# RZH, RMH VERTICAL CHIP TYPE ALUMINUM ELECTROLYTIC CAPACITORS

ELNA

## Chip Type 105°C Capacitors

GREEN CAP | SMD | 105°C 7000hours | Anti-cleaning solvent

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guaranteed 7000 hours at 105°C.
  (φ6.3X5.8L: 5000 hours)

Long life

RZH ⇦ RVC

Marking color : Black print

## Specifications

| Item | Performance |
|---|---|
| Category temperature range (℃) | −55 to +105 |
| Tolerance at rated capacitance (%) | ±20 (20℃,120Hz) |
| Leakage current (μA) (max.) | 0.01CV or 3 whichever is larger (after 2 minutes) C : Rated capacitance (μF) ; V : Rated voltage (V) (20℃) |
| Tangent of loss angle (tanδ) | |
| Characteristics at high and low temperature | |
| Endurance (105℃) (Applied ripple current) | |
| Shelf life (105℃) | Test time : 1000hours ; other items are the same as those for the endurance. Voltage application treatment : According to JIS C5101-4 4.1 |
| Applicable standards | JIS C5101 - 1,- 18 (IEC 60384 - 1,- 18) |

Tangent of loss angle (tanδ):

| Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 |
|---|---|---|---|---|---|
| tanδ (max.) | 0.32 | 0.28 | 0.26 | 0.16 | 0.14 |

(20℃,120Hz)

Characteristics at high and low temperature:

| Rated voltage (V) | | 6.3 | 10 | 16 | 25 | 35 |
|---|---|---|---|---|---|---|
| Impedance ratio (max.) | Z−25℃/Z+20℃ | 2 | 2 | 2 | 2 | 2 |
| | Z−40℃/Z+20℃ | 3 | 3 | 3 | 3 | 3 |
| | Z−55℃/Z+20℃ | 4 | 4 | 4 | 4 | 4 |

(120Hz)

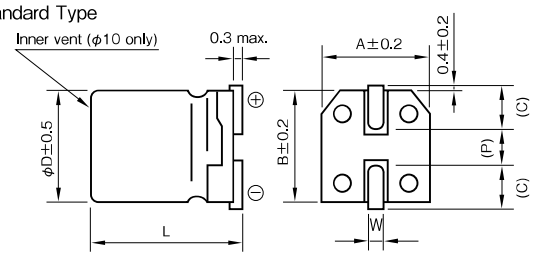
Endurance (105℃) (Applied ripple current):

| | |
|---|---|
| Test time | 7000 hours (φ6.3×5.8L:5000hours) |
| Leakage current | The initial specified value or less |
| Percentage of capacitance change | Within ±30% of initial value |
| Tangent of the loss angle | 300% or less of the initial specified value |

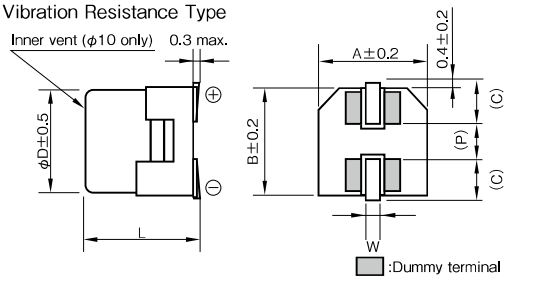
## Outline Drawing

Unit : mm

Standard Type




For Vibration Resistance Type




( ): Reference size

| φD | L | A | B | C | W | P | Casing symbol |
|---|---|---|---|---|---|---|---|
| 6.3 | 5.8±0.3 | 6.6 | 6.6 | 2.7 | 0.5~0.8 | 2.0 | F61 |
| 6.3 | 7.7±0.3 | 6.6 | 6.6 | 2.7 | 0.5~0.8 | 2.0 | F80 |
| 8 | 10±0.5 | 8.4 | 8.4 | 3.0 | 0.7~1.1 | 3.1 | G10 |
| 10 | 10±0.5 | 10.4 | 10.4 | 3.3 | 0.7~1.1 | 4.7 | H10 |

Refer to individual page.
(Soldering conditions, Land pattern size, The taping specifications)

## Coefficient of Frequency for Rated Ripple Current

| Rated voltage (V) \ Frequency (Hz) | 120 | 1k | 10k | 100k |
|---|---|---|---|---|
| 6.3 to 35 | 0.50 | 0.8 | 0.95 | 1 |

## Part numbering system

Standard Type (example : 35V100μF)

| RZH | — | 35 | V | 101 | M | F80 | U | — | □ |
|---|---|---|---|---|---|---|---|---|---|
| Series code | | Rated voltage symbol | | Rated capacitance symbol | Capacitance tolerance symbol | Casing symbol | | | Taping symbol |

For Vibration Resistance Type (example : 35V330μF)

| RMH | — | 35 | V | 331 | M | H10 | U | — | □ |
|---|---|---|---|---|---|---|---|---|---|
| Series code | | Rated voltage symbol | | Rated capacitance symbol | Capacitance tolerance symbol | Casing symbol | | | Taping symbol |

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.

## Standard Ratings

| Rated voltag(V) / Item / Rated capacitance(μF) | 6.3 | | | | 10 | | | | 16 | | | | 25 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Case φD×L (mm) | Casing symbol | ESR (Ω max.) | Rated ripple current (mArms) | Case φD×L (mm) | Casing symbol | ESR (Ω max.) | Rated ripple current (mArms) | Case φD×L (mm) | Casing symbol | ESR (Ω max.) | Rated ripple current (mArms) | Case φD×L (mm) | Casing symbol | ESR (Ω max.) | Rated ripple current (mArms) |
| 33 | — | — | — | — | — | — | — | — | — | — | — | — | 6.3×5.8 | F61 | 1.10 | 140 |
| 47 | — | — | — | — | — | — | — | — | 6.3×5.8 | F61 | 1.10 | 140 | 6.3×5.8 | F61 | 1.10 | 140 |
| 100 | 6.3×5.8 | F61 | 1.10 | 140 | 6.3×5.8 | F61 | 1.10 | 140 | 6.3×5.8 | F61 | 1.10 | 140 | 6.3×7.7 | F80 | 1.00 | 230 |
| 150 | 6.3×5.8 | F61 | 1.10 | 140 | 6.3×5.8 | F61 | 1.10 | 140 | 6.3×5.8 | F61 | 1.10 | 140 | 8×10 | G10 | 0.22 | 600 |
| 220 | 6.3×7.7 | F80 | 1.00 | 230 | 6.3×7.7 | F80 | 1.00 | 230 | 6.3×7.7 | F80 | 1.00 | 230 | 8×10 | G10 | 0.22 | 600 |
| 330 | 6.3×7.7 | F80 | 1.00 | 230 | 8×10 | G10 | 0.22 | 600 | 8×10 | G10 | 0.22 | 600 | 8×10 | G10 | 0.22 | 600 |
| 470 | 8×10 | G10 | 0.22 | 600 | 8×10 | G10 | 0.22 | 600 | 8×10 | G10 | 0.22 | 600 | 10×10 | H10 | 0.16 | 850 |
| | | | | | | | | | 10×10 | H10 | 0.16 | 850 | | | | |
| 680 | 10×10 | H10 | 0.16 | 850 | 10×10 | H10 | 0.16 | 850 | 10×10 | H10 | 0.16 | 850 | — | — | — | — |
| 1000 | 10×10 | H10 | 0.16 | 850 | — | — | — | — | — | — | — | — | — | — | — | — |

| Rated voltag(V) / Item / Rated capacitance(μF) | 35 | | | |
|---|---|---|---|---|
| | Case φD×L (mm) | Casing symbol | ESR (Ω max.) | Rated ripple current (mArms) |
| 22 | 6.3×5.8 | F61 | 1.10 | 140 |
| 33 | 6.3×5.8 | F61 | 1.10 | 140 |
| | 6.3×7.7 | F80 | 1.00 | 230 |
| 47 | 6.3×7.7 | F80 | 1.00 | 230 |
| 100 | 6.3×7.7 | F80 | 1.00 | 230 |
| 150 | 8×10 | G10 | 0.22 | 600 |
| 220 | 8×10 | G10 | 0.22 | 600 |
| 330 | 10×10 | H10 | 0.16 | 850 |

(Note) Rated ripple current : 105℃ , 100kHz ; ESR : 20℃ , 100kHz