

Chip Type 105°C Standard Capacitors

GREEN CAP

SMD

105°C
1000hours

Anti-cleaning solvent

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guarantees 1000 hours at 105°C.



High temperature



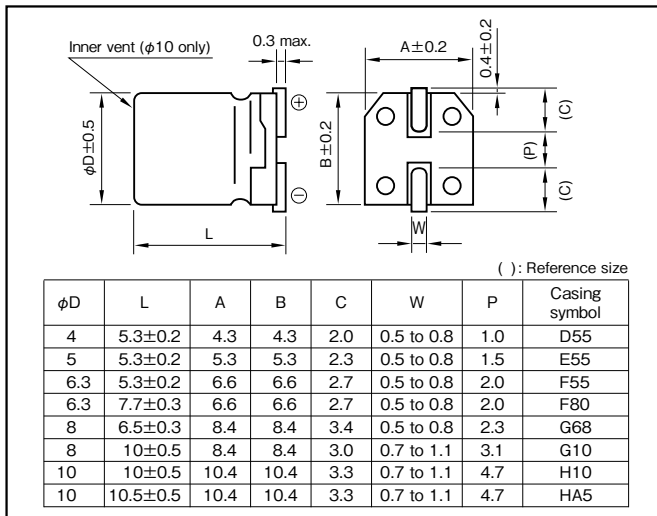
Marking color : Black print

Specifications

| Item | Performance | | | | | | |
|---|---|---|------|------|------|------|------|
| Category temperature range (°C) | -55 to +105 | | | | | | |
| 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) | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | tanδ (max.) | 0.30 | 0.26 | 0.22 | 0.16 | 0.13 | 0.12 |
| Characteristics at high and low temperature | Impedance ratio (max.) | Z-25°C/Z+20°C | 4 | 3 | 2 | 2 | 2 |
| | | Z-40°C/Z+20°C | 8 | 5 | 4 | 3 | 3 |
| Endurance (105°C) (Applied ripple current) | Test time | 1000 hours | | | | | |
| | Leakage current | The initial specified value or less | | | | | |
| | Percentage of capacitance change | Within ±20% of initial value | | | | | |
| | Tangent of the loss angle | 200% or less of the initial specified value | | | | | |
| Shelf life (105°C) | Test time : 1000hours ; other items are same as the endurance. Voltage application treatment : According to JIS C5101-4 | | | | | | |
| Applicable standards | JIS C5101-1 1998, -18 1999 (IEC 60384-1 1992, -18 1993) | | | | | | |

Outline Drawing

Unit : mm



- Soldering conditions are described on page 15.
- Land pattern size are described on page 13.
- The taping specifications are described on page 16.

Coefficient of Frequency for Rated Ripple Current

| Frequency (Hz) | 50·60 | 120 | 1k | 10k·100k |
|-------------------|-------|-----|------|----------|
| Rated voltage (V) | | | | |
| 6.3 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 (example : 16V47µF)

| | | | | | | | | | |
|-------------|---|----------------------|---|--------------------------|------------------------------|---------------|---|---|---------------|
| RVS | — | 16 | V | 470 | M | F55 | U | — | |
| Series code | | Rated voltage symbol | | Rated capacitance symbol | Capacitance tolerance symbol | Casing symbol | | | Taping symbol |

Standard Ratings

| Rated capacitance (μF) | Item | 6.3 | | | 10 | | | 16 | | | 25 | | | 35 | | | 50 | | |
|------------------------|-----------|------------|-------|----------------------|------------|-------|----------------------|------------|-------|----------------------|------------|-------|----------------------|------------|-------|----------------------|------------|-------|----------------------|
| | | Case | ESR | Rated ripple current | Case | ESR | Rated ripple current | Case | ESR | Rated ripple current | Case | ESR | Rated ripple current | Case | ESR | Rated ripple current | Case | ESR | Rated ripple current |
| | | φD × L(mm) | (Ω) | (mAmps) | φD × L(mm) | (Ω) | (mAmps) | φD × L(mm) | (Ω) | (mAmps) | φD × L(mm) | (Ω) | (mAmps) | φD × L(mm) | (Ω) | (mAmps) | φD × L(mm) | (Ω) | (mAmps) |
| 0.22 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 × 5.3 | 905 | 3 | |
| 0.33 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 × 5.3 | 603 | 4 | |
| 0.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 × 5.3 | 424 | 5 | |
| 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 × 5.3 | 199 | 7 | |
| 2.2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 × 5.3 | 91 | 10 | |
| 3.3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 × 5.3 | 60 | 12 | |
| 4.7 | — | — | — | — | — | — | — | — | — | 4 × 5.3 | 57 | 12 | 4 × 5.3 | 46 | 14 | 5 × 5.3 | 42 | 17 | |
| 10 | — | — | — | 4 × 5.3 | 43 | 15 | 4 × 5.3 | 36 | 16 | 5 × 5.3 | 27 | 21 | 5 × 5.3 | 22 | 23 | 6.3 × 5.3 | 20 | 26 | |
| 22 | 4 × 5.3 | 23 | 21 | 5 × 5.3 | 20 | 25 | 5 × 5.3 | 17 | 28 | 6.3 × 5.3 | 12 | 36 | 6.3 × 5.3 | 10 | 50 | 8 × 6.5 | 9.0 | 51 | |
| 33 | 5 × 5.3 | 15 | 30 | 5 × 5.3 | 13 | 31 | 6.3 × 5.3 | 11 | 40 | 6.3 × 5.3 | 8.0 | 44 | 8 × 6.5 | 6.5 | 59 | 6.3 × 7.7 | 6.0 | 60 | |
| 47 | 5 × 5.3 | 11 | 36 | 6.3 × 5.3 | 9.2 | 43 | 6.3 × 5.3 | 7.8 | 47 | 8 × 6.5 | 5.6 | 66 | — | — | — | 6.3 × 7.7 | 4.2 | 63 | |
| 100 | 6.3 × 5.3 | 5.0 | 61 | 6.3 × 5.3 | 4.3 | 60 | 6.3 × 5.3 | 3.6 | 60 | 6.3 × 7.7 | 2.7 | 91 | 6.3 × 7.7 | 2.2 | 84 | 8 × 10 | 2.0 | 140 | |
| 150 | — | — | — | — | — | — | 6.3 × 7.7 | 2.4 | 105 | 8 × 10 | 1.8 | 140 | 8 × 10 | 1.4 | 155 | 10 × 10 | 1.3 | 180 | |
| 220 | 8 × 6.5 | 2.3 | 102 | 6.3 × 7.7 | 2.0 | 105 | 6.3 × 7.7 | 1.7 | 105 | 8 × 10 | 1.2 | 155 | 8 × 10 | 0.98 | 190 | 10 × 10.5 | 0.91 | 220 | |
| 330 | 6.3 × 7.7 | 1.5 | 105 | 8 × 10 | 1.3 | 195 | 8 × 10 | 1.1 | 195 | 8 × 10 | 0.80 | 190 | 10 × 10.5 | 0.65 | 300 | — | — | — | |
| 470 | 8 × 10 | 1.1 | 210 | 8 × 10 | 0.92 | 210 | 8 × 10 | 0.78 | 230 | 10 × 10 | 0.57 | 300 | — | — | — | — | — | — | |
| 680 | 8 × 10 | 0.73 | 210 | 10 × 10 | 0.63 | 310 | 10 × 10 | 0.54 | 310 | — | — | — | — | — | — | — | — | — | |
| 1000 | 8 × 10 | 0.50 | 210 | 10 × 10 | 0.43 | 310 | — | — | — | — | — | — | — | — | — | — | — | — | |
| 1500 | 10 × 10 | 0.33 | 310 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |

(Note) Rated ripple current : 105°C , 120Hz ; ESR : 20°C , 120Hz

ALUMINUM

CHIP ALUMINUM

105°C