C, 120Hz

**NOTE**
**Design, Specifications are subject to change without notice.**
**Ask factory for technical specifications before purchase and/or use.**

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