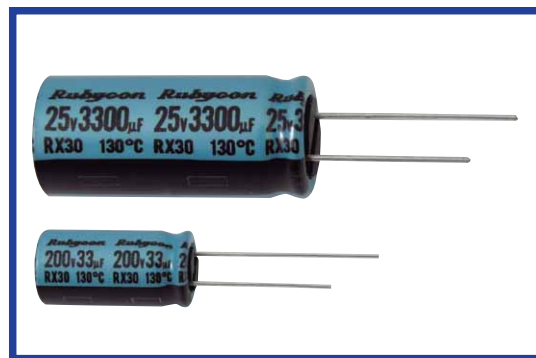


## RX30 SERIES

Load Life : 130°C 1000~4000 hours.

### ◆FEATURES

- For Electronic Ballast of CFL, For Power Supply.
- RoHs compliance



### ◆SPECIFICATIONS

| Items                                                                                                              | Characteristics                                                                                                                                                                                                                                                                                                                                                                                          |                    |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|-----------------------------|--------------------------------------------|------------------------------------------------------|------------------------|--------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------|--------------------|----|----------|-----------|--------|-----|------|----------------|------|------|---------|------|------|------|------|------|------|----------------|---|---|---|---|---|---|---|---|---|---------|
| Category Temperature Range                                                                                         | -40~+130℃                                                                                                                                                                                                                                                                                                                                                                                                |                    |           |                             |                                            | -25~+130℃                                            |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Rated Voltage Range                                                                                                | 10~100V.DC                                                                                                                                                                                                                                                                                                                                                                                               |                    |           |                             |                                            | 200,400V.DC                                          |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Capacitance Tolerance                                                                                              | ±20% (20℃, 120Hz)                                                                                                                                                                                                                                                                                                                                                                                        |                    |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Leakage Current(MAX)                                                                                               | I=0.01CV or 3μA whichever is greater.<br>(After 2 minutes application of rated voltage)                                                                                                                                                                                                                                                                                                                  |                    |           |                             |                                            | CV≤1000                                              |                        | CV>1000                                                |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                          |                    |           |                             |                                            | I=0.1CV+40μA (1 minute)<br>I=0.03CV+15μA (5 minutes) |                        | I=0.04CV+100μA (1 minute)<br>I=0.02CV+25μA (5 minutes) |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    | I=(μA)<br>Leakage Current                                                                                                                                                                                                                                                                                                                                                                                |                    |           | C=(μF)<br>Rated Capacitance |                                            |                                                      | V=(V)<br>Rated Voltage |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| (tanδ)<br>Dissipation Factor(MAX)                                                                                  | <table><tr><td>Rated Voltage</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>200</td><td>400</td></tr><tr><td>tanδ</td><td>0.20</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.15</td><td>0.20</td></tr></table>                                                                                                          |                    |           |                             |                                            |                                                      |                        |                                                        |      | Rated Voltage                                                                                                                                                                                                                                                                                 | 10 | 16        | 25                 | 35 | 50       | 63        | 100    | 200 | 400  | tanδ           | 0.20 | 0.16 | 0.14    | 0.12 | 0.10 | 0.09 | 0.08 | 0.15 | 0.20 | (20℃, 120Hz)   |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    | Rated Voltage                                                                                                                                                                                                                                                                                                                                                                                            | 10                 | 16        | 25                          | 35                                         | 50                                                   | 63                     | 100                                                    | 200  | 400                                                                                                                                                                                                                                                                                           |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| tanδ                                                                                                               | 0.20                                                                                                                                                                                                                                                                                                                                                                                                     | 0.16               | 0.14      | 0.12                        | 0.10                                       | 0.09                                                 | 0.08                   | 0.15                                                   | 0.20 |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF. |                                                                                                                                                                                                                                                                                                                                                                                                          |                    |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Endurance                                                                                                          | After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.                                                                                                                                                                                                                                                                 |                    |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                          | 10~100WV           |           |                             |                                            | 200,400WV                                            |                        |                                                        |      | <table><tr><td rowspan="2">Case Size</td><td colspan="2">(hrs)<br/>Life Time</td></tr><tr><td>10~100WV</td><td>200,400WV</td></tr><tr><td>φD=6.3</td><td>—</td><td>1000</td></tr><tr><td>φD=8, 10</td><td>2000</td><td>2000</td></tr><tr><td>φD≥12.5</td><td>4000</td><td>—</td></tr></table> |    | Case Size | (hrs)<br>Life Time |    | 10~100WV | 200,400WV | φD=6.3 | —   | 1000 | φD=8, 10       | 2000 | 2000 | φD≥12.5 | 4000 | —    |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    | Case Size                                                                                                                                                                                                                                                                                                                                                                                                | (hrs)<br>Life Time |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                          | 10~100WV           | 200,400WV |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    | φD=6.3                                                                                                                                                                                                                                                                                                                                                                                                   | —                  | 1000      |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| φD=8, 10                                                                                                           | 2000                                                                                                                                                                                                                                                                                                                                                                                                     | 2000               |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| φD≥12.5                                                                                                            | 4000                                                                                                                                                                                                                                                                                                                                                                                                     | —                  |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Capacitance Change                                                                                                 | Within ±30% of the initial value.                                                                                                                                                                                                                                                                                                                                                                        |                    |           |                             | Within ±20% of the initial value.          |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Dissipation Factor                                                                                                 | Not more than 300% of the specified value.                                                                                                                                                                                                                                                                                                                                                               |                    |           |                             | Not more than 200% of the specified value. |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Leakage Current                                                                                                    | Not more than the specified value.                                                                                                                                                                                                                                                                                                                                                                       |                    |           |                             |                                            |                                                      |                        |                                                        |      |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Low Temperature Stability Impedance Ratio(MAX)                                                                     | <table><tr><td>Rated Voltage</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>200</td><td>400</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td><td>6</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>—</td><td>—</td></tr></table> |                    |           |                             |                                            |                                                      |                        |                                                        |      | Rated Voltage                                                                                                                                                                                                                                                                                 | 10 | 16        | 25                 | 35 | 50       | 63        | 100    | 200 | 400  | Z(-25℃)/Z(20℃) | 3    | 2    | 2       | 2    | 2    | 2    | 2    | 3    | 6    | Z(-40℃)/Z(20℃) | 6 | 4 | 3 | 3 | 3 | 3 | 3 | — | — | (120Hz) |
|                                                                                                                    | Rated Voltage                                                                                                                                                                                                                                                                                                                                                                                            | 10                 | 16        | 25                          | 35                                         | 50                                                   | 63                     | 100                                                    | 200  | 400                                                                                                                                                                                                                                                                                           |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
|                                                                                                                    | Z(-25℃)/Z(20℃)                                                                                                                                                                                                                                                                                                                                                                                           | 3                  | 2         | 2                           | 2                                          | 2                                                    | 2                      | 2                                                      | 3    | 6                                                                                                                                                                                                                                                                                             |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |
| Z(-40℃)/Z(20℃)                                                                                                     | 6                                                                                                                                                                                                                                                                                                                                                                                                        | 4                  | 3         | 3                           | 3                                          | 3                                                    | 3                      | —                                                      | —    |                                                                                                                                                                                                                                                                                               |    |           |                    |    |          |           |        |     |      |                |      |      |         |      |      |      |      |      |      |                |   |   |   |   |   |   |   |   |   |         |

### ◆MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient  
10WV~100WV

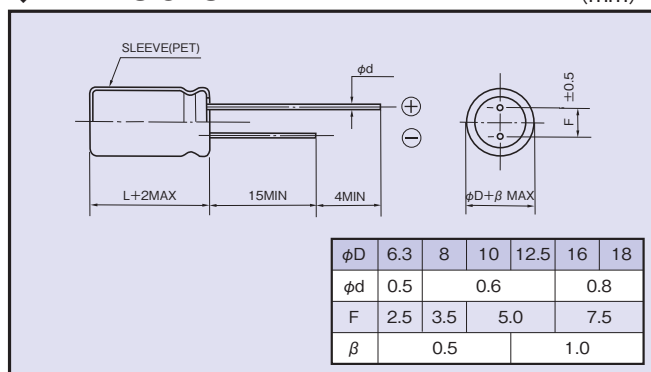
| (Hz)        | Frequency   | 60(50) | 120  | 1k   | 10k  | 100k≤ |
|-------------|-------------|--------|------|------|------|-------|
| Coefficient | 1~4.7µF     | 0.35   | 0.42 | 0.60 | 0.80 | 1.00  |
|             | 10~33µF     | 0.45   | 0.55 | 0.75 | 0.90 | 1.00  |
|             | 47~330µF    | 0.60   | 0.70 | 0.85 | 0.95 | 1.00  |
|             | 470~1500µF  | 0.65   | 0.75 | 0.90 | 0.98 | 1.00  |
|             | 2200~4700µF | 0.75   | 0.80 | 0.95 | 1.00 | 1.00  |

200WV, 400WV

| (Hz)        | Frequency | 120  | 1k   | 10k  | 100k≤ |
|-------------|-----------|------|------|------|-------|
| Coefficient | 1~5.6µF   | 0.20 | 0.40 | 0.80 | 1.00  |
|             | 6.8~15µF  | 0.30 | 0.60 | 0.90 | 1.00  |
|             | 22~33µF   | 0.50 | 0.80 | 0.90 | 1.00  |

### ◆DIMENSIONS

(mm)



### ◆PART NUMBER

RX30     M     D×L  
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Lead Forming Case Size

### ◆OPTION

|            | Code  |
|------------|-------|
| PET Sleeve | Blank |

**◆STANDARD SIZE**

| Rated Voltage<br>(V·DC) | Rated capacitance (μF) | Size<br>φD×L(mm) | Rated ripple current<br>(mA r.m.s./130°C, 100kHz) | (Ω MAX)<br>Impedance |
|-------------------------|------------------------|------------------|---------------------------------------------------|----------------------|
|                         |                        |                  |                                                   | 20°C, 100kHz         |
| 10<br>(1A)              | 330                    | 8×11.5           | 360                                               | 0.22                 |
|                         | 470                    | 10×12.5          | 620                                               | 0.15                 |
|                         | 1000                   | 10×20            | 960                                               | 0.073                |
|                         | 2200                   | 12.5×25          | 1430                                              | 0.040                |
|                         | 3300                   | 16×25            | 1900                                              | 0.038                |
|                         | 4700                   | 16×31.5          | 2300                                              | 0.034                |
| 16<br>(1C)              | 330                    | 8×11.5           | 360                                               | 0.22                 |
|                         | 470                    | 10×12.5          | 620                                               | 0.15                 |
|                         | 1000                   | 10×20            | 960                                               | 0.073                |
|                         | 2200                   | 12.5×25          | 1430                                              | 0.040                |
|                         | 3300                   | 16×31.5          | 2300                                              | 0.034                |
|                         | 4700                   | 16×35.5          | 2550                                              | 0.031                |
| 25<br>(1E)              | 220                    | 8×11.5           | 360                                               | 0.22                 |
|                         | 330                    | 10×12.5          | 620                                               | 0.15                 |
|                         | 470                    | 10×16            | 800                                               | 0.10                 |
|                         | 1000                   | 12.5×20          | 1100                                              | 0.055                |
|                         | 2200                   | 16×31.5          | 2300                                              | 0.034                |
|                         | 3300                   | 16×35.5          | 2550                                              | 0.031                |
| 35<br>(1V)              | 100                    | 8×11.5           | 360                                               | 0.22                 |
|                         | 220                    | 10×12.5          | 620                                               | 0.15                 |
|                         | 330                    | 10×16            | 800                                               | 0.10                 |
|                         | 470                    | 10×20            | 960                                               | 0.073                |
|                         | 1000                   | 12.5×25          | 1430                                              | 0.040                |
|                         | 2200                   | 16×35.5          | 2550                                              | 0.031                |
|                         | 3300                   | 18×35.5          | 2800                                              | 0.028                |
|                         |                        |                  |                                                   |                      |
| 50<br>(1H)              | 1                      | 8×11.5           | 35                                                | 2.5                  |
|                         | 2.2                    | 8×11.5           | 50                                                | 1.8                  |
|                         | 3.3                    | 8×11.5           | 70                                                | 1.3                  |
|                         | 4.7                    | 8×11.5           | 100                                               | 0.85                 |
|                         | 10                     | 8×11.5           | 200                                               | 0.60                 |
|                         | 22                     | 8×11.5           | 260                                               | 0.35                 |
|                         | 33                     | 8×11.5           | 300                                               | 0.28                 |
|                         | 47                     | 8×11.5           | 300                                               | 0.28                 |
|                         | 100                    | 10×12.5          | 520                                               | 0.18                 |
|                         | 220                    | 10×20            | 890                                               | 0.082                |
|                         | 330                    | 12.5×20          | 1000                                              | 0.065                |
|                         | 470                    | 12.5×25          | 1200                                              | 0.051                |
|                         | 1000                   | 16×31.5          | 2180                                              | 0.037                |
|                         | 2200                   | 18×40            | 2800                                              | 0.029                |
| 63<br>(1J)              | 33                     | 8×11.5           | 250                                               | 0.40                 |
|                         | 47                     | 10×12.5          | 400                                               | 0.27                 |
|                         | 100                    | 10×16            | 450                                               | 0.20                 |
|                         | 220                    | 12.5×20          | 820                                               | 0.10                 |
|                         | 330                    | 12.5×25          | 1000                                              | 0.072                |
|                         | 470                    | 16×25            | 1500                                              | 0.069                |
|                         | 1000                   | 16×31.5          | 1850                                              | 0.056                |
|                         | 1500                   | 18×40            | 2350                                              | 0.043                |
| 100<br>(2A)             | 4.7                    | 8×11.5           | 100                                               | 1.3                  |
|                         | 10                     | 8×11.5           | 200                                               | 1.0                  |
|                         | 22                     | 8×11.5           | 220                                               | 0.67                 |
|                         | 33                     | 10×12.5          | 260                                               | 0.45                 |
|                         | 47                     | 10×16            | 330                                               | 0.33                 |
|                         | 100                    | 12.5×20          | 670                                               | 0.17                 |
|                         | 220                    | 16×25            | 1100                                              | 0.13                 |
|                         | 330                    | 16×31.5          | 1300                                              | 0.10                 |
|                         | 470                    | 18×31.5          | 1600                                              | 0.092                |

| Rated Voltage<br>(V·DC) | Rated capacitance (μF) | Size<br>φD×L(mm) | Rated ripple current<br>(mA r.m.s./130°C, 100kHz) |
|-------------------------|------------------------|------------------|---------------------------------------------------|
| 200<br>(2D)             | 4.7                    | 6.3×11           | 100                                               |
|                         |                        | 8×11.5           | 120                                               |
|                         | 5.6                    | 8×11.5           | 130                                               |
|                         |                        | 8×16             | 180                                               |
|                         | 6.8                    | 8×11.5           | 130                                               |
|                         |                        | 8×16             | 180                                               |
|                         | 10                     | 8×16             | 200                                               |
|                         |                        | 8×20             | 240                                               |
| 400<br>(2G)             | 1                      | 8×16             | 200                                               |
|                         |                        | 8×20             | 240                                               |
|                         | 15                     | 8×16             | 200                                               |
|                         |                        | 8×20             | 240                                               |
|                         | 22                     | 8×20             | 240                                               |
|                         |                        | 10×16            | 240                                               |
|                         | 33                     | 10×16            | 240                                               |
|                         |                        | 10×20            | 320                                               |
|                         | 1                      | 6.3×11           | 60                                                |
|                         |                        | 8×11.5           | 65                                                |
|                         | 1.5                    | 8×11.5           | 75                                                |
|                         |                        | 8×16             | 80                                                |
|                         | 1.8                    | 8×11.5           | 75                                                |
|                         |                        | 8×16             | 85                                                |
|                         | 2.2                    | 8×11.5           | 75                                                |
|                         |                        | 8×16             | 90                                                |
|                         |                        | 8×20             | 110                                               |
|                         |                        | 8×16             | 95                                                |
|                         | 2.7                    | 8×20             | 115                                               |
|                         |                        | 8×20             | 115                                               |
|                         | 3.3                    | 8×16             | 100                                               |
|                         |                        | 8×20             | 120                                               |
|                         | 4.7                    | 8×20             | 120                                               |
|                         |                        | 10×16            | 125                                               |
|                         | 5.6                    | 10×16            | 130                                               |
|                         |                        | 10×20            | 145                                               |
|                         | 6.8                    | 10×20            | 150                                               |