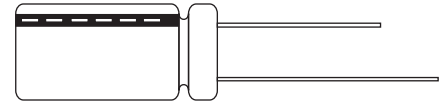


FEATURES

- 85°C, 2000 hours assured, standard bi-polar series.
- Suitable for use in circuits which have a reversed or unknown polarity.
- RoHS Compliant
- See RNG for 105°C, SN for 7mm can, SSN for 5mm can.



SPECIFICATIONS

| Item | Performance | | | | | | | | | | | | | | | | |
|---|--|--|------|------|------|---|------|------|------|---------------------------------|------|------|---|-----------------------------------|--|--|--|
| Operating Temp. | -40° ~ +85°C | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ± 20% (120Hz, 20°C) | | | | | | | | | | | | | | | | |
| Leakage Current (at 20°C) | Rated Voltage | ≤ 100V | | | | ≥ 100V | | | | | | | | | | | |
| | Time | After 2 minutes | | | | After 5 minutes | | | | | | | | | | | |
| | Leakage Current | I=0.03CV or 4 (μA) whichever is greater | | | | CV ≤ 1000 I=0.03CV + 15 (μA) | | | | CV > 1000 I=0.02CV + 25 (μA) | | | | | | | |
| | Where, C = rated capacitance in μF, V = rated DC working voltage in V. | | | | | | | | | | | | | | | | |
| Dissipation Factor Tan δ at 120 Hz, 20°C | Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | | | | | |
| | Tan δ (max) | 0.25 | 0.22 | 0.18 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.15 | 0.15 | 0.20 | | | | | |
| When the capacitance exceeds 1000 μF, 0.02 shall be added every 1000 μF increase | | | | | | | | | | | | | | | | | |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio shall not exceed the values given in the table below. | | | | | | | | | | | | | | | | |
| | Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | | | | | |
| | Impedance Ratio | Z(-25°C)/Z(+20°C) | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | |
| Load Life Test at 20°C (after rated voltage is applied for 2000 hours at 85°C) | Test Time | 2000 Hrs | | | | Shelf Life Test at 20°C | | | | Test Time | | | | 1000 Hrs | | | |
| | Capacitance Change | ≤ ± 20% | | | | after rated voltage applied for 1000 hours | | | | Capacitance Change | | | | ≤ ± 20% | | | |
| | Dissipation Factor | Less than 200% of specific value | | | | at 85°C) | | | | Dissipation Factor | | | | Less than 200% of specified value | | | |
| | Leakage Current | Within specified values | | | | at 85°C) | | | | Leakage Current | | | | Within specified value | | | |
| Standards | Satisfies Characteristic W of JIS C 5141 | | | | | | | | | | | | | | | | |

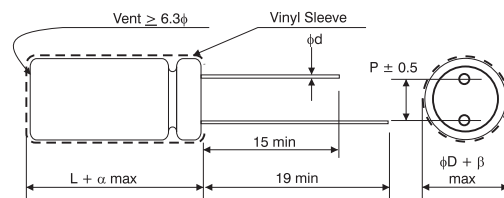
DIMENSIONS & PERMISSIBLE RIPPLE CURRENT

Dimension: D×L(mm); Ripple Current: mA/RMS at 120Hz 85°C

| F | VDC Code | 6.3V(OJ) | | 10V(1A) | | 16V(1C) | | 25V(1E) | | 35V(1V) | | 50V(1H) | | 63V(1J)H | | 100V(2A) | | 160V(2C) | | 200V(2D) | | 250V(2E) | |
|------|-------------|-----------|-----|-----------|-----|-----------|------|-----------|------|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| | | DXL | mA | DXL | mA | DXL | mA | DXL | mA | DXL | m | DXL | mA | DXL | m | DXL | m | DXL | m | DXL | m | DXL | m |
| 0.1 | 0R1 | | | | | | | | | | | 5 x 11 | 4 | 5 x 11 | 5 | 5 x 11 | 5 | | | | | | |
| 0.22 | R22 | | | | | | | | | | | 5 x 11 | 7 | 5 x 11 | 8 | 5 x 11 | 8 | | | | | | |
| 0.33 | R33 | | | | | | | | | | | 5 x 11 | 8 | 5 x 11 | 10 | 5 x 11 | 10 | | | | | | |
| 0.47 | R47 | | | | | | | | | | | 5 x 11 | 10 | 5 x 11 | 12 | 5 x 11 | 12 | 5 x 11 | 10 | 5 x 11 | 10 | 6.3 x 11 | 12 |
| 1 | 010 | | | | | | | | | | | 5 x 11 | 15 | 5 x 11 | 18 | 5 x 11 | 23 | 6.3 x 11 | 14 | 8 x 11.5 | 16 | 8 x 11.5 | 16 |
| 2.2 | 2R2 | | | | | | | | | | | 5 x 11 | 23 | 5 x 11 | 25 | 6.3 x 11 | 26 | 8 x 11.5 | 23 | 8 x 11.5 | 28 | 10 x 12.5 | 32 |
| 3.3 | 3R3 | | | | | | | | | | | 5 x 11 | 28 | 5 x 11 | 31 | 6.3 x 11 | 32 | 8 x 11.5 | 33 | 10 x 12.5 | 33 | 10 x 16 | 46 |
| 4.7 | 4R7 | | | | | | | | | 5 x 11 | 32 | 5 x 11 | 34 | 6.3 x 11 | 37 | 6.3 x 11 | 40 | 10 x 12.5 | 39 | 10 x 16 | 46 | 10 x 20 | 62 |
| 10 | 100 | | | | | 5 x 11 | 40 | 5 x 11 | 42 | 5 x 11 | 46 | 6.3 x 11 | 55 | 6.3 x 11 | 60 | 8 x 11.5 | 66 | 10 x 16 | 75 | 10 x 20 | 83 | 10 x 20 | 99 |
| 22 | 220 | 5 x 11 | 50 | 5 x 11 | 56 | 5 x 11 | 59 | 6.3 x 11 | 63 | 6.3 x 11 | 76 | 8 x 11.5 | 82 | 8 x 11.5 | 90 | 10 x 16 | 120 | 12.5 x 20 | 146 | 12.5 x 20 | 146 | 12.5 x 25 | 172 |
| 33 | 330 | 5 x 11 | 62 | 5 x 11 | 69 | 5 x 11 | 73 | 6.3 x 11 | 78 | 8 x 11.5 | 94 | 8 x 11.5 | 104 | 10 x 12.5 | 135 | 10 x 20 | 175 | 12.5 x 20 | 179 | 12.5 x 25 | 197 | 16 x 25 | 211 |
| 47 | 470 | 5 x 11 | 74 | 5 x 11 | 82 | 6.3 x 11 | 88 | 6.3 x 11 | 95 | 8 x 11.5 | 115 | 10 x 12.5 | 135 | 10 x 16 | 175 | 12.5 x 20 | 200 | 12.5 x 25 | 235 | | | | |
| 100 | 101 | 6.3 x 11 | 108 | 6.3 x 11 | 120 | 8 x 11.5 | 149 | 8 x 11.5 | 155 | 10 x 16 | 202 | 10 x 20 | 229 | 12.5 x 20 | 270 | 16 x 25 | 315 | | | | | | |
| 220 | 221 | 8 x 11.5 | 181 | 8 x 11.5 | 200 | 10 x 12.5 | 240 | 10 x 16 | 294 | 12.5 x 20 | 335 | 12.5 x 25 | 378 | 16 x 25 | 443 | 16 x 35.5 | 498 | | | | | | |
| 330 | 331 | 8 x 11.5 | 236 | 10 x 16 | 308 | 10 x 16 | 330 | 12.5 x 20 | 384 | 12.5 x 20 | 429 | 16 x 25 | 496 | 16 x 31.5 | 653 | | | | | | | | |
| 470 | 471 | 10 x 12.5 | 329 | 10 x 16 | 365 | 10 x 20 | 435 | 12.5 x 25 | 479 | 16 x 25 | 548 | 16 x 25 | 590 | 18 x 35.5 | 815 | | | | | | | | |
| 1000 | 102 | 10 x 20 | 502 | 12.5 x 20 | 598 | 12.5 x 25 | 659 | 16 x 25 | 700 | 16 x 31.5 | 880 | 16 x 31.5 | 920 | | | | | | | | | | |
| 2200 | 222 | 12.5 x 25 | 829 | 16 x 25 | 992 | 16 x 31.5 | 1114 | 18 x 35.5 | 1347 | | | | | | | | | | | | | | |

LEAD SPACING AND DIAMETER

| D | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
|---|-----|-----|-----|-----|------|-----|-----|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| d | 0.5 | | 0.6 | | | 0.8 | |
| α | 1.0 | | | 1.5 | | | |
| β | 0.5 | | | | | | |



PART NUMBER EXAMPLE

RN 010 M 2A BK 050 110