



## RXK Series

### Features

- 105°C, 2,000 ~ 5,000 hours assured
- Low ESR, suitable for switching power supplies
- Smaller size with large permissible ripple current
- RoHS Compliance

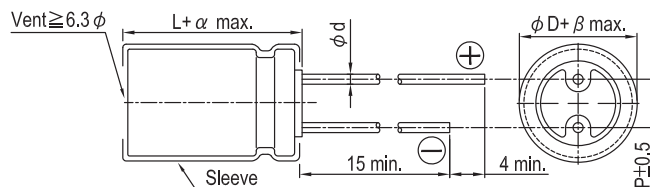


Sleeve & Marking Color: Black & Golden

### Specifications

| Items                                      | Performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|----|----------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------|------|-----------------------------------|-----------------|------------------------|------------|-----------------|-------------------|------|------|------|----------|------|------|------|------|------|------|-------------|------|------|------|------|------|------|----------------|------|------|------|------|------|------|
| Category Temperature Range                 | -55°C ~ +105°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Capacitance Tolerance                      | ±20% (at 120Hz, 20°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Leakage Current (at 20°C)                  | I = 0.01CV or 3 (μA) whichever is greater (after 2 minutes)<br>Where, C = rated capacitance in μF, V = rated DC working voltage in V                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Tanδ (at 120Hz, 20°C)                      | <table><tr><td>Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td></tr><tr><td>Tanδ (max)</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td></tr></table> <p>When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase.</p>                                                                                                                                                                                                                                   |      |      |      |      |      |      |    | Rated Voltage        | 6.3                                                                                                                   | 10                 | 16                           | 25   | 35                                | 50              | 63                     | Tanδ (max) | 0.22            | 0.19              | 0.16 | 0.14 | 0.12 | 0.10     | 0.09 |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Rated Voltage                              | 6.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10   | 16   | 25   | 35   | 50   | 63   |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Tanδ (max)                                 | 0.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Low Temperature Characteristics (at 120Hz) | <p>Impedance ratio shall not exceed the values given in the table below.</p> <table><tr><td colspan="2">Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td></tr><tr><td>Impedance Ratio</td><td>Z(-55°C)/Z(+20°C)</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table>                                                                                                                                                                                                                         |      |      |      |      |      |      |    | Rated Voltage        |                                                                                                                       | 6.3                | 10                           | 16   | 25                                | 35              | 50                     | 63         | Impedance Ratio | Z(-55°C)/Z(+20°C) | 4    | 4    | 3    | 3        | 3    | 3    | 3    |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Rated Voltage                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.3  | 10   | 16   | 25   | 35   | 50   | 63 |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Impedance Ratio                            | Z(-55°C)/Z(+20°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4    | 4    | 3    | 3    | 3    | 3    | 3  |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Endurance                                  | <table><tr><td>Test Time</td><td>2,000 Hrs for ϕ D ≤ 6.3 mm;<br/>3,000 Hrs for ϕ D = 8 mm;<br/>4,000 Hrs for ϕ D = 10 mm;<br/>5,000 Hrs for ϕ D ≥ 12.5 mm</td></tr><tr><td>Capacitance Change</td><td>Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td>Less than 200% of specified value</td></tr><tr><td>Leakage Current</td><td>Within specified value</td></tr></table> <p>* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2,000 ~ 5,000 hours at 105°C.</p> |      |      |      |      |      |      |    | Test Time            | 2,000 Hrs for ϕ D ≤ 6.3 mm;<br>3,000 Hrs for ϕ D = 8 mm;<br>4,000 Hrs for ϕ D = 10 mm;<br>5,000 Hrs for ϕ D ≥ 12.5 mm | Capacitance Change | Within ±20% of initial value | Tanδ | Less than 200% of specified value | Leakage Current | Within specified value |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Test Time                                  | 2,000 Hrs for ϕ D ≤ 6.3 mm;<br>3,000 Hrs for ϕ D = 8 mm;<br>4,000 Hrs for ϕ D = 10 mm;<br>5,000 Hrs for ϕ D ≥ 12.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Capacitance Change                         | Within ±20% of initial value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Tanδ                                       | Less than 200% of specified value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Leakage Current                            | Within specified value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Shelf Life Test                            | <table><tr><td>Test Time</td><td>1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td>Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td>Less than 200% of specified value</td></tr><tr><td>Leakage Current</td><td>Within specified value</td></tr></table> <p>* The above specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105 °C without voltage applied.</p>                                                                                                                                     |      |      |      |      |      |      |    | Test Time            | 1,000 Hrs                                                                                                             | Capacitance Change | Within ±20% of initial value | Tanδ | Less than 200% of specified value | Leakage Current | Within specified value |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Test Time                                  | 1,000 Hrs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Capacitance Change                         | Within ±20% of initial value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Tanδ                                       | Less than 200% of specified value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Leakage Current                            | Within specified value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |      |      |      |      |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Ripple Current and Frequency Multipliers   | <table><tr><th>Cap.(μF) \ Freq.(Hz)</th><th>60 (50)</th><th>120</th><th>500</th><th>1k</th><th>10k</th><th>100k</th></tr><tr><td>Under 33</td><td>0.40</td><td>0.55</td><td>0.65</td><td>0.80</td><td>0.90</td><td>1.00</td></tr><tr><td>39 ~ 330</td><td>0.60</td><td>0.70</td><td>0.80</td><td>0.90</td><td>0.95</td><td>1.00</td></tr><tr><td>390 ~ 1,000</td><td>0.65</td><td>0.80</td><td>0.85</td><td>0.98</td><td>1.00</td><td>1.00</td></tr><tr><td>1,200 up above</td><td>0.80</td><td>0.90</td><td>0.95</td><td>0.98</td><td>1.00</td><td>1.00</td></tr></table>     |      |      |      |      |      |      |    | Cap.(μF) \ Freq.(Hz) | 60 (50)                                                                                                               | 120                | 500                          | 1k   | 10k                               | 100k            | Under 33               | 0.40       | 0.55            | 0.65              | 0.80 | 0.90 | 1.00 | 39 ~ 330 | 0.60 | 0.70 | 0.80 | 0.90 | 0.95 | 1.00 | 390 ~ 1,000 | 0.65 | 0.80 | 0.85 | 0.98 | 1.00 | 1.00 | 1,200 up above | 0.80 | 0.90 | 0.95 | 0.98 | 1.00 | 1.00 |
| Cap.(μF) \ Freq.(Hz)                       | 60 (50)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 120  | 500  | 1k   | 10k  | 100k |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Under 33                                   | 0.40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.55 | 0.65 | 0.80 | 0.90 | 1.00 |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| 39 ~ 330                                   | 0.60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.70 | 0.80 | 0.90 | 0.95 | 1.00 |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| 390 ~ 1,000                                | 0.65                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.80 | 0.85 | 0.98 | 1.00 | 1.00 |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |
| 1,200 up above                             | 0.80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.90 | 0.95 | 0.98 | 1.00 | 1.00 |      |    |                      |                                                                                                                       |                    |                              |      |                                   |                 |                        |            |                 |                   |      |      |      |          |      |      |      |      |      |      |             |      |      |      |      |      |      |                |      |      |      |      |      |      |

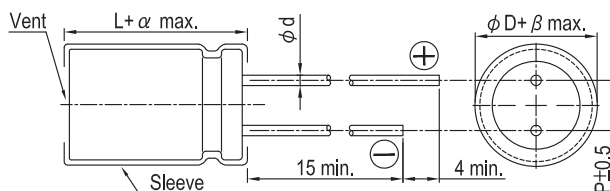
### Diagram of Dimensions



### Lead Spacing and Diameter Unit: mm

| Load Spacing and Diameter |                             |     |     |     | Unit: mm |     |     |
|---------------------------|-----------------------------|-----|-----|-----|----------|-----|-----|
| $\phi D$                  | 5                           | 6.3 | 8   | 10  | 12.5     | 16  | 18  |
| P                         | 2.0                         | 2.5 | 3.5 | 5.0 | 5.0      | 7.5 | 7.5 |
| $\phi d$                  | 0.5                         |     | 0.6 |     |          | 0.8 |     |
| $\alpha$                  | L<20: 1.5, L $\geq$ 20: 2.0 |     |     |     |          |     |     |
| $\beta$                   | 0.5                         |     |     |     |          |     |     |

The case size of 16×20 is suitable for below diagram:





Dimension:  $\phi D \times L(\text{mm})$

Ripple Current: mA/rms at 100k Hz, 105°C

## Dimension and Permissible Ripple Current

| Cap. (μF) | Contents | 6.3V (0J)         |                                |       |                                   |         | 10V (1A)          |                                |       |                                   |         | 16V (1C)          |                                |       |                                   |         |
|-----------|----------|-------------------|--------------------------------|-------|-----------------------------------|---------|-------------------|--------------------------------|-------|-----------------------------------|---------|-------------------|--------------------------------|-------|-----------------------------------|---------|
|           |          | $\phi D \times L$ | Impedance<br>(Ω, max./100k Hz) |       | Ripple Current<br>(mA/rms, 105°C) |         | $\phi D \times L$ | Impedance<br>(Ω, max./100k Hz) |       | Ripple Current<br>(mA/rms, 105°C) |         | $\phi D \times L$ | Impedance<br>(Ω, max./100k Hz) |       | Ripple Current<br>(mA/rms, 105°C) |         |
|           |          |                   | 20°C                           | -10°C | 120 Hz                            | 100k Hz |                   | 20°C                           | -10°C | 120 Hz                            | 100k Hz |                   | 20°C                           | -10°C | 120 Hz                            | 100k Hz |
| 56        |          |                   |                                |       |                                   |         |                   |                                |       |                                   |         | 5×11              | 0.72                           | 1.8   | 116                               | 165     |
| 68        |          |                   |                                |       |                                   |         |                   |                                |       |                                   |         | 5×11              | 0.72                           | 1.8   | 126                               | 180     |
| 82        |          |                   |                                |       |                                   |         | 5×11              | 0.72                           | 1.8   | 116                               | 165     |                   |                                |       |                                   |         |
| 100       |          |                   |                                |       |                                   |         | 5×11              | 0.72                           | 1.8   | 126                               | 180     |                   |                                |       |                                   |         |
| 120       |          | 5×11              | 0.72                           | 1.8   | 116                               | 165     |                   |                                |       |                                   |         | 6.3×11            | 0.38                           | 0.95  | 179                               | 255     |
| 180       |          |                   |                                |       |                                   |         | 6.3×11            | 0.38                           | 0.95  | 179                               | 255     | 6.3×15            | 0.27                           | 0.68  | 231                               | 330     |
| 220       |          | 6.3×11            | 0.38                           | 0.95  | 179                               | 255     | 6.3×11            | 0.38                           | 0.95  | 196                               | 280     |                   |                                |       |                                   |         |
| 270       |          | 6.3×11            | 0.38                           | 0.95  | 196                               | 280     | 6.3×15            | 0.27                           | 0.68  | 231                               | 330     | 8×11.5            | 0.20                           | 0.50  | 291                               | 415     |
| 330       |          | 6.3×15            | 0.27                           | 0.68  | 231                               | 330     | 8×11.5            | 0.20                           | 0.50  | 291                               | 415     | 10×12.5           | 0.12                           | 0.30  | 438                               | 625     |
| 390       |          | 8×11.5            | 0.20                           | 0.50  | 332                               | 415     | 8×11.5            | 0.20                           | 0.50  | 360                               | 450     | 8×11.5            | 0.20                           | 0.50  | 315                               | 450     |
| 470       |          | 8×11.5            | 0.20                           | 0.50  | 360                               | 450     | 8×15              | 0.16                           | 0.40  | 396                               | 495     | 8×15              | 0.16                           | 0.40  | 347                               | 495     |
| 560       |          | 8×15              | 0.16                           | 0.40  | 396                               | 495     | 10×12.5           | 0.12                           | 0.30  | 540                               | 675     | 10×12.5           | 0.12                           | 0.30  | 540                               | 675     |
| 680       |          | 10×12.5           | 0.12                           | 0.30  | 540                               | 675     | 8×15              | 0.16                           | 0.40  | 472                               | 590     | 8×15              | 0.16                           | 0.40  | 512                               | 590     |
| 820       |          | 10×16             | 0.084                          | 0.21  | 660                               | 825     | 8×15              | 0.16                           | 0.40  | 472                               | 590     | 8×20              | 0.11                           | 0.28  | 512                               | 640     |
| 1,000     |          | 8×15              | 0.16                           | 0.40  | 472                               | 590     | 8×20              | 0.11                           | 0.28  | 560                               | 700     | 10×16             | 0.084                          | 0.21  | 660                               | 825     |
| 1,200     |          | 8×20              | 0.11                           | 0.28  | 560                               | 700     | 10×16             | 0.084                          | 0.21  | 728                               | 910     | 10×16             | 0.084                          | 0.21  | 728                               | 910     |
| 1,500     |          | 10×20             | 0.062                          | 0.16  | 936                               | 1,040   | 10×20             | 0.062                          | 0.16  | 832                               | 1,040   | 10×20             | 0.062                          | 0.16  | 904                               | 1,130   |
| 1,800     |          | 10×20             | 0.062                          | 0.16  | 1,017                             | 1,130   | 10×25             | 0.052                          | 0.13  | 1,251                             | 1,390   | 10×25             | 0.052                          | 0.13  | 1,008                             | 1,260   |
| 2,200     |          | 10×25             | 0.052                          | 0.13  | 1,251                             | 1,390   | 10×30             | 0.044                          | 0.11  | 1,413                             | 1,570   | 10×30             | 0.044                          | 0.11  | 1,112                             | 1,390   |
| 2,700     |          | 12.5×20           | 0.046                          | 0.12  | 1,206                             | 1,340   | 12.5×20           | 0.046                          | 0.12  | 1,305                             | 1,450   | 12.5×20           | 0.046                          | 0.12  | 1,296                             | 1,440   |
| 3,300     |          | 12.5×25           | 0.034                          | 0.085 | 1,521                             | 1,690   | 12.5×25           | 0.034                          | 0.085 | 1,521                             | 1,690   | 12.5×25           | 0.034                          | 0.085 | 1,206                             | 1,340   |
| 3,900     |          | 16×20             | 0.028                          | 0.070 | 2,196                             | 2,440   | 16×20             | 0.028                          | 0.070 | 2,196                             | 2,440   | 16×20             | 0.028                          | 0.070 | 1,413                             | 1,570   |
| 4,700     |          | 16×25             | 0.022                          | 0.055 | 2,295                             | 2,550   | 16×25             | 0.022                          | 0.055 | 2,295                             | 2,550   | 16×25             | 0.022                          | 0.055 | 1,305                             | 1,450   |
| 5,600     |          | 18×35.5           | 0.021                          | 0.053 | 2,448                             | 2,720   | 18×35.5           | 0.021                          | 0.053 | 2,448                             | 2,720   | 18×35.5           | 0.021                          | 0.053 | 1,521                             | 1,690   |
| 6,800     |          | 20×25             | 0.018                          | 0.045 | 2,610                             | 2,900   | 20×25             | 0.018                          | 0.045 | 2,610                             | 2,900   | 20×25             | 0.018                          | 0.045 | 1,521                             | 1,690   |
| 8,200     |          | 25×20             | 0.015                          | 0.037 | 3,150                             | 3,560   | 25×20             | 0.015                          | 0.037 | 3,150                             | 3,560   | 25×20             | 0.015                          | 0.037 | 1,629                             | 1,810   |
| 10,000    |          | 35×16             | 0.012                          | 0.030 | 4,380                             | 5,000   | 35×16             | 0.012                          | 0.030 | 4,380                             | 5,000   | 35×16             | 0.012                          | 0.030 | 1,755                             | 1,950   |



Dimension:  $\phi D \times L(\text{mm})$

Ripple Current: mA/rms at 100k Hz, 105°C

## Dimension and Permissible Ripple Current

| Cap. (μF) | Contents | 25V (1E)          |                                         |       |                                   |         | 35V (1V)          |                                         |       |                                   |         | 50V (1H)          |                                         |       |                                   |         |
|-----------|----------|-------------------|-----------------------------------------|-------|-----------------------------------|---------|-------------------|-----------------------------------------|-------|-----------------------------------|---------|-------------------|-----------------------------------------|-------|-----------------------------------|---------|
|           |          | $\phi D \times L$ | Impedance<br>( $\Omega$ , max./100k Hz) |       | Ripple Current<br>(mA/rms, 105°C) |         | $\phi D \times L$ | Impedance<br>( $\Omega$ , max./100k Hz) |       | Ripple Current<br>(mA/rms, 105°C) |         | $\phi D \times L$ | Impedance<br>( $\Omega$ , max./100k Hz) |       | Ripple Current<br>(mA/rms, 105°C) |         |
|           |          |                   | 20°C                                    | -10°C | 120 Hz                            | 100k Hz |                   | 20°C                                    | -10°C | 120 Hz                            | 100k Hz |                   | 20°C                                    | -10°C | 120 Hz                            | 100k Hz |
| 18        |          |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         | 5×11              | 1.1                                     | 3.3   | 72                                | 130     |
| 22        |          |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         | 5×11              | 1.1                                     | 3.3   | 83                                | 150     |
| 27        |          |                   |                                         |       |                                   |         | 5×11              | 0.72                                    | 1.8   | 91                                | 165     |                   |                                         |       |                                   |         |
| 33        |          |                   |                                         |       |                                   |         | 5×11              | 0.72                                    | 1.8   | 99                                | 180     |                   |                                         |       |                                   |         |
| 39        |          | 5×11              | 0.72                                    | 1.8   | 116                               | 165     |                   |                                         |       |                                   |         | 6.3×11            | 0.56                                    | 1.6   | 154                               | 220     |
| 47        |          | 5×11              | 0.72                                    | 1.8   | 126                               | 180     |                   |                                         |       |                                   |         | 6.3×11            | 0.56                                    | 1.6   | 161                               | 230     |
| 56        |          |                   |                                         |       |                                   |         | 6.3×11            | 0.38                                    | 0.95  | 179                               | 255     | 6.3×15            | 0.41                                    | 1.2   | 217                               | 310     |
| 68        |          |                   |                                         |       |                                   |         | 6.3×11            | 0.38                                    | 0.95  | 196                               | 280     | 8×11.5            | 0.29                                    | 0.84  | 238                               | 340     |
| 82        |          | 6.3×11            | 0.38                                    | 0.95  | 179                               | 255     | 6.3×15            | 0.27                                    | 0.68  | 231                               | 330     | 8×11.5            | 0.29                                    | 0.84  | 249                               | 355     |
|           |          |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         | 8×15              | 0.25                                    | 0.75  | 329                               | 470     |
|           |          |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         | 10×12.5           | 0.16                                    | 0.40  | 336                               | 480     |
| 100       |          | 6.3×11            | 0.38                                    | 0.95  | 196                               | 280     |                   |                                         |       |                                   |         | 10×12.5           | 0.16                                    | 0.40  | 371                               | 530     |
| 120       |          | 6.3×15            | 0.27                                    | 0.68  | 231                               | 330     | 8×11.5            | 0.20                                    | 0.50  | 291                               | 415     | 8×15              | 0.25                                    | 0.75  | 392                               | 560     |
|           |          |                   |                                         |       |                                   |         | 10×12.5           | 0.12                                    | 0.30  | 438                               | 625     | 8×20              | 0.18                                    | 0.52  | 427                               | 610     |
|           |          |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         | 10×16             | 0.12                                    | 0.30  | 529                               | 755     |
| 150       |          | 8×11.5            | 0.20                                    | 0.50  | 291                               | 415     | 8×11.5            | 0.20                                    | 0.50  | 315                               | 450     | 10×16             | 0.12                                    | 0.30  | 588                               | 840     |
|           |          |                   |                                         |       |                                   |         | 10×12.5           | 0.12                                    | 0.30  | 473                               | 675     |                   |                                         |       |                                   |         |
| 180       |          | 8×11.5            | 0.20                                    | 0.50  | 315                               | 450     | 8×15              | 0.16                                    | 0.40  | 347                               | 495     | 8×20              | 0.18                                    | 0.52  | 525                               | 750     |
|           |          | 10×12.5           | 0.12                                    | 0.30  | 438                               | 625     |                   |                                         |       |                                   |         | 10×20             | 0.088                                   | 0.22  | 662                               | 945     |
| 220       |          | 8×15              | 0.16                                    | 0.40  | 347                               | 495     | 8×15              | 0.16                                    | 0.40  | 413                               | 590     | 10×20             | 0.088                                   | 0.22  | 728                               | 1,040   |
|           |          | 10×12.5           | 0.12                                    | 0.30  | 473                               | 675     | 8×20              | 0.11                                    | 0.28  | 448                               | 640     | 10×25             | 0.068                                   | 0.17  | 805                               | 1,150   |
|           |          |                   |                                         |       |                                   |         | 10×16             | 0.084                                   | 0.21  | 578                               | 825     |                   |                                         |       |                                   |         |
| 270       |          |                   |                                         |       |                                   |         | 8×20              | 0.11                                    | 0.28  | 490                               | 700     | 10×25             | 0.068                                   | 0.17  | 896                               | 1,280   |
|           |          |                   |                                         |       |                                   |         | 10×16             | 0.084                                   | 0.21  | 637                               | 910     |                   |                                         |       |                                   |         |
| 330       |          | 8×15              | 0.16                                    | 0.40  | 413                               | 590     | 10×20             | 0.062                                   | 0.16  | 728                               | 1,040   | 10×30             | 0.059                                   | 0.15  | 882                               | 1,260   |
|           |          | 8×20              | 0.11                                    | 0.28  | 448                               | 640     |                   |                                         |       |                                   |         | 12.5×20           | 0.059                                   | 0.15  | 833                               | 1,190   |
|           |          | 10×16             | 0.084                                   | 0.21  | 578                               | 825     |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |
| 390       |          | 8×20              | 0.11                                    | 0.28  | 560                               | 700     | 10×20             | 0.062                                   | 0.16  | 904                               | 1,130   | 12.5×20           | 0.059                                   | 0.15  | 952                               | 1,190   |
|           |          | 10×16             | 0.084                                   | 0.21  | 728                               | 910     | 10×25             | 0.052                                   | 0.13  | 1,008                             | 1,260   |                   |                                         |       |                                   |         |
| 470       |          | 10×20             | 0.062                                   | 0.16  | 832                               | 1,040   | 10×25             | 0.052                                   | 0.13  | 1,112                             | 1,390   | 10×30             | 0.059                                   | 0.15  | 1,176                             | 1,470   |
|           |          |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         | 12.5×25           | 0.045                                   | 0.11  | 1,192                             | 1,490   |
| 560       |          | 10×20             | 0.062                                   | 0.16  | 904                               | 1,130   | 10×30             | 0.044                                   | 0.11  | 1,152                             | 1,440   | 12.5×25           | 0.045                                   | 0.11  | 1,304                             | 1,630   |
|           |          | 10×25             | 0.052                                   | 0.13  | 1,008                             | 1,260   | 12.5×20           | 0.046                                   | 0.12  | 1,072                             | 1,340   | 12.5×30           | 0.039                                   | 0.098 | 1,376                             | 1,720   |
| 680       |          | 10×25             | 0.052                                   | 0.13  | 1,112                             | 1,390   | 10×30             | 0.044                                   | 0.11  | 1,256                             | 1,570   | 12.5×30           | 0.039                                   | 0.098 | 1,520                             | 1,800   |
|           |          |                   |                                         |       |                                   |         | 12.5×20           | 0.046                                   | 0.12  | 1,160                             | 1,450   | 12.5×35           | 0.033                                   | 0.083 | 1,512                             | 1,900   |
|           |          |                   |                                         |       |                                   |         | 12.5×25           | 0.034                                   | 0.085 | 1,352                             | 1,690   | 16×20             | 0.048                                   | 0.120 | 1,248                             | 1,560   |
| 820       |          | 10×30             | 0.044                                   | 0.11  | 1,152                             | 1,440   | 12.5×25           | 0.034                                   | 0.085 | 1,448                             | 1,810   | 12.5×35           | 0.033                                   | 0.083 | 1,624                             | 2,030   |
|           |          | 12.5×20           | 0.046                                   | 0.12  | 1,072                             | 1,340   |                   |                                         |       |                                   |         | 12.5×40           | 0.029                                   | 0.073 | 1,656                             | 2,070   |
|           |          |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         | 16×25             | 0.033                                   | 0.083 | 1,504                             | 1,880   |
| 1,000     |          | 10×30             | 0.044                                   | 0.11  | 1,256                             | 1,570   | 12.5×30           | 0.030                                   | 0.075 | 1,560                             | 1,950   | 12.5×40           | 0.029                                   | 0.073 | 1,800                             | 2,250   |
|           |          | 12.5×20           | 0.046                                   | 0.12  | 1,160                             | 1,450   | 16×20             | 0.035                                   | 0.087 | 1,376                             | 1,720   | 16×25             | 0.033                                   | 0.083 | 1,664                             | 2,080   |
|           |          | 12.5×25           | 0.034                                   | 0.085 | 1,352                             | 1,690   |                   |                                         |       |                                   |         | 16×31.5           | 0.029                                   | 0.073 | 1,720                             | 2,150   |
| 1,200     |          | 12.5×25           | 0.034                                   | 0.085 | 1,629                             | 1,810   | 12.5×30           | 0.030                                   | 0.075 | 1,917                             | 2,130   | 16×31.5           | 0.029                                   | 0.073 | 2,088                             | 2,320   |
|           |          |                   |                                         |       |                                   |         | 12.5×35           | 0.027                                   | 0.068 | 1,980                             | 2,200   | 16×35.5           | 0.025                                   | 0.063 | 2,115                             | 2,350   |
|           |          |                   |                                         |       |                                   |         | 16×25             | 0.028                                   | 0.070 | 1,863                             | 2,070   |                   |                                         |       |                                   |         |
| 1,500     |          | 12.5×30           | 0.030                                   | 0.075 | 1,755                             | 1,950   | 12.5×35           | 0.027                                   | 0.068 | 2,151                             | 2,390   | 16×35.5           | 0.025                                   | 0.063 | 2,160                             | 2,400   |
|           |          | 16×20             | 0.035                                   | 0.087 | 1,539                             | 1,710   | 12.5×40           | 0.024                                   | 0.060 | 2,196                             | 2,440   | 16×40             | 0.021                                   | 0.063 | 2,336                             | 2,595   |
|           |          |                   |                                         |       |                                   |         | 16×25             | 0.028                                   | 0.070 | 2,025                             | 2,250   |                   |                                         |       |                                   |         |
| 1,800     |          | 12.5×30           | 0.030                                   | 0.075 | 1,917                             | 2,130   | 12.5×40           | 0.024                                   | 0.060 | 2,358                             | 2,620   | 16×40             | 0.021                                   | 0.063 | 2,466                             | 2,740   |
|           |          | 12.5×35           | 0.027                                   | 0.068 | 1,980                             | 2,200   | 16×31.5           | 0.025                                   | 0.063 | 2,115                             | 2,350   | 18×35.5           | 0.023                                   | 0.058 | 2,286                             | 2,540   |
|           |          | 16×25             | 0.028                                   | 0.070 | 1,863                             | 2,070   |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |
| 2,200     |          | 12.5×35           | 0.027                                   | 0.068 | 2,151                             | 2,390   | 16×31.5           | 0.025                                   | 0.063 | 2,295                             | 2,550   | 18×35.5           | 0.023                                   | 0.058 | 2,349                             | 2,610   |
|           |          | 12.5×40           | 0.024                                   | 0.060 | 2,196                             | 2,440   | 16×35.5           | 0.022                                   | 0.055 | 2,295                             | 2,550   | 18×40             | 0.020                                   | 0.050 | 2,385                             | 2,650   |
|           |          | 16×25             | 0.028                                   | 0.070 | 2,025                             | 2,250   |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |
| 2,700     |          | 16×31.5           | 0.025                                   | 0.063 | 2,115                             | 2,350   | 16×35.5           | 0.022                                   | 0.055 | 2,394                             | 2,660   |                   |                                         |       |                                   |         |
|           |          |                   |                                         |       |                                   |         | 16×40             | 0.018                                   | 0.045 | 2,610                             | 2,900   |                   |                                         |       |                                   |         |
|           |          |                   |                                         |       |                                   |         | 18×35.5           | 0.021                                   | 0.053 | 2,448                             | 2,720   |                   |                                         |       |                                   |         |
| 3,300     |          | 16×31.5           | 0.025                                   | 0.063 | 2,295                             | 2,550   | 18×35.5           | 0.021                                   | 0.053 | 2,601                             | 2,890   |                   |                                         |       |                                   |         |
|           |          | 16×35.5           | 0.022                                   | 0.055 | 2,295                             | 2,550   | 18×40             | 0.017                                   | 0.043 | 2,709                             | 3,010   |                   |                                         |       |                                   |         |
| 3,900     |          | 16×35.5           | 0.022                                   | 0.055 | 2,394                             | 2,660   |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |
|           |          | 16×40             | 0.018                                   | 0.045 | 2,610                             | 2,900   | 18×40             | 0.017                                   | 0.043 | 2,934                             | 3,260   |                   |                                         |       |                                   |         |
|           |          | 18×35.5           | 0.021                                   | 0.053 | 2,448                             | 2,720   |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |
| 4,700     |          | 18×35.5           | 0.021                                   | 0.053 | 2,601                             | 2,890   |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |
|           |          | 18×40             | 0.017                                   | 0.043 | 2,709                             | 3,010   |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |
| 5,600     |          | 18×40             | 0.017                                   | 0.043 | 2,934                             | 3,260   |                   |                                         |       |                                   |         |                   |                                         |       |                                   |         |



## Dimension and Permissible Ripple Current

Dimension:  $\phi D \times L(\text{mm})$   
Ripple Current: mA/rms at 100k Hz, 105°C

| Cap. (μF) | Contents | 63V(1J)           |                                |       |                                   |         |
|-----------|----------|-------------------|--------------------------------|-------|-----------------------------------|---------|
|           |          | $\phi D \times L$ | Impedance<br>(Ω, max./100k Hz) |       | Ripple Current<br>(mA/rms, 105°C) |         |
|           |          |                   | 20°C                           | -10°C | 120 Hz                            | 100k Hz |
| 12        | 5×11     |                   | 1.90                           | 4.78  | 55                                | 100     |
| 27        | 6.3×11   |                   | 1.10                           | 2.78  | 88                                | 160     |
| 33        | 6.3×11   |                   | 1.10                           | 2.75  | 96                                | 175     |
| 39        | 6.3×15   |                   | 0.62                           | 1.55  | 161                               | 230     |
| 47        | 8×11.5   |                   | 0.49                           | 1.23  | 193                               | 275     |
| 56        | 8×11.5   |                   | 0.49                           | 1.23  | 203                               | 290     |
|           | 10×12.5  |                   | 0.27                           | 0.675 | 294                               | 420     |
| 68        | 8×15     |                   | 0.34                           | 0.850 | 252                               | 360     |
|           | 10×12.5  |                   | 0.27                           | 0.675 | 354                               | 505     |
|           | 10×16    |                   | 0.21                           | 0.525 | 366                               | 523     |
| 82        | 8×20     |                   | 0.21                           | 0.525 | 350                               | 500     |
| 100       | 8×15     |                   | 0.34                           | 0.850 | 308                               | 440     |
| 120       | 10×16    |                   | 0.210                          | 0.525 | 455                               | 650     |
|           | 10×20    |                   | 0.160                          | 0.400 | 490                               | 700     |
| 150       | 8×20     |                   | 0.210                          | 0.525 | 476                               | 680     |
|           | 10×25    |                   | 0.130                          | 0.325 | 546                               | 780     |
| 180       | 10×20    |                   | 0.160                          | 0.400 | 553                               | 790     |
|           | 10×30    |                   | 0.100                          | 0.250 | 672                               | 960     |
| 220       | 10×25    |                   | 0.130                          | 0.325 | 648                               | 925     |
|           | 12.5×20  |                   | 0.110                          | 0.275 | 609                               | 870     |
| 270       | 10×30    |                   | 0.100                          | 0.250 | 812                               | 1,160   |
|           | 12.5×25  |                   | 0.074                          | 0.185 | 805                               | 1,150   |
| 330       | 12.5×20  |                   | 0.110                          | 0.275 | 746                               | 1,065   |
| 390       | 12.5×25  |                   | 0.074                          | 0.185 | 1,088                             | 1,280   |
|           | 12.5×30  |                   | 0.068                          | 0.170 | 1,024                             | 1,360   |
| 470       | 12.5×30  |                   | 0.068                          | 0.170 | 1,120                             | 1,360   |
|           | 12.5×35  |                   | 0.063                          | 0.158 | 1,112                             | 1,400   |
|           | 16×20    |                   | 0.059                          | 0.148 | 1,080                             | 1,350   |
|           | 16×25    |                   | 0.055                          | 0.138 | 1,184                             | 1,480   |
| 560       | 12.5×40  |                   | 0.051                          | 0.128 | 1,224                             | 1,530   |
|           | 16×25    |                   | 0.055                          | 0.138 | 1,296                             | 1,620   |
| 680       | 12.5×40  |                   | 0.051                          | 0.128 | 1,336                             | 1,670   |
|           | 16×31.5  |                   | 0.046                          | 0.115 | 1,376                             | 1,720   |
| 820       | 12.5×40  |                   | 0.051                          | 0.128 | 1,480                             | 1,850   |
|           | 16×31.5  |                   | 0.046                          | 0.115 | 1,512                             | 1,890   |
|           | 16×35.5  |                   | 0.040                          | 0.100 | 1,528                             | 1,910   |
| 1,000     | 16×35.5  |                   | 0.040                          | 0.100 | 1,576                             | 1,970   |
|           | 18×35.5  |                   | 0.040                          | 0.100 | 1,688                             | 2,110   |
| 1,500     | 18×35.5  |                   | 0.040                          | 0.100 | 2,169                             | 2,410   |

## Part Numbering System

|             |             |                       |               |                              |             |             |                           |
|-------------|-------------|-----------------------|---------------|------------------------------|-------------|-------------|---------------------------|
| RXK Series  | 470μF       | ±20%                  | 6.3V          | Bulk Package                 | Gas Type    | 8φ×11.5L    | Pb-free and PET sleeve    |
| <b>RXK</b>  | <b>471</b>  | <b>M</b>              | <b>0J</b>     | <b>BK</b>                    | <b>-</b>    | <b>0811</b> |                           |
| Series Name | Capacitance | Capacitance Tolerance | Rated Voltage | Lead Configuration & Package | Rubber Type | Case Size   | Lead Wire and Sleeve type |

Note: For more details, please refer to "Part Numbering System (Radial Type)" on page 13.



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331