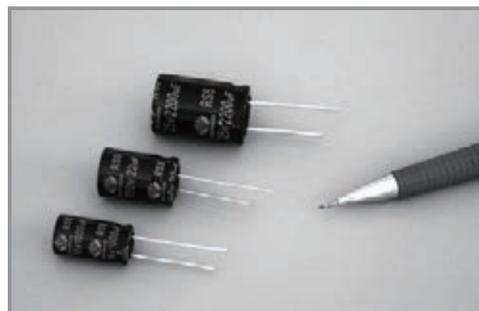


# RSS SERIES

85°C, Standard, Radial Leads

## ■ Features

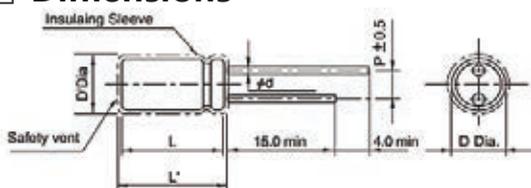
- 85°C, Standard, Radial
- High performance
- Ideal for automatic insertion
- Load life of 2,000 hours at 85°C



## ■ Specifications

| Item                                                                | Performance Characteristics                                                                                                               |                                           |      |                        |      |      |        |                        |         |         |         |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|------------------------|------|------|--------|------------------------|---------|---------|---------|
|                                                                     | -40°C ~ +85°C                                                                                                                             |                                           |      | -25°C ~ +85°C          |      |      |        | -25°C ~ +85°C          |         |         |         |
| Operating temperature range                                         | -40°C ~ +85°C                                                                                                                             |                                           |      | -25°C ~ +85°C          |      |      |        | -25°C ~ +85°C          |         |         |         |
| Rated working voltage range                                         | 6.3V ~ 100V                                                                                                                               |                                           |      | 160V ~ 250V            |      |      |        | 350V ~ 500V            |         |         |         |
| Nominal capacitance range                                           | 0.1 μF ~ 15,000 μF , ±20% (at 20°C, 120Hz)                                                                                                |                                           |      |                        |      |      |        |                        |         |         |         |
| D.C Leakage current(at 20°C)                                        | The following specifications shall be satisfied when the rated voltage is applied for the required time.                                  |                                           |      |                        |      |      |        |                        |         |         |         |
|                                                                     | I ≤ 0.01CV or 3μA (2min),<br>whichever is greater.                                                                                        |                                           |      | I ≤ 0.01CV+10μA (3min) |      |      |        | I ≤ 0.02CV+30μA (3min) |         |         |         |
|                                                                     | Where I = Leakage current(μA)      C = Nominal capacitance(μF)      V = Rated voltage (V)                                                 |                                           |      |                        |      |      |        |                        |         |         |         |
| Tan δ (max., at 20°C, 120Hz)                                        | W.V                                                                                                                                       | 6.3                                       | 10   | 16                     | 25   | 35   | 50     | 63                     | 100     | 160~250 | 350~500 |
|                                                                     | Tan δ                                                                                                                                     | 0.26                                      | 0.22 | 0.17                   | 0.15 | 0.12 | 0.10   | 0.10                   | 0.08    | 0.20    | 0.20    |
|                                                                     | When capacitance is over 1,000μF, Tanδ shall be added 0.02 to the listed value with increase of every each 1,000μF.                       |                                           |      |                        |      |      |        |                        |         |         |         |
| Characteristics at low temperature(max.) (impedance ratio at 120Hz) | W.V(V)                                                                                                                                    | 6.3                                       | 10   | 16                     | 25   | 35   | 50~100 | 160~250                | 350~500 |         |         |
|                                                                     | Z-25°C/+20°C                                                                                                                              | 4                                         | 3    | 2                      | 2    | 2    | 2      | 2                      | 2       | 6       |         |
|                                                                     | Z-25°C/+20°C                                                                                                                              | 10                                        | 8    | 6                      | 4    | 3    | 3      | 3                      | 3       | -       |         |
| Load life                                                           | After applying rated working voltage for 2,000hours at +85°C and then being stabilized at +20°C, capacitors shall meet following limits.  |                                           |      |                        |      |      |        |                        |         |         |         |
|                                                                     | Capacitance change                                                                                                                        | Within ±20% of the initial measured value |      |                        |      |      |        |                        |         |         |         |
|                                                                     | Tan δ                                                                                                                                     | ≤200% of the initial specified value      |      |                        |      |      |        |                        |         |         |         |
|                                                                     | Leakage current                                                                                                                           | ≤The initial specified value              |      |                        |      |      |        |                        |         |         |         |
| Shelf life                                                          | After storage for 1,000hours at +85°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet following limits. |                                           |      |                        |      |      |        |                        |         |         |         |
|                                                                     | Capacitance change                                                                                                                        | Within ±20% of the initial measured value |      |                        |      |      |        |                        |         |         |         |
|                                                                     | Tan δ                                                                                                                                     | ≤200% of the initial specified value      |      |                        |      |      |        |                        |         |         |         |
|                                                                     | Leakage current                                                                                                                           | ≤The initial specified value              |      |                        |      |      |        |                        |         |         |         |

## ■ Dimensions



• Standard lead style

|     |     |     |     |      |      |      |      |
|-----|-----|-----|-----|------|------|------|------|
| Φ D | 5.0 | 6.3 | 8.0 | 10.0 | 12.5 | 16.0 | 18.0 |
| P   | 2.0 | 2.5 | 3.5 | 5.0  |      | 7.5  |      |
| Φ d | 0.5 |     | 0.6 |      |      | 0.8  |      |

D' = [D+0.5] Max.      L' = [L+1.5] Max. at D≤8.0  
 L' = [L+2.0] Max. at D≤10.0

## ■ Ripple current coefficient

• Frequency

| Cap(μF) \ Freq(Hz) | 50  | 120 | 400  | 1K   | 10K  | 50~100K |
|--------------------|-----|-----|------|------|------|---------|
| Cap ≤ 10           | 0.8 | 1.0 | 1.30 | 1.45 | 1.65 | 1.70    |
| 10 < Cap ≤ 100     | 0.8 | 1.0 | 1.23 | 1.36 | 1.48 | 1.53    |
| 100 < Cap ≤ 1000   | 0.8 | 1.0 | 1.16 | 1.25 | 1.35 | 1.38    |
| 1000 < Cap         | 0.8 | 1.0 | 1.11 | 1.17 | 1.25 | 1.28    |

# RSS SERIES

## Dimensions & Maximum permissible ripple current

| $\mu\text{F}$ \ V | 6.3               | 10                                                                                                     | 16                | 25                | 35                | 50                | 63                | 100               | 160              | 200              | 250              | 350              | 400              | 450              | 500              |  |
|-------------------|-------------------|--------------------------------------------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|
| 0.10              |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>6       |                   | 5 x 11<br>6       |                  |                  |                  |                  |                  |                  |                  |  |
| 0.22              |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>8       |                   | 5 x 11<br>8       |                  |                  | 6.3 x 11<br>22   | 8 x 11.5<br>24   | 8 x 11.5<br>24   | 8 x 11.5<br>26   |                  |  |
| 0.33              |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>10      |                   | 5 x 11<br>10      |                  |                  | 8 x 11.5<br>39   | 10 x 12.5<br>45  | 10 x 12.5<br>47  | 10 x 12.5<br>50  |                  |  |
| 0.47              |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>14      |                   | 5 x 11<br>14      |                  |                  | 10 x 12.5<br>51  | 10 x 12.5<br>56  | 10 x 16<br>58    | 10 x 16<br>58    |                  |  |
| 1.0               |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>19      |                   | 5 x 11<br>21      | 6.3 x 11<br>22   | 6.3 x 11<br>22   | 10 x 16<br>68    | 10 x 16<br>72    | 10 x 16<br>74    | 10 x 16<br>76    | 10 x 20<br>85    |  |
| 2.2               |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>25      |                   | 5 x 11<br>27      | 6.3 x 11<br>33   | 6.3 x 11<br>33   | 10 x 20<br>95    | 10 x 20<br>108   | 12.5 x 20<br>132 | 12.5 x 20<br>140 | 12.5 x 25<br>147 |  |
| 3.3               |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>32      |                   | 5 x 11<br>35      | 8 x 11.5<br>47   | 8 x 11.5<br>51   | 12.5 x 20<br>187 | 12.5 x 25<br>210 | 16 x 25<br>225   | 16 x 25<br>235   | 16 x 31.5<br>250 |  |
| 4.7               |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>42      |                   | 5 x 11<br>52      | 8 x 11.5<br>57   | 10 x 12.5<br>64  | 12.5 x 25<br>246 | 16 x 25<br>270   | 16 x 31.5<br>298 | 16 x 31.5<br>305 | 16 x 35<br>320   |  |
| 10                |                   |                                                                                                        |                   |                   |                   | 5 x 11<br>55      | 5 x 11<br>60      | 6.3 x 11<br>79    | 10 x 16<br>90    | 10 x 16<br>95    | 16 x 25<br>300   | 16 x 35.5<br>337 | 16 x 35.5<br>375 | 18 x 35.5<br>415 | 18 x 40<br>440   |  |
| 22                |                   |                                                                                                        |                   |                   | 5 x 11<br>72      | 5 x 11<br>80      | 6.3 x 11<br>95    | 8 x 11.5<br>125   | 10 x 20<br>150   | 10 x 20<br>165   | 18 x 35.5<br>510 | 18 x 40<br>576   |                  |                  |                  |  |
| 33                |                   |                                                                                                        |                   | 5 x 11<br>85      | 5 x 11<br>104     | 6.3 x 11<br>130   | 6.3 x 11<br>125   | 10 x 12.5<br>179  | 12.5 x 20<br>210 | 12.5 x 25<br>237 |                  |                  |                  |                  |                  |  |
| 47                |                   |                                                                                                        | 5 x 11<br>110     | 5 x 11<br>126     | 6.3 x 11<br>134   | 6.3 x 11<br>151   | 8 x 11.5<br>184   | 10 x 16<br>250    | 12.5 x 25<br>260 | 12.5 x 25<br>288 |                  |                  |                  |                  |                  |  |
| 100               | 5 x 11<br>135     | 5 x 11<br>150                                                                                          | 6.3 x 11<br>180   | 6.3 x 11<br>187   | 8 x 11.5<br>228   | 8 x 11.5<br>240   | 10 x 12.5<br>320  | 12.5 x 20<br>420  | 16 x 25<br>480   | 16 x 31.5<br>510 |                  |                  |                  |                  |                  |  |
| 220               | 6.3 x 11<br>220   | 6.3 x 11<br>235                                                                                        | 8 x 11.5<br>300   | 8 x 11.5<br>320   | 10 x 12.5<br>430  | 10 x 16<br>502    | 10 x 12.5<br>595  | 16 x 25<br>776    | 18 x 35.5<br>861 | 18 x 40<br>895   |                  |                  |                  |                  |                  |  |
| 330               | 6.3 x 11<br>290   | 8 x 11.5<br>345                                                                                        | 8 x 11.5<br>385   | 10 x 12.5<br>500  | 10 x 16<br>568    | 10 x 20<br>674    | 10 x 20<br>840    | 16 x 25<br>970    |                  |                  |                  |                  |                  |                  |                  |  |
| 470               | 8 x 11.5<br>380   | 8 x 11.5<br>410                                                                                        | 10 x 16<br>510    | 10 x 16<br>703    | 10 x 20<br>756    | 12.5 x 20<br>905  | 12.5 x 20<br>980  | 16 x 31.5<br>1220 |                  |                  |                  |                  |                  |                  |                  |  |
| 1,000             | 10 x 12.5<br>670  | 10 x 16<br>785                                                                                         | 10 x 20<br>950    | 12.5 x 20<br>1110 | 12.5 x 25<br>1420 | 16 x 25<br>1580   | 12.5 x 25<br>1700 |                   |                  |                  |                  |                  |                  |                  |                  |  |
| 2,200             | 12.5 x 20<br>1220 | 12.5 x 20<br>1280                                                                                      | 12.5 x 25<br>1510 | 16 x 25<br>1650   | 16 x 31.5<br>1880 | 18 x 35.5<br>2310 |                   |                   |                  |                  |                  |                  |                  |                  |                  |  |
| 3,300             | 12.5 x 20<br>1440 | 12.5 x 25<br>1655                                                                                      | 16 x 25<br>1900   | 16 x 31.5<br>2170 | 18 x 35.5<br>2510 |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |  |
| 4,700             | 16 x 25<br>1970   | 16 x 25<br>2100                                                                                        | 16 x 31.5<br>2290 | 18 x 35.5<br>2590 |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |  |
| 6,800             | 16 x 25<br>2255   | 16 x 31.5<br>2520                                                                                      | 18 x 35.5<br>2750 |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |  |
| 10,000            | 16 x 31.5<br>2740 | 18 x 35.5<br>2910                                                                                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |  |
| 15,000            | 18 x 35.5<br>3250 | Case size : $\Phi D \times L(\text{mm})$<br>Maximum permissible ripple current[mA(rms) at 85°C, 120Hz] |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |  |

MINIATURE TYPE