



Surface Mount Type 105°C Standard

CAE-NT series (6.3 to 63V) has stable characteristics at the temperature of wide range (-55 to +105°C), and solvent proof (within 2 minutes).



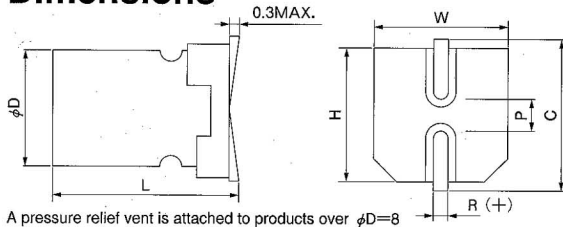
RoHS Compliant

*See Part Number System for Details

Specifications

| Items | | Specifications | | | | | | | |
|---|--------------|--|------|------|------|------|------|------|------|
| Rated voltage (V) | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
| Operating temperature range (°C) | | -55 to +105 | | | | | | | |
| Capacitance tolerance (%) | | ±20 (120Hz) | | | | | | | |
| Tangent of loss angle (tan δ) (MAX.) (120Hz) | φ4 to φ6.3 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.10 | 0.12 | 0.10 |
| | φ8 to φ16 | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 | 0.10 |
| | | 0.02 to be added to the above value every time nominal capacitance exceeds 1000 μF. | | | | | | | |
| Leakage current (L.C.) (μA/after 2min.) (MAX.) | | The greater value of either 0.01CV or 3 | | | | | | | |
| Impedance (120Hz) ratio at low temperature (MAX.) | Z-40°C/Z20°C | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |
| | Z-55°C/Z20°C | 8 | 5 | 4 | 3 | 3 | 3 | 3 | — |
| High-temperature load 105°C rated voltage applied | Test time | 2000hrs. (φD ≤ 6.3, φ10×7.7 : 1000hrs.) | | | | | | | |
| | ΔC/C | Within ± 25% of the initial value | | | | | | | |
| | tan δ | ≤ Twice the initial standard | | | | | | | |
| | L.C. | ≤ The initial standard | | | | | | | |
| Resistance to soldering heat | Test | Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature. | | | | | | | |
| | ΔC/C | Within ± 10% of the initial value | | | | | | | |
| | tan δ | ≤ The initial standard | | | | | | | |
| | L.C. | ≤ The initial standard | | | | | | | |
| Other characteristics | | Conform to IEC 60384-18 | | | | | | | |

Dimensions



A pressure relief vent is attached to products over φD=8

(Unit :mm)

| D+0.5MAX. | L | W ±0.2 | H ±0.2 | C ±0.2 | R | P ±0.2 |
|-----------|-------------------------------------|--------|--------|--------|------------|--------|
| 4 | 5.4 ^{+0.1} _{-0.2} | 4.3 | 4.3 | 5.0 | 0.5 to 0.8 | 1.0 |
| 5 | 5.4 ^{+0.1} _{-0.2} | 5.3 | 5.3 | 6.0 | 0.5 to 0.8 | 1.4 |
| 6.3 | 5.4 ^{+0.1} _{-0.2} | 6.6 | 6.6 | 7.3 | 0.5 to 0.8 | 1.0 |
| 4 | 6.0 ±0.3 | 4.3 | 4.3 | 5.0 | 0.5 to 0.8 | 2.2 |
| 6.3 | 6.0 ±0.3 | 6.6 | 6.6 | 7.3 | 0.5 to 0.8 | 2.2 |
| 6.3 | 7.7 ±0.3 | 6.6 | 6.6 | 7.3 | 0.5 to 0.8 | 2.2 |
| 8 | 10.2 ±0.3 | 8.3 | 8.3 | 9.0 | 0.7 to 1.0 | 3.2 |
| 10 | 7.7 ±0.3 | 10.3 | 10.3 | 11.0 | 1.1 to 1.4 | 4.6 |
| 10 | 10.2 ±0.3 | 10.3 | 10.3 | 11.0 | 1.1 to 1.4 | 4.6 |
| 12.5 | 13.5 ±0.5 | 12.8 | 12.8 | 13.5 | 1.1 to 1.4 | 4.6 |
| 16 | 16.5 ±0.5 | 16.3 | 16.3 | 17.0 | 1.8 to 2.1 | 7.0 |

Size List

| μF | V | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
|-------------|-------------|---------------|---------------|-------------|---------------|---------------|------------------|------------------|------------|
| 0.1 to 0.47 | | | | | | | 4×5.4 0.7 to 3.5 | 4×5.4 0.7 to 3.5 | |
| 1.0 | | | | | | | 4×5.4 7 | 4×5.4 7 | 4×6.0 7 |
| 2.2 | | | | | | | 4×5.4 11 | 4×5.4 11 | 6.3×6.0 14 |
| 3.3 | | | | | | | 4×5.4 13 | 5×5.4 14 | 6.3×6.0 20 |
| 4.7 | | | | | 4×5.4 13 | 4×5.4 14 | 5×5.4 16 | 5×5.4 16 | 6.3×6.0 25 |
| 10 | | | | 4×5.4 18 | 5×5.4 20 | 5×5.4 21 | 6.3×5.4 24 | 6.3×5.4 24 | 6.3×7.7 35 |
| 22 | 4×5.4 22 | 5×5.4 25 | 5×5.4 27 | 6.3×5.4 36 | 6.3×5.4 38 | 6.3×6.0 42 | 6.3×7.7 49 | 6.3×7.7 49 | 8×10.2 84 |
| 33 | 5×5.4 27 | 5×5.4 30 | 6.3×5.4 40 | 6.3×5.4 44 | 6.3×6.0 42 | 6.3×7.7 60 | 8×10.2 112 | 10×10.2 133 | |
| 47 | 5×5.4 33 | 6.3×5.4 41 | 6.3×5.4 48 | 6.3×6.0 48 | 6.3×6.0 49 | 6.3×7.7 63 | 8×10.2 119 | 12.5×13.5 240 | |
| 68 | | | | | | | 8×10.2 126 | 12.5×13.5 245 | |
| 82 | | | | | | | 10×7.7 140 | | |
| 100 | 6.3×5.4 50 | 6.3×5.4 53 | 6.3×5.4 60 | 6.3×7.7 91 | 6.3×7.7 84 | 8×10.2 140 | 10×10.2 196 | 16×16.5 490 | |
| 150 | | 6.3×6.0 62 | 6.3×7.7 95 | 8×10.2 140 | 8×10.2 155 | 10×7.7 155 | | 16×16.5 500 | |
| 220 | 6.3×6.0 67 | 6.3×7.7 105 | 6.3×7.7 105 | 8×10.2 175 | 8×10.2 190 | 10×10.2 220 | 12.5×13.5 287 | | |
| 330 | 6.3×7.7 105 | 8×10.2 195 | 8×10.2 195 | 8×10.2 220 | 10×10.2 300 | 12.5×13.5 365 | | | |
| 390 | | | 10×7.7 195 | | | 12.5×13.5 380 | | | |
| 470 | 8×10.2 210 | 8×10.2 210 | 8×10.2 230 | 10×10.2 300 | 12.5×13.5 410 | | 16×16.5 630 | | |
| 680 | | | 10×10.2 310 | | | 12.5×13.5 430 | | | |
| 1000 | 10×7.7 210 | | | | | | | | |
| 1500 | 8×10.2 230 | 10×10.2 310 | | | 12.5×13.5 460 | | 16×16.5 655 | | |
| 2200 | 10×10.2 310 | | 12.5×13.5 510 | | | 16×16.5 740 | | | |
| 3300 | | 12.5×13.5 520 | | 16×16.5 840 | | | | | |
| 4700 | | | 16×16.5 880 | | | | | | |
| 6800 | 16×16.5 930 | | | | | | | | |

Model No. 16CAE470NT

Capacitance symbol
Rated voltage

φDXL

Ripple current
mA r.m.s.
(120Hz, 105°C)

*Add "V" suffix for optional RoHS compliant parts