



## CAXA SERIES: Snap-In, High Voltage, Flame Retardant



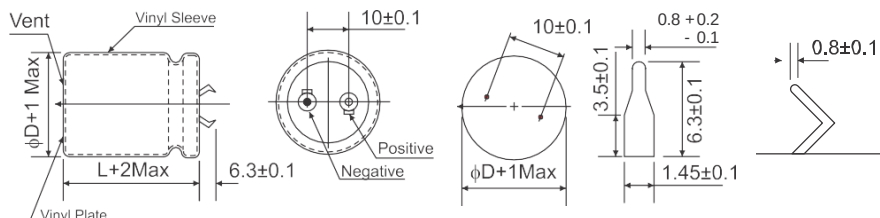
### FEATURES

- ◆ Has a snap-in terminal which can solder to a PCB directly
- ◆ Suitable for electronic equipment with high voltage circuits.
- ◆ Printed circuit board terminal snap-in type and lug terminal type available.
- ◆ Meets UL 94V-0 Flammability
- ◆ RoHS Compliant

### SPECIFICATIONS

| Items                                      | Performance                                                                                                                                                                                                                                                          |                                   |      |      |      |       |                      |  |  |  |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------|------|------|-------|----------------------|--|--|--|
|                                            | CAXA                                                                                                                                                                                                                                                                 |                                   |      |      |      |       | CAXB                 |  |  |  |
| Operating Temperature Range                | -25℃ ~ +85℃                                                                                                                                                                                                                                                          |                                   |      |      |      |       | -25℃ ~ +105℃         |  |  |  |
| Capacitance Tolerance                      | +20% (at 120Hz, 20℃)                                                                                                                                                                                                                                                 |                                   |      |      |      |       | +20% (at 120Hz, 20℃) |  |  |  |
| Leakage Current (at 20℃)                   | 1=3√CV or 1.5 mA whichever is smaller (after 5minutes)<br>Where C=rated capacitance in μF V=rated DC working voltage in V                                                                                                                                            |                                   |      |      |      |       |                      |  |  |  |
| Dissipation Factor (Tan at 120Hz, 20℃)     | Rated Voltage (V)                                                                                                                                                                                                                                                    | 400                               | 450  | 400  | 450  |       |                      |  |  |  |
|                                            | Tan (max)                                                                                                                                                                                                                                                            | 0.15                              | 0.25 | 0.25 | 0.25 |       |                      |  |  |  |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio shall not exceed the values given in the table below.                                                                                                                                                                                                |                                   |      |      |      |       |                      |  |  |  |
|                                            | Rated Voltage (V)                                                                                                                                                                                                                                                    | 400                               | 450  | 400  | 450  |       |                      |  |  |  |
|                                            | Impedance Ratio                                                                                                                                                                                                                                                      | Z(-25℃) / Z(+20℃)                 | 8    | 12   | 12   | 12    |                      |  |  |  |
| Load Life Test                             | Test Time                                                                                                                                                                                                                                                            | 2,000 Hrs                         |      |      |      |       |                      |  |  |  |
|                                            | Capacitance Change                                                                                                                                                                                                                                                   | Within +20% of initial value      |      |      |      |       |                      |  |  |  |
|                                            | Dissipation Factor                                                                                                                                                                                                                                                   | Less than 200% of specified value |      |      |      |       |                      |  |  |  |
|                                            | Leakage Current                                                                                                                                                                                                                                                      | Within specified value            |      |      |      |       |                      |  |  |  |
|                                            | * The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage with ripple current applied for 2,000 hrs at 85℃/ 105℃.                                                                                                |                                   |      |      |      |       |                      |  |  |  |
| Shelf Life Test                            | Test Time                                                                                                                                                                                                                                                            | 1,000 Hrs                         |      |      |      |       |                      |  |  |  |
|                                            | Capacitance Change                                                                                                                                                                                                                                                   | Within +20% of initial value      |      |      |      |       |                      |  |  |  |
|                                            | Dissipation Factor                                                                                                                                                                                                                                                   | Less than 150% of specified value |      |      |      |       |                      |  |  |  |
|                                            | Leakage Current                                                                                                                                                                                                                                                      | Within specified value            |      |      |      |       |                      |  |  |  |
|                                            | * The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hrs at 85℃/ 105℃ without voltage applied. The rated voltage shall be applied to the capacitors before the measurements<br>(Refer to JIS C 5102). |                                   |      |      |      |       |                      |  |  |  |
| Ripple Current & Frequency Multipliers     | Freq. (Hz)                                                                                                                                                                                                                                                           | 60                                | 120  | 500  | 1k   | 10kup |                      |  |  |  |
|                                            | WV                                                                                                                                                                                                                                                                   | 400 ~ 450                         | 0.8  | 1.0  | 1.05 | 1.10  | 1.15                 |  |  |  |
| Ripple Current & Temperature Multipliers   | Temperature (℃)                                                                                                                                                                                                                                                      | 40                                | 60   | 70   | 85   | 105   |                      |  |  |  |
|                                            | Multiplier                                                                                                                                                                                                                                                           | 1.8                               | 1.4  | 1.2  | 1.0  | 1.0   |                      |  |  |  |
| Standards                                  | JIS C 5101-4                                                                                                                                                                                                                                                         |                                   |      |      |      |       |                      |  |  |  |

### SNAP-IN TERMINAL TYPE - CAXA/CAXB



### PART NUMBER EXAMPLE

#### CAXA101 M 2G 220 300

- Blank 6.3mm Terminal
- A = 4mm Terminal
- Case Size (Diameter X Length)mm
- Rate Voltage (400V)
- Capacitance tolerance ( $\pm 20\%$ )
- Capacitance (100 $\mu$ F)
- Series name

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### DIMENSIONS & PERMISSABLE RIPPLE CURRENT

Dimension:  $\phi$  DxL (mm); Ripple Current: A/rMS at 120 Hz 85°C (CAXA) / 105°C (CAXB)

| V.DC<br>uF<br>DxL |     | CAXA Series |      |           |      | CAXB Series |      |           |      |
|-------------------|-----|-------------|------|-----------|------|-------------|------|-----------|------|
|                   |     | 400V (2G)   |      | 450V (2W) |      | 400V (2G)   |      | 450V (2W) |      |
|                   |     | Size        | mA   | Size      | mA   | Size        | mA   | Size      | mA   |
| 47                | 477 |             |      |           |      |             |      | 22 x 25   | 0.42 |
| 56                | 567 |             |      | 20 x 25   | 0.58 |             |      | 22 x 30   | 0.51 |
| 68                | 687 | 20 x 25     | 0.71 | 20 x 30   | 0.67 | 22 x 25     | 0.34 | 25 x 25   | 0.50 |
|                   |     |             |      | 22 x 25   | 0.68 |             |      | 22 x 35   | 0.61 |
|                   |     | 20 x 30     | 0.78 | 20 x 35   | 0.76 | 22 x 30     | 0.58 | 25 x 30   | 0.59 |
| 82                | 827 | 22 x 25     | 0.80 | 22 x 30   | 0.82 |             |      | 22 x 35   | 0.67 |
|                   |     |             |      |           |      |             |      | 25 x 30   | 0.65 |
|                   |     |             |      |           |      |             |      | 30 x 25   | 0.62 |
| 100               | 107 | 20 x 30     | 0.90 | 20 x 35   | 0.84 | 22 x 30     | 0.64 | 22 x 40   | 0.78 |
|                   |     | 22 x 30     | 0.94 | 22 x 35   | 0.90 | 25 x 25     | 0.64 | 25 x 35   | 0.76 |
|                   |     |             |      | 25 x 25   | 0.92 |             |      | 30 x 25   | 0.69 |
| 120               | 127 | 20 x 35     | 1.02 | 20 x 40   | 0.94 | 22 x 35     | 0.67 | 22 x 45   | 0.9  |
|                   |     | 22 x 30     | 1.04 | 22 x 35   | 1.02 | 25 x 30     | 0.69 | 25 x 40   | 0.89 |
|                   |     | 25 x 25     | 1.08 | 25 x 30   | 1.04 | 30 x 25     | 0.76 | 30 x 30   | 0.81 |
|                   |     |             |      | 30 x 25   | 1.07 |             |      | 35 x 25   | 0.72 |
| 150               | 157 | 20 x 40     | 1.16 | 22 x 45   | 1.12 | 22 x 40     | 0.77 | 25 x 45   | 1.04 |
|                   |     | 22 x 35     | 1.18 | 25 x 35   | 1.19 | 25 x 35     | 0.78 | 30 x 35   | 0.97 |
|                   |     | 25 x 30     | 1.21 | 30 x 30   | 1.23 | 30 x 30     | 0.76 | 35 x 30   | 0.86 |
| 180               | 187 | 22 x 40     | 1.34 | 22 x 50   | 1.26 | 22 x 45     | 0.92 | 25 x 50   | 1.20 |
|                   |     | 25 x 35     | 1.37 | 25 x 40   | 1.33 | 25 x 40     | 0.81 |           |      |
|                   |     | 30 x 25     | 1.45 | 30 x 30   | 1.38 | 30 x 30     | 0.82 |           |      |
|                   |     |             |      |           |      | 35 x 25     | 0.90 |           |      |
| 220               | 227 | 22 x 45     | 1.50 | 25 x 45   | 1.51 | 25 x 45     | 0.93 | 30 x 40   | 1.12 |
|                   |     | 25 x 35     | 1.56 | 30 x 35   | 1.69 | 30 x 35     | 0.91 | 30 x 45   | 1.30 |
|                   |     | 30 x 30     | 1.58 | 35 x 30   | 1.71 | 35 x 30     | 1.08 | 35 x 35   | 1.00 |
|                   |     |             |      | 30 x 40   | 1.72 |             |      | 35 x 35   | 1.11 |
| 270               | 277 | 25 x 45     | 1.70 | 25 x 50   | 1.65 | 25 x 50     | 1.21 | 30 x 50   | 1.51 |
|                   |     | 30 x 35     | 1.73 | 30 x 40   | 1.80 | 30 x 40     | 1.10 | 35 x 45   | 1.36 |
|                   |     |             |      | 35 x 35   | 1.81 | 35 x 35     | 1.12 |           |      |
| 330               | 337 | 25 x 50     | 1.90 | 30 x 40   | 1.85 | 30 x 45     | 1.39 | 35 x 50   | 1.58 |
|                   |     | 30 x 40     | 1.97 | 35 x 35   | 2.05 | 35 x 35     | 1.18 |           |      |
|                   |     | 35 x 30     | 1.95 | 30 x 45   | 2.02 |             |      |           |      |
| 390               | 397 | 30 x 40     | 2.15 | 30 x 50   | 2.24 | 30 x 50     | 1.55 |           |      |
|                   |     | 35 x 35     | 2.17 |           |      | 35 x 40     | 1.27 |           |      |
| 470               | 477 | 30 x 50     | 2.39 | 35 x 40   | 2.27 | 35 x 45     | 1.62 |           |      |
|                   |     | 35 x 40     | 2.42 |           |      |             |      |           |      |
| 560               | 567 | 35 x 45     | 2.71 | 35 x 45   | 2.55 |             |      |           |      |
| 680               | 687 | 35 x 50     | 2.95 | 35 x 50   | 2.60 |             |      |           |      |