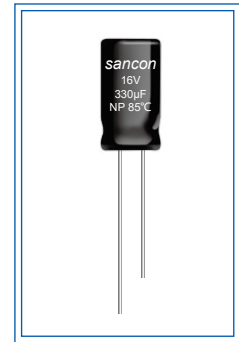


# NP 双极性 / 标准品 (CD71)

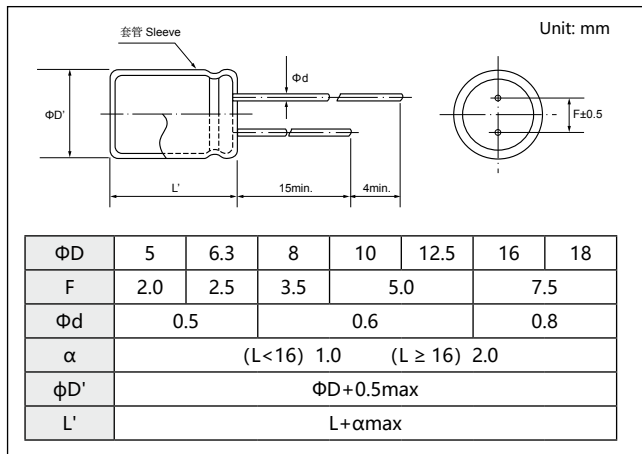
- 85°C 1000 小时。85°C 1000 hours.
- 双极性，标准品，用于极性翻转或极性变换的电路中。  
Bi-polarized, standard series, used in polarity reverse and change circuits.
- 符合 RoHS。RoHS Compliant.



## 主要技术性能 Specifications

| 项目 Item   | 特性 Performance Characteristics   |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |
|---|--|---------------------------------|------|------|------|------|------|------|------|-----|-----|-----------|------|------|------|------|------|------|------|------|------|
| 工作温度范围<br>Category Temperature Range  | -40~+85°C  |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |
| 额定电压范围<br>Rated Voltage Range   | 6.3~160V <sub>dc</sub>   |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |
| 标称电容量允许偏差<br>Capacitance Tolerance  | ±20% (+20°C, 120Hz)  |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |
| 漏电流<br>Leakage Current  | $I \leq 0.03CV + 3(\mu A)$ 1 分钟 (1 minute)   |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |
| 损耗角正切值 (tgδ)<br>Dissipation Factor<br>(+20°C, 120Hz)  | <table border="1"> <tr> <td>Rated Voltage(V<sub>dc</sub>)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> </tr> <tr> <td>tgδ(Max.)</td> <td>0.28</td> <td>0.24</td> <td>0.22</td> <td>0.20</td> <td>0.15</td> <td>0.14</td> <td>0.10</td> <td>0.09</td> <td>0.15</td> </tr> </table>   | Rated Voltage(V <sub>dc</sub> ) | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   | 100 | 160 | tgδ(Max.) | 0.28 | 0.24 | 0.22 | 0.20 | 0.15 | 0.14 | 0.10 | 0.09 | 0.15 |
|   | Rated Voltage(V <sub>dc</sub> )  | 6.3                             | 10   | 16   | 25   | 35   | 50   | 63   | 100  | 160 |     |           |      |      |      |      |      |      |      |      |      |
| tgδ(Max.)   | 0.28   | 0.24                            | 0.22 | 0.20 | 0.15 | 0.14 | 0.10 | 0.09 | 0.15 |     |     |           |      |      |      |      |      |      |      |      |      |
| 容量大于 1000µF 者，每增加 1000µF, 其损耗角正切值增加 0.02。<br>When nominal capacitance exceeds 1000µF, add 0.02 to the value above for each 1000µF increase. |  |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |
| 耐久性<br>Load Life  | +85°C加额定电压 1000 小时 (每 250 小时反转极性一次)，恢复 16 小时后：<br>After applying rated voltage for 1000 hours at +85°C (with the polarity inverted every 250 hours) and then resumed 16 hours:<br>电容量变化率 Capacitance change : ≤初始值的 ±20% ±20% of the initial value<br>损耗角正切值 Dissipation factor : ≤初始规格值的 200% 200% of the initial specified value<br>漏 电 流 Leakage current : ≤初始规格值 The initial specified value |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |
| 高温贮存<br>Shelf Life  | +85°C, 1000 小时贮存后，恢复 16 小时后：<br>After storage for 1000 hours at +85°C and then resumed 16 hours:<br>电容量变化率 Capacitance change : ≤初始值的 ±20% ±20% of the initial value<br>损耗角正切值 Dissipation factor : ≤初始规格值的 200% 200% of the initial specified value<br>漏 电 流 Leakage current : ≤初始规格值 The initial specified value   |                                 |      |      |      |      |      |      |      |     |     |           |      |      |      |      |      |      |      |      |      |

## 外形图及尺寸 Diagram of Dimensions



## 纹波电流修正系数 Multiplier for Ripple Current

频率系数 Frequency coefficient

| U <sub>R</sub> (V) | Frequency (Hz) | 50/60 | 120 | 1K  | 10K | 100K |
|--------------------|----------------|-------|-----|-----|-----|------|
| 6.3~16             | 50/60          | 0.80  | 1   | 1.1 | 1.2 | 1.2  |
|                    | 120            | 0.80  | 1   | 1.5 | 1.7 | 1.7  |
| 25~35              | 50/60          | 0.80  | 1   | 1.6 | 1.9 | 1.9  |
|                    | 120            | 0.80  | 1   | 1.6 | 1.9 | 1.9  |

温度系数 Temperature coefficient

| Temperature (°C) | +70  | +85 |
|------------------|------|-----|
| Coefficient      | 1.35 | 1   |

标准品一览表 Standard Ratings

| Rated Voltage (V <sub>dc</sub> )<br>C <sub>R</sub> (μF) Code |     | 6.3V   |      | 10V    |      | 16V    |      | 25V    |      | 35V    |      |
|--|-----|--------|------|--------|------|--------|------|--------|------|--------|------|
|  |     | 0J     |      | 1A     |      | 1C     |      | 1E     |      | 1V     |      |
| 0.47   | R47 |        |      |        |      |        |      |        |      |        |      |
| 1.0  | 010 |        |      |        |      |        |      |        |      |        |      |
| 2.2  | 2R2 |        |      |        |      |        |      |        |      |        |      |
| 3.3  | 3R3 |        |      |        |      |        |      |        |      |        |      |
| 4.7  | 4R7 |        |      |        |      |        |      |        |      | 5×11   | 34   |
| 10   | 100 |        |      |        |      | 5×11   | 47   | 5×11   | 42   | 5×11   | 43   |
| 22   | 220 |        |      | 5×11   | 57   | 5×11   | 57   | 6.3×11 | 65   | 6.3×11 | 73   |
| 33   | 330 | 5×11   | 64   | 5×11   | 64   | 5×11   | 40   | 6.3×11 | 80   | 8×12   | 100  |
| 47   | 470 | 5×11   | 76   | 5×11   | 76   | 6.3×11 | 95   | 6.3×11 | 95   | 8×12   | 120  |
| 100  | 101 | 6.3×11 | 125  | 6.3×11 | 125  | 8×12   | 160  | 8×12   | 160  | 10×16  | 230  |
| 220  | 221 | 8×12   | 215  | 8×12   | 215  | 10×13  | 275  | 10×16  | 305  | 13×20  | 410  |
| 330  | 331 | 8×12   | 265  | 10×16  | 345  | 10×16  | 375  | 13×20  | 450  | 13×20  | 505  |
| 470  | 471 | 10×13  | 370  | 10×16  | 410  | 10×20  | 485  | 13×20  | 540  | 13×25  | 655  |
| 1000   | 102 | 10×20  | 650  | 13×20  | 720  | 16×25  | 855  | 16×25  | 950  | 16×30  | 1140 |
| 2200   | 222 | 13×25  | 1160 | 16×25  | 1280 | 16×30  | 1510 | 19×35  | 1620 |        |      |
| 3300   | 332 | 16×25  | 1570 | 16×30  | 1690 | 19×35  | 1980 |        |      |        |      |
| 4700   | 472 | 16×30  | 2020 | 19×35  | 2160 |        |      |        |      |        |      |
| 6800   | 682 | 19×35  | 2600 |        |      |        |      |        |      |        |      |

| Rated Voltage (V <sub>dc</sub> )<br>C <sub>R</sub> (μF) Code |     | 50V    |     | 63V    |     | 100V   |     | 160V  |     |
|--|-----|--------|-----|--------|-----|--------|-----|-------|-----|
|  |     | 1H     |     | 1J     |     | 2A     |     | 2C    |     |
| 0.47   | R47 | 5×11   | 11  |        |     | 5×11   | 14  |       |     |
| 1.0  | 010 | 5×11   | 17  |        |     | 5×11   | 21  |       |     |
| 2.2  | 2R2 | 5×11   | 25  |        |     | 6.3×11 | 34  |       |     |
| 3.3  | 3R3 | 5×11   | 27  | 5×11   | 28  | 6.3×11 | 39  | 10×16 | 49  |
| 4.7  | 4R7 | 5×11   | 34  | 6.3×11 | 34  | 6.3×11 | 47  | 10×16 | 59  |
| 10   | 100 | 6.3×11 | 52  | 6.3×11 | 57  | 8×12   | 71  | 13×20 | 109 |
| 22   | 220 | 8×12   | 89  | 8×12   | 95  | 10×16  | 135 | 13×25 | 177 |
| 33   | 330 | 8×12   | 105 | 10×13  | 135 | 13×20  | 220 | 16×25 | 240 |
| 47   | 470 | 10×13  | 150 | 10×16  | 180 | 13×20  | 240 | 16×35 | 329 |
| 100  | 101 | 10×20  | 265 | 13×20  | 320 | 16×25  | 425 | 19×35 | 425 |
| 220  | 221 | 13×25  | 480 | 16×25  | 575 | 19×35  | 720 |       |     |
| 330  | 331 | 16×25  | 650 | 16×30  | 655 |        |     |       |     |
| 470  | 471 | 16×30  | 835 | 19×35  | 965 |        |     |       |     |

额定纹波电流 Rated ripple current(mA, +85°C, 120Hz)

可根据客户需要定制产品 Customer products are available on request.