

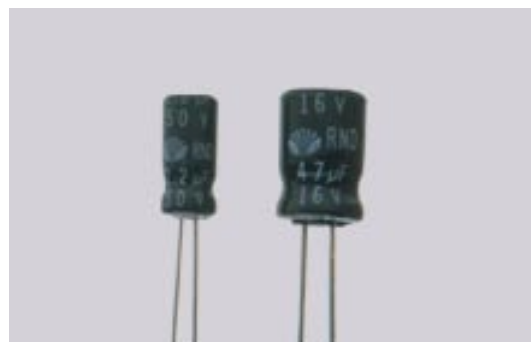
# RND SERIES

## ALUMINUM ELECTROLYTIC CAPACITORS

Bi-Polar Standard, Radial Leads

### Features

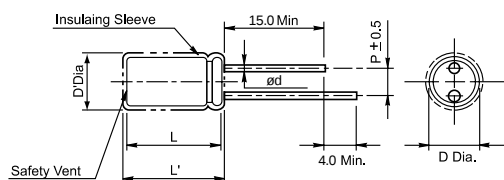
- Bi-polar (Radial)
- Ideal for inconsistent polarity circuits
- For the compaction of equipment
- load life of 1000 hours at 85°C



### Specifications

| Item                                                                      | Performance Characteristics                                                                                                                                                                                                                                     |                                        |    |    |    |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----|----|----|
| Operating temperature range                                               | -40°C ~ +85°C                                                                                                                                                                                                                                                   |                                        |    |    |    |
| Rated working voltage range                                               | 10V ~ 50V                                                                                                                                                                                                                                                       |                                        |    |    |    |
| Nominal capacitance range                                                 | 0.47μF ~ 1000μF, ±20%(at 20°C, 120Hz)                                                                                                                                                                                                                           |                                        |    |    |    |
| D.C Leakage current(at 20°C)                                              | The following specifications shall be satisfied when the rated voltage is applied for the required time.<br><br>I ≤ 0.03CV + 3μA(3 min)<br>Where I=Leakage current (μA)                      C=Nominal capacitance(μF)                      V=Rated voltage (V) |                                        |    |    |    |
| Tanδ (max., at 20°C, 120Hz)                                               | W.V (V)                                                                                                                                                                                                                                                         | 10                                     | 16 | 25 | 50 |
|                                                                           | δ                                                                                                                                                                                                                                                               |                                        |    |    |    |
| Characteristics<br>at low temperature(max.)<br>(impedance ratio at 120Hz) | W.V (V)                                                                                                                                                                                                                                                         | 10                                     | 16 | 25 | 50 |
|                                                                           | Z-25°C/Z20°C                                                                                                                                                                                                                                                    | 3                                      | 2  | 2  | 2  |
|                                                                           |                                                                                                                                                                                                                                                                 |                                        |    |    |    |
| Load life                                                                 | After applying rated working voltage for 1000 hours at +85°C with the polarity inverted every                                                                                                                                                                   |                                        |    |    |    |
|                                                                           | 250 hours and then being stabilized at +20°C, capacitors shall meet following limits. δ                                                                                                                                                                         |                                        |    |    |    |
|                                                                           | Capacitance change                                                                                                                                                                                                                                              | Within ± 20% of initial measured value |    |    |    |
| Shelf life                                                                | Tan                                                                                                                                                                                                                                                             | ≤ 150% of initial specified value      |    |    |    |
|                                                                           | Leakage current                                                                                                                                                                                                                                                 | ≤ Initial specified value              |    |    |    |
|                                                                           | After storage for 500 hours at +85°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet following limits.                                                                                                                        |                                        |    |    |    |
|                                                                           | Capacitance change                                                                                                                                                                                                                                              | Within + 20% of initial measured value |    |    |    |
|                                                                           |                                                                                                                                                                                                                                                                 |                                        |    |    |    |

### Case sizes and Dimensions



#### Standard lead style

| øD | 5.0 | 6.3 | 8.0 | 10.0 | 13.0 | 16.0 |
|----|-----|-----|-----|------|------|------|
| p  | 2.0 | 2.5 | 3.5 | 5.0  | 7.5  |      |
| ød | 0.5 |     | 0.6 |      | 0.8  |      |

D' = [D + 0.5] Max.

L' = [L + 1.0] Max. at D ≤ 8.0

L' = [L + 1.5] Max. at D ≥ 10.0

### Dimensions & Maximum permissible ripple current [mA(rms) at 85°C, 120Hz]

øD × L (mm)

| W.V     | 10(1A)   |                | 16(1C)   |                | 25(1E)   |                | 50(1H)   |                |
|---------|----------|----------------|----------|----------------|----------|----------------|----------|----------------|
| Cap(µF) | SIZE     | I <sub>R</sub> | SIZE     | I <sub>R</sub> | SIZE     | I <sub>R</sub> | SIZE     | I <sub>R</sub> |
| 0.47    |          |                |          |                |          |                | 5 x 11   | 10             |
| 1.0     |          |                |          |                |          |                | 5 x 11   | 16             |
| 2.2     |          |                |          |                |          |                | 5 x 11   | 26             |
| 3.3     |          |                |          |                |          |                | 5 x 11   | 33             |
| 4.7     |          |                |          |                | 5 x 11   | 27             | 6.3 x 11 | 42             |
| 10      |          |                |          |                | 5 x 11   | 50             | 8 x      | 70             |
| 22      | 5 x 11   | 62             | 6.3 x 11 | 75             | 6.3 x 11 | 90             | 11.5     | 120            |
| 33      | 6.3 x 11 | 82             | 6.3 x 11 | 100            | 8 x      | 115            | 10 x     | 160            |
| 47      | 6.3 x 11 | 105            | 8 x      | 125            | 11.5     | 150            | 12.5     | 200            |
| 100     | 8 x      | 165            | 11.5     | 200            | 10 x     | 260            | 10 x 16  | 340            |
| 220     | 11.5     | 270            | 10 x     | 340            | 12.5     | 420            | 10 x 20  |                |
| 330     | 10 x 16  | 340            | 12.5     | 430            | 10 x 16  |                | 13 x 20  |                |
| 470     | 10 x 20  | 440            | 10 x 20  | 550            | 13 x 20  |                |          |                |
| 1000    | 13 x 20  | 700            | 13 x 20  | 900            |          |                |          |                |