

Chip Type, 105°C Use, Large Capacitance Capacitors

GREEN CAP

SMD

105°C
2000hours

Anti-cleaning solvent

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guarantees 2000 hours at 105°C.
($\phi 12.5 \times 13.5L$: 5000 hours at 105°C)



High temperature



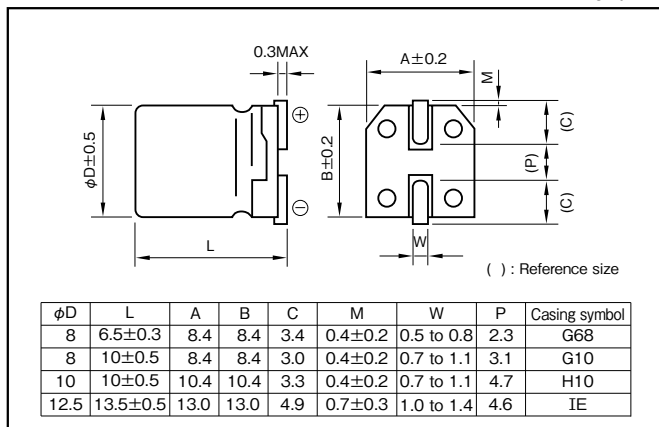
Marking color : Black print ($\phi 8 \times 6.5L$)
White print on a brown sleeve ($\phi 8 \times 10L - \phi 12.5 \times 13.5L$)

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 (tan δ) | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | |
| | tan δ (max.) | 0.30 | 0.24 | 0.22 | 0.16 | 0.13 | 0.12 | 0.11 | 0.10 | (20°C, 120Hz) |
| Characteristics at high and low temperature | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | |
| | Impedance ratio (max.) | Z-25°C/Z+20°C | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Endurance (105°C) (Applied ripple current) | Test time | 2000 hours ($\phi 12.5 \times 13.5L$: 5000 hours) | | | | | | | | |
| | Leakage current | The initial specified value or less | | | | | | | | |
| | Percentage of capacitance change | Within $\pm 20\%$ of initial value | | | | | | | | |
| | Tangent of the loss angle | 200% or less of the initial specified value | | | | | | | | |
| Shelf life (105°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 C 5101-1 1998, -18 1999 (IEC 60384-1 1992, -18 1993) | | | | | | | | | |

Outline Drawing

Unit : mm



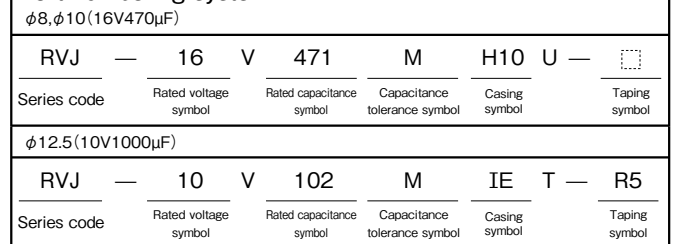
- Soldering conditions are described on page 13.
- Land pattern size are described on page 11.
- The taping specifications are described on page 14.

Coefficient of Frequency for Rated Ripple Current

| Rated voltage (V) | Frequency (Hz) | | | |
|-------------------|----------------|-----|------|------------|
| | 50 · 60 | 120 | 1k | 10k · 100k |
| 6.3 to 16 | 0.80 | 1 | 1.15 | 1.25 |
| 25 to 35 | 0.80 | 1 | 1.25 | 1.40 |
| 50 to 63 | 0.80 | 1 | 1.35 | 1.50 |
| 100 | 0.70 | 1 | 1.35 | 1.50 |

| Rated capacitance (μF) | Frequency (Hz) | | | |
|-------------------------------|----------------|------|------|------|
| | 120 | 1k | 10k | 100k |
| 47 | 0.50 | 0.76 | 0.87 | 1 |
| 100 to 220 | 0.70 | 0.85 | 0.90 | 1 |
| 330 to 1000 | 0.80 | 0.93 | 0.98 | 1 |

Part numbering system



Standard Ratings

| Rated capacitance (μF) | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 100 | | | | |
|-------------------------------|-----------|---------------------------|------|---------------------------|------|---------------------------|-------|---------------------------|------|---------------------------|------|---------------------------|-----------|---------------------------|------|---------------------------|-----|-----|---|
| | Case | Rated ripple current (mA) | Case | Rated ripple current (mA) | Case | Rated ripple current (mA) | Case | Rated ripple current (mA) | Case | Rated ripple current (mA) | Case | Rated ripple current (mA) | Case | Rated ripple current (mA) | Case | Rated ripple current (mA) | | | |
| 10 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | | |
| 22 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | | |
| 33 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | | |
| 47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | | |
| 100 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | | |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | | |
| 220 | 8x10 | G10 | 178 | 8x10 | G10 | 178 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | |
| 330 | 8x10 | G10 | 178 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | 12.5x13.5 | IE | 747* | — | — | — | — |
| 470 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | 12.5x13.5 | IE | 747* | 12.5x13.5 | IE | 747* | — | — | — | — |
| 1000 | 10x10 | H10 | 324 | 10x10 | H10 | 324 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | 12.5x13.5 | IE | 747* | 12.5x13.5 | IE | 747* | — | — | — | — | — | — | — | — | — | — | — | — | — |

NOTE : Design, Specifications are subject to change without notice.
It is recommended that you shall obtain technical specifications from ELNA to ensure that the component is suitable for your use.