



### RJA 系列

特长 / 用途

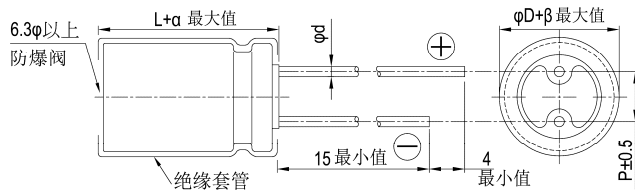
- 105℃, 广温度范围
- 适用于高信赖性产品
- 符合RoHS指令



### 规格表

| 项 目                 | 性 能   |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
|---------------------|---|----------------------|--------|--------------|---------|--------------|--------|---------------|--------|---------|-----|-------------|-------|---------|---------|------|------|------|------|--------------------|------|------|----------|---------|------|---------|------|------|------|------|------|-------------|---------|---|---|---|---|---|---|---|----------|---------|----|---|---|---|---|---|---|
| 工作温度范围              | 6.3 ~ 63V<br>-55℃ ~ +105℃   | 100V<br>-40℃ ~ +105℃ |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 额定静电容量容许误差值         | ± 20% (120Hz, 20℃)  |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 漏电流(20℃)            | I = 0.01CV 或 3(μA/微安)中的任一个较大值以下(2分钟后)<br>I = 漏电流(μA/微安)、C = 额定静电容量(μF/微法拉)、V = 额定直流工作电压(V/伏特)   |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 损失角正切值(120 Hz, 20℃) | <table border="1"> <tr> <th>额定电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> <tr> <td>损失角正切值(最大值)</td> <td>0.23</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </table> <p>当额定静电容量大于 1,000 微法拉时, 每增加 1,000 微法拉需加 0.02。</p>   |                      | 额定电压   | 6.3          | 10      | 16           | 25     | 35            | 50     | 63      | 100 | 损失角正切值(最大值) | 0.23  | 0.20    | 0.16    | 0.14 | 0.12 | 0.10 | 0.09 | 0.08               |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 额定电压                | 6.3   | 10                   | 16     | 25           | 35      | 50           | 63     | 100           |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 损失角正切值(最大值)         | 0.23  | 0.20                 | 0.16   | 0.14         | 0.12    | 0.10         | 0.09   | 0.08          |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 温度特性(120Hz)         | <p>阻抗比不可大于下表所列数值</p> <table border="1"> <tr> <th colspan="2">额定电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> <tr> <td rowspan="4">阻抗比</td> <td>Z(-25℃)</td> <td>φD &lt; 16</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>/Z(+20℃)</td> <td>φD ≥ 16</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> </tr> <tr> <td>Z(-40/-55℃)</td> <td>φD &lt; 16</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> <tr> <td>/Z(+20℃)</td> <td>φD ≥ 16</td> <td>12</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>6</td> </tr> </table> |                      | 额定电压   |              | 6.3     | 10           | 16     | 25            | 35     | 50      | 63  | 100         | 阻抗比   | Z(-25℃) | φD < 16 | 4    | 3    | 3    | 2    | 2                  | 2    | 2    | /Z(+20℃) | φD ≥ 16 | 5    | 4       | 3    | 2    | 2    | 2    | 3    | Z(-40/-55℃) | φD < 16 | 8 | 6 | 4 | 4 | 4 | 3 | 3 | /Z(+20℃) | φD ≥ 16 | 12 | 8 | 6 | 4 | 3 | 3 | 6 |
| 额定电压                |   | 6.3                  | 10     | 16           | 25      | 35           | 50     | 63            | 100    |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 阻抗比                 | Z(-25℃)   | φD < 16              | 4      | 3            | 3       | 2            | 2      | 2             | 2      |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
|                     | /Z(+20℃)  | φD ≥ 16              | 5      | 4            | 3       | 2            | 2      | 2             | 3      |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
|                     | Z(-40/-55℃)   | φD < 16              | 8      | 6            | 4       | 4            | 4      | 3             | 3      |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
|                     | /Z(+20℃)  | φD ≥ 16              | 12     | 8            | 6       | 4            | 3      | 3             | 6      |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 耐久性                 | <table border="1"> <tr> <td>保证寿命时间</td> <td>2,000 小时</td> </tr> <tr> <td>静电容量变化率</td> <td>≦ 初始值的 ± 20%</td> </tr> <tr> <td>损失角正切值</td> <td>≦ 初始规格值的 200%</td> </tr> <tr> <td>漏电流</td> <td>≦ 初始规格值</td> </tr> </table> <p>* 于 105℃ 环境中供给容许纹波电流值与额定电压 2,000 小时后, 待制品回复至 20℃ 的环境中进行量测时, 需满足上列要求。</p>   |                      | 保证寿命时间 | 2,000 小时     | 静电容量变化率 | ≦ 初始值的 ± 20% | 损失角正切值 | ≦ 初始规格值的 200% | 漏电流    | ≦ 初始规格值 |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 保证寿命时间              | 2,000 小时  |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 静电容量变化率             | ≦ 初始值的 ± 20%  |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 损失角正切值              | ≦ 初始规格值的 200%   |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 漏电流                 | ≦ 初始规格值   |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 高温无负荷特性             | <table border="1"> <tr> <td>保证寿命时间</td> <td>1,000 小时</td> </tr> <tr> <td>静电容量变化率</td> <td>≦ 初始值的 ± 20%</td> </tr> <tr> <td>损失角正切值</td> <td>≦ 初始规格值的 200%</td> </tr> <tr> <td>漏电流</td> <td>≦ 初始规格值</td> </tr> </table> <p>* 于 105℃ 环境中不供给额定电压 1,000 小时后, 待制品回复至 20℃ 的环境中进行量测时, 需满足上列要求。</p>  |                      | 保证寿命时间 | 1,000 小时     | 静电容量变化率 | ≦ 初始值的 ± 20% | 损失角正切值 | ≦ 初始规格值的 200% | 漏电流    | ≦ 初始规格值 |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 保证寿命时间              | 1,000 小时  |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 静电容量变化率             | ≦ 初始值的 ± 20%  |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 损失角正切值              | ≦ 初始规格值的 200%   |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 漏电流                 | ≦ 初始规格值   |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 纹波电流与频率修正系数         | <table border="1"> <tr> <th rowspan="2">频率(Hz)</th> <th colspan="5">静电容量(μF/微法拉)</th> </tr> <tr> <th>60(50)</th> <th>120</th> <th>500</th> <th>1k</th> <th>10k ≦</th> </tr> <tr> <td>≦ 100</td> <td>0.70</td> <td>1.00</td> <td>1.30</td> <td>1.40</td> <td>1.50</td> </tr> <tr> <td>100 &lt; 静电容量 ≦ 1,000</td> <td>0.75</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.35</td> </tr> <tr> <td>1,000 &lt;</td> <td>0.80</td> <td>1.00</td> <td>1.10</td> <td>1.12</td> <td>1.15</td> </tr> </table>   |                      | 频率(Hz) | 静电容量(μF/微法拉) |         |              |        |               | 60(50) | 120     | 500 | 1k          | 10k ≦ | ≦ 100   | 0.70    | 1.00 | 1.30 | 1.40 | 1.50 | 100 < 静电容量 ≦ 1,000 | 0.75 | 1.00 | 1.20     | 1.30    | 1.35 | 1,000 < | 0.80 | 1.00 | 1.10 | 1.12 | 1.15 |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 频率(Hz)              | 静电容量(μF/微法拉)  |                      |        |              |         |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
|                     | 60(50)  | 120                  | 500    | 1k           | 10k ≦   |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| ≦ 100               | 0.70  | 1.00                 | 1.30   | 1.40         | 1.50    |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 100 < 静电容量 ≦ 1,000  | 0.75  | 1.00                 | 1.20   | 1.30         | 1.35    |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |
| 1,000 <             | 0.80  | 1.00                 | 1.10   | 1.12         | 1.15    |              |        |               |        |         |     |             |       |         |         |      |      |      |      |                    |      |      |          |         |      |         |      |      |      |      |      |             |         |   |   |   |   |   |   |   |          |         |    |   |   |   |   |   |   |

### 寸法图



制品各项寸法 单位: 毫米

|    |                          |     |     |     |      |     |     |
|----|--------------------------|-----|-----|-----|------|-----|-----|
| φD | 5                        | 6.3 | 8   | 10  | 12.5 | 16  | 18  |
| P  | 2.0                      | 2.5 | 3.5 | 5.0 | 5.0  | 7.5 | 7.5 |
| φd | 0.5                      |     | 0.6 |     | 0.8  |     |     |
| α  | L < 20: 1.5, L ≧ 20: 2.0 |     |     |     |      |     |     |
| β  | 0.5                      |     |     |     |      |     |     |

引线型



尺寸: 直径(φD)×长度(L), (毫米/mm)

容许纹波电流: 毫安/均方根值(mA/rms), 120 赫兹(Hz), 105°C

制品尺寸与容许纹波电流一览表

| 额定电压 Vdc<br>内容<br>(μF/微法拉) |     | 6.3V (0J) |       | 10V (1A) |       | 16V (1C) |       | 25V (1E) |       | 35V (1V) |       | 50V (1H) |       | 63V (1J) |       | 100V (2A) |     |
|----------------------------|-----|-----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|-----------|-----|
|                            |     | φD×L      | mA    | φD×L     | mA    | φD×L     | mA    | φD×L     | mA    | φD×L     | mA    | φD×L     | mA    | φD×L     | mA    | φD×L      | mA  |
| 2.2                        | 2R2 |           |       |          |       |          |       |          |       |          |       | 5×11     | 20    |          |       | 5×11      | 26  |
| 3.3                        | 3R3 |           |       |          |       |          |       |          |       |          |       | 5×11     | 30    |          |       | 5×11      | 31  |
| 4.7                        | 4R7 |           |       |          |       |          |       |          |       |          |       | 5×11     | 33    | 5×11     | 36    | 5×11      | 36  |
| 10                         | 100 |           |       |          |       |          |       |          |       |          |       | 5×11     | 50    | 5×11     | 54    | 6.3×11    | 40  |
| 22                         | 220 |           |       |          |       |          |       |          |       |          |       | 5×11     | 78    | 5×11     | 64    | 6.3×11    | 93  |
| 33                         | 330 |           |       |          |       |          |       |          |       | 5×11     | 85    | 5×11     | 90    | 6.3×11   | 100   | 8×11.5    | 144 |
| 47                         | 470 |           |       |          |       |          |       | 5×11     | 97    | 5×11     | 90    | 6.3×11   | 117   | 6.3×11   | 129   | 10×12.5   | 204 |
| 100                        | 101 |           |       |          |       | 5×11     | 110   | 5×11     | 120   | 6.3×11   | 150   | 8×11.5   | 188   | 10×12.5  | 235   | 10×20     | 285 |
| 220                        | 221 |           |       | 5×11     | 150   | 6.3×11   | 180   | 8×11.5   | 236   | 8×11.5   | 270   | 10×16    | 335   | 10×20    | 400   | 12.5×25   | 440 |
| 330                        | 331 |           |       | 6.3×11   | 200   | 8×11.5   | 260   | 8×11.5   | 330   | 10×12.5  | 350   | 10×16    | 410   | 10×20    | 490   | 16×25     | 478 |
| 470                        | 471 | 6.3×11    | 230   | 6.3×11   | 250   | 8×11.5   | 310   | 10×12.5  | 380   | 10×16    | 460   | 12.5×20  | 590   | 12.5×20  | 665   | 16×31.5   | 688 |
| 1,000                      | 102 | 8×11.5    | 380   | 10×12.5  | 460   | 10×16    | 560   | 10×20    | 680   | 12.5×20  | 830   | 16×25    | 1,080 | 16×25    | 1,190 |           |     |
| 2,200                      | 222 | 10×16     | 690   | 10×20    | 760   | 12.5×20  | 920   | 12.5×25  | 1,090 | 16×25    | 1,260 | 16×35.5  | 1,470 |          |       |           |     |
| 3,300                      | 332 | 10×20     | 840   | 12.5×20  | 1,100 | 12.5×25  | 1,170 | 16×25    | 1,400 | 16×35.5  | 1,610 | 18×35.5  | 1,650 |          |       |           |     |
| 4,700                      | 472 | 12.5×20   | 1,090 | 12.5×25  | 1,260 | 16×25    | 1,480 | 16×31.5  | 1,710 | 18×35.5  | 1,900 |          |       |          |       |           |     |
| 6,800                      | 682 | 12.5×25   | 1,460 | 16×25    | 1,690 | 16×31.5  | 1,930 | 18×35.5  | 2,160 |          |       |          |       |          |       |           |     |
| 10,000                     | 103 | 16×25     | 1,990 | 16×31.5  | 2,220 | 18×31.5  | 2,330 |          |       |          |       |          |       |          |       |           |     |
| 22,000                     | 223 | 18×35.5   | 2,930 | 18×40    | 3,230 |          |       |          |       |          |       |          |       |          |       |           |     |

产品编码说明

RJA系列    470微法拉    ± 20%    6.3V    长脚    透气式    6.3 φ × 11L    无铅引线与PET套管

**RJA**    **471**    **M**    **0J**    **BK**    -    **0611**

系列    额定静电容量    额定静电容量    额定电压    引线加工 / 包装型    胶盖型式    制品尺寸    制品引线与套管材质

容许误差值

注: 如需了解更详细介绍, 请参阅目录第 13 页"引线型产品编码说明"。