

CADD SERIES: 105C, up to 10,000 hours**FEATURES**

- ◆ 105°C, 8,000 ~ 10,000 hours assured
- ◆ Suitable for switching power supplies, UPS, Ballast
- ◆ Smaller size with large permissible ripple current
- ◆ RoHS Compliant

SPECIFICATIONS

| Items | | Performance | | | | | |
|--|--------------------|--|------|-----------------------|---------|----------------------|----------------------|
| Rated Voltage Range | | 160 ~ 400V | | 450V | | | |
| Operating Temperature Range | | -40°C ~ +105°C | | | | -25°C ~ +105°C | |
| Capacitance Tolerance | | +20% (at 120Hz, 20°C) | | | | | |
| Leakage Current (at 20 °C) | Time | after 1 minute | | after 5 minutes | | | |
| | Leakage Current | CV ≤ 1000 | | CV ≥ 1000 | | CV ≤ 1000 | CV ≥ 1000 |
| | | I = 0.1CV + 40 (μA) | | I = 0.04CV + 100 (μA) | | I = 0.03CV + 15 (μA) | I = 0.02CV + 25 (μA) |
| Where C = rated capacitance in μF , V = rated DC working voltage in V. | | | | | | | |
| Dissipation Factor (Tan δ at 120Hz, 20 °C) | Rated Voltage | 200 | 250 | 350 | 400 | 450 | |
| | Tan δ (max) | 0.20 | 0.20 | 0.24 | 0.24 | 0.24 | |
| Impedance ratio shall not exceed the values given in the table below. | | | | | | | |
| Low Temperature Characteristics (at 120Hz) | Rated Voltage | 200 | 250 | 350 | 400 | 450 | |
| | Impedance | Z (-25) / Z (+20°C) | 3 | 3 | 5 | 5 | |
| | Ratio | Z (-40) / Z (+20°C) | 6 | 6 | 6 | - | |
| Load Life Test | Test Time | 8,000 hrs for $\Phi D = 10\text{mm}$; 10,000 hrs for $\Phi D > 12.5\text{mm}$ | | | | | |
| | 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°C after the rated voltage applied with rated ripple current for 8,000 hrs / 10,000 hrs at 105°C. | | | | | | | |
| Shelf Life Test | Capacitance Change | Within + 20% of initial value | | | | | |
| | Dissipation Factor | Less than 200% of specified value | | | | | |
| | Leakage Current | Less than 500% of specified value | | | | | |
| * The above specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hrs at 105°C without voltage applied. The rated voltage shall be applied to the capacitors before the measurements (Refer to JIS C 5102). | | | | | | | |
| Ripple Current & Frequency Multipliers | Freq. (Hz) | 120 | 1k | 10k | 100k up | | |
| | ΦD (mm) | 10 | 0.25 | 0.61 | 0.88 | 1.0 | |
| | | 12.5 ~ 18 | 0.35 | 0.66 | 0.89 | 1.0 | |
| Other Standards | JIS C 5101-4 | | | | | | |

PART NUMBER EXAMPLE

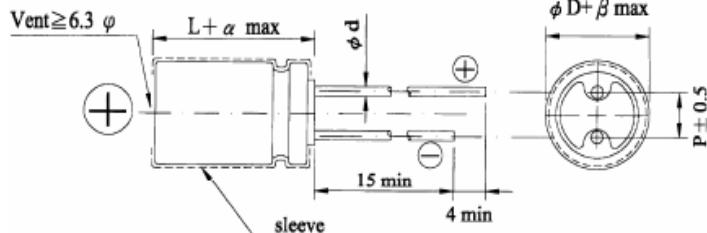
CADD 226 M 1C B 050 110

| Code | Lead Forming Type |
|------|-------------------------------|
| O | Bulk |
| T | 5mm Chip tape |
| A | (Φ4~Φ6.3)2.5mm tape |
| F | (Φ4~Φ8)5mm tape |
| P | Φ≥Φ8mm original(vertical)tape |
| M | 5mm Lead forming |
| C | C Lead forming |
| B | B Lead forming |
| D | (Φ4~Φ8)2.5mm Lead forming |

DIMENSIONS

Unit: mm

| | | | | |
|----|-----|------|-----|----|
| ΦD | 10 | 12.5 | 16 | 18 |
| P | 5.0 | | 7.5 | |
| φd | 0.6 | | 0.8 | |
| α | | 1.5 | | |
| β | | 0.5 | | |



CADD SERIES: 105C, up to 10,000 hours**DIMENSIONS & PERMISSIBLE RIPPLE CURRENT**

Ripple Current: mA/rms at 105°C

| V.D C μF | Item | 160V (2C) | | | 200V (2D) | | | 250V (2E) | | |
|-------------|-----------|-----------|--------|----------------|-----------|-------|----------------|-----------|--------|----------------|
| | | φD x L | | Ripple Current | φD x L | | Ripple Current | φD x L | | Ripple Current |
| | | 120Hz | 100kHz | 120Hz | 100kHz | 120Hz | 100kHz | 120Hz | 100kHz | 120Hz |
| 10 | 10 x 16 | 125 | 315 | 10 x 16 | 125 | 315 | 10 x 20 | 140 | 350.00 | |
| 22 | 10 x 20 | 200 | 500 | 10 x 20 | 200 | 500 | 10 x 20 | 200 | 500 | |
| 33 | 10 x 20 | 250 | 625 | 10 x 20 | 260 | 650 | 12.5 x 20 | 320 | 800 | |
| 47 | 10 x 20 | 300 | 750 | 12.5 x 20 | 390 | 975 | 12.5 x 20 | 390 | 975 | |
| 68 | 12.5 x 20 | 470 | 1,175 | 12.5 x 20 | 470 | 1,175 | 16 x 20 | 520 | 1,300 | |
| 82 | 12.5 x 20 | 510 | 1,275 | 16 x 20 | 550 | 1,375 | 16 x 20 | 550 | 1,375 | |
| 100 | 12.5 x 25 | 620 | 1,395 | 16 x 20 | 630 | 1,420 | 16 x 25 | 680 | 1,530 | |
| | 16 x 20 | 630 | 1,420 | | | | | | | |
| 150 | 16 x 20 | 770 | 1,735 | 16 x 25 | 840 | 1,890 | 18 x 25 | 860 | 1,935 | |
| 220 | 16 x 25 | 1,020 | 2,295 | 18 x 25 | 1,050 | 2,365 | 18 x 31.5 | 1,130 | 2,545 | |
| 330 | 18 x 31.5 | 1,390 | 3,130 | 18 x 35.5 | 1,430 | 3,220 | | | | |

| V.D C μF | Item | 350V (2V) | | | 400V (2G) | | | 450V (2W) | | |
|-------------|-----------|-----------|--------|----------------|-----------|-------|----------------|-----------|--------|----------------|
| | | φD x L | | Ripple Current | φD x L | | Ripple Current | φD x L | | Ripple Current |
| | | 120Hz | 100kHz | 120Hz | 100kHz | 120Hz | 100kHz | 120Hz | 100kHz | 120Hz |
| 6.8 | 10 x 16 | 110 | 275 | 10 x 16 | 110 | 275 | 10 x 20 | 110 | 275 | |
| 10 | 10 x 20 | 140 | 350 | 10 x 20 | 140 | 350 | 12.5 x 20 | 180 | 450 | |
| 22 | 12.5 x 20 | 260 | 650 | 12.5 x 20 | 260 | 650 | 16 x 20 | 290 | 725 | |
| 33 | 16 x 20 | 360 | 900 | 16 x 20 | 360 | 900 | 16 x 25 | 390 | 975 | |
| | | | | | | | 18 x 20 | 380 | 950 | |
| 47 | 16 x 20 | 430 | 1,075 | 16 x 25 | 470 | 1,175 | 18 x 25 | 480 | 1,200 | |
| | | | | 18 x 20 | 450 | 1,125 | | | | |
| 68 | 16 x 25 | 560 | 1,400 | 18 x 25 | 585 | 1,465 | 18 x 31.5 | 630 | 1,575 | |
| | 18 x 20 | 550 | 1,375 | | | | | | | |
| 82 | 18 x 25 | 610 | 1,525 | 18 x 25 | 610 | 1,525 | 18 x 35.5 | 715 | 1,785 | |
| 100 | 18 x 25 | 700 | 1,575 | 18 x 31.5 | 765 | 1,720 | 18 x 40 | 800 | 1,800 | |
| 120 | 18 x 31.5 | 830 | 1,865 | 18 x 35.5 | 865 | 1,945 | | | | |
| 150 | 18 x 35.5 | 960 | 2,160 | 18 x 40 | 985 | 2,215 | | | | |