

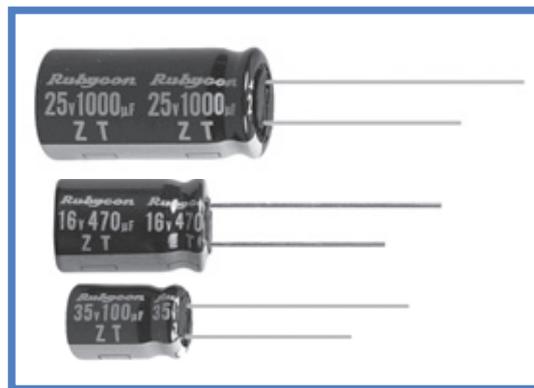
## ZT 系列

SERIES

125°C、1000~4000小时 低阻抗品  
Load Life : 125°C 1000~4000 hours. Low impedance.

### ◆ 特 长 / FEATURES

- 高频阻抗规格设定。  
Low impedance at 100kHz with selected materials.
- 125°C、1000~4000小时品。  
Load Life : 125°C 1000~4000 hours.
- RoHS指令对应品。  
RoHS compliance.



### ◆ 规格表 / SPECIFICATIONS

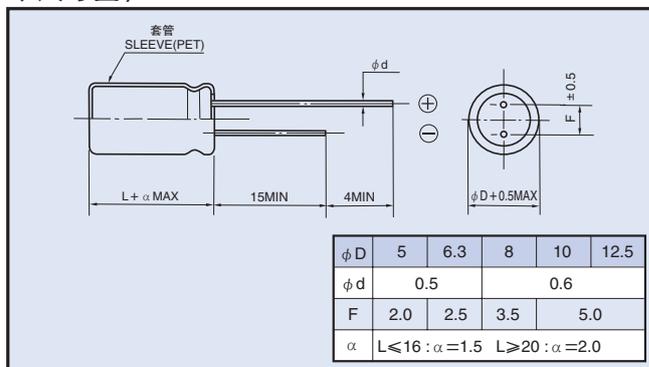
| 项 目 Items  | 特 性 Characteristics  |                               |   |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
|--|--|-------------------------------|---|-------------------|-----------------------|------------------------------|--|------------------|------|--------------------------|---|--------|------|------------------|---|---------|------|---|--|-----------|------|
| 工作温度范围<br>Category Temperature Range                               | -40 ~ +125°C   |                               |   |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 额定电压范围<br>Rated Voltage Range                                      | 10 ~ 35V.DC  |                               |   |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 静电容量允许差<br>Capacitance Tolerance                                   | ±20% (20°C, 120Hz)   |                               |   |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 漏 电 流<br>Leakage Current(MAX)                                      | 小于I=0.03CV和3µA中的较大值 (施加额定电压2分钟后)<br>I=0.03CV or 3µA whichever is greater. (After 2 minutes)<br>I=漏电流 (µA) Leakage Current      C=额定静电容量 (µF) Rated Capacitance      V=额定电压 (V) Rated Voltage   |                               |   |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 损失角正切值(tan δ)<br>Dissipation Factor(MAX)                           | <table border="1"> <tr> <td>额定电压 (V)<br/>Rated Voltage</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tan δ</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td></td> </tr> </table> <p>对于额定静电容量超过1000µF的产品, 其静电容量每增加1000µF, 则损失角正切值在上表值的基础上加上0.02。<br/>When rated capacitance is over 1000µF, tan δ shall be added 0.02 to the listed value with increase of every 1000µF.</p>   | 额定电压 (V)<br>Rated Voltage     | 10  | 16                | 25                    | 35                           | (20°C, 120Hz)  | tan δ            | 0.20 | 0.16                     | 0.14  | 0.12   |      |                  |   |         |      |   |  |           |      |
| 额定电压 (V)<br>Rated Voltage  | 10   | 16                            | 25  | 35                | (20°C, 120Hz)         |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| tan δ  | 0.20   | 0.16                          | 0.14  | 0.12              |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 耐 久 性<br>Endurance   | <p>在125°C环境中, 不超过额定电压的范围内叠加额定纹波电流, 连续加载右表时间后, 满足以下各项要求。<br/>After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>静电容量变化率<br/>Capacitance Change</td> <td>初期值的±30%以内<br/>Within ±30% of the initial value.</td> <td>铝壳尺寸<br/>Case Size</td> <td>时间 (hrs)<br/>Life Time</td> </tr> <tr> <td>损失角正切值<br/>Dissipation Factor</td> <td>规格值的300%以下<br/>Not more than 300% of the specified value.</td> <td>φD ≤ 6.3</td> <td>1000</td> </tr> <tr> <td>漏 电 流<br/>Leakage Current</td> <td>规格值以下<br/>Not more than the specified value.</td> <td>φD = 8</td> <td>2000</td> </tr> <tr> <td></td> <td></td> <td>φD = 10</td> <td>3000</td> </tr> <tr> <td></td> <td></td> <td>φD = 12.5</td> <td>4000</td> </tr> </table> | 静电容量变化率<br>Capacitance Change | 初期值的±30%以内<br>Within ±30% of the initial value. | 铝壳尺寸<br>Case Size | 时间 (hrs)<br>Life Time | 损失角正切值<br>Dissipation Factor | 规格值的300%以下<br>Not more than 300% of the specified value. | φD ≤ 6.3         | 1000 | 漏 电 流<br>Leakage Current | 规格值以下<br>Not more than the specified value. | φD = 8 | 2000 |                  |   | φD = 10 | 3000 |   |  | φD = 12.5 | 4000 |
| 静电容量变化率<br>Capacitance Change                                      | 初期值的±30%以内<br>Within ±30% of the initial value.  | 铝壳尺寸<br>Case Size             | 时间 (hrs)<br>Life Time                           |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 损失角正切值<br>Dissipation Factor                                       | 规格值的300%以下<br>Not more than 300% of the specified value.   | φD ≤ 6.3                      | 1000  |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 漏 电 流<br>Leakage Current   | 规格值以下<br>Not more than the specified value.  | φD = 8                        | 2000  |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
|  |  | φD = 10                       | 3000  |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
|  |  | φD = 12.5                     | 4000  |                   |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| 低温特性<br>Low Temperature Stability<br>(阻抗比)<br>Impedance Ratio(MAX) | <table border="1"> <tr> <td>额定电压 (V)<br/>Rated Voltage</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td></td> </tr> </table>  | 额定电压 (V)<br>Rated Voltage     | 10  | 16                | 25                    | 35                           | (120Hz)  | Z(-25°C)/Z(20°C) | 3    | 2                        | 2   | 2      |      | Z(-40°C)/Z(20°C) | 6 | 4       | 3    | 3 |  |           |      |
| 额定电压 (V)<br>Rated Voltage  | 10   | 16                            | 25  | 35                | (120Hz)               |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| Z(-25°C)/Z(20°C)   | 3  | 2                             | 2   | 2                 |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |
| Z(-40°C)/Z(20°C)   | 6  | 4                             | 3   | 3                 |                       |                              |  |                  |      |                          |   |        |      |                  |   |         |      |   |  |           |      |

### ◆ 纹波电流修正系数 / MULTIPLIER FOR RIPPLE CURRENT

频率系数 Frequency Coefficient

| 频率 (Hz)<br>Frequency | 120          | 1k   | 10k  | 100k ≤ |      |
|----------------------|--------------|------|------|--------|------|
| 系 数<br>Coefficient   | 22 ~ 33µF    | 0.20 | 0.50 | 0.80   | 1.00 |
|                      | 39 ~ 100µF   | 0.25 | 0.60 | 0.90   | 1.00 |
|                      | 120 ~ 270µF  | 0.35 | 0.70 | 0.92   | 1.00 |
|                      | 330 ~ 680µF  | 0.45 | 0.75 | 0.95   | 1.00 |
|                      | 820 ~ 1800µF | 0.50 | 0.80 | 0.96   | 1.00 |
| 2200µF               | 0.55         | 0.85 | 0.98 | 1.00   |      |

### ◆ 尺寸图 / DIMENSIONS (mm)



### ◆ 副记号 / OPTION

|                  | 记号 Code |
|------------------|---------|
| PET套管 PET Sleeve | 无 Blank |

### ◆ 产品型号体系 / PART NUMBER

|                       |                |                             |                                  |               |                        |                   |
|-----------------------|----------------|-----------------------------|----------------------------------|---------------|------------------------|-------------------|
| □□□                   | ZT             | □□□□□                       | M                                | □□□           | □□                     | D × L             |
| 额定电压<br>Rated Voltage | 系列名称<br>Series | 额定静电容量<br>Rated Capacitance | 静电容量允许差<br>Capacitance Tolerance | 副记号<br>Option | 引线加工记号<br>Lead Forming | 铝壳尺寸<br>Case Size |

◆标准品一览表 / STANDARD SIZE

| 额定电压<br>Rated Voltage<br>(V · DC) | 额定静电容量<br>Rated capacitance (μF) | 外形尺寸<br>Size<br>φ D×L(mm) | 额定纹波电流<br>Rated ripple current<br>(mA r.m.s./125°C, 100kHz) | 阻抗 (Ω MAX)<br>Impedance |               |
|-----------------------------------|----------------------------------|---------------------------|---|-------------------------|---------------|
|                                   |                                  |                           |   | 20°C, 100kHz            | -10°C, 100kHz |
| 10<br>(1A)                        | 56                               | 5×11                      | 250   | 0.40                    | 1.3           |
|                                   | 120                              | 6.3×11                    | 405   | 0.17                    | 0.53          |
|                                   | 330                              | 8×11.5                    | 760   | 0.094                   | 0.29          |
|                                   | 470                              | 8×16                      | 995   | 0.073                   | 0.23          |
|                                   | 680                              | 8×20                      | 1250  | 0.054                   | 0.17          |
|                                   | 470                              | 10×12.5                   | 1030  | 0.069                   | 0.21          |
|                                   | 680                              | 10×16                     | 1430  | 0.050                   | 0.16          |
|                                   | 1000                             | 10×20                     | 1500  | 0.030                   | 0.090         |
|                                   | 1200                             | 10×23                     | 1620  | 0.029                   | 0.086         |
|                                   | 1500                             | 12.5×20                   | 1720  | 0.028                   | 0.069         |
| 2200                              | 12.5×25                          | 1900                      | 0.024   | 0.059                   |               |
| 16<br>(1C)                        | 47                               | 5×11                      | 250   | 0.40                    | 1.3           |
|                                   | 100                              | 6.3×11                    | 405   | 0.17                    | 0.53          |
|                                   | 220                              | 8×11.5                    | 760   | 0.094                   | 0.29          |
|                                   | 330                              | 8×16                      | 995   | 0.073                   | 0.23          |
|                                   | 470                              | 8×20                      | 1250  | 0.054                   | 0.17          |
|                                   | 330                              | 10×12.5                   | 1030  | 0.069                   | 0.21          |
|                                   | 470                              | 10×16                     | 1430  | 0.050                   | 0.16          |
|                                   | 680                              | 10×20                     | 1500  | 0.030                   | 0.090         |
|                                   | 820                              | 10×23                     | 1620  | 0.029                   | 0.086         |
|                                   | 1000                             | 12.5×20                   | 1720  | 0.028                   | 0.069         |
| 1500                              | 12.5×25                          | 1900                      | 0.024   | 0.059                   |               |
| 25<br>(1E)                        | 33                               | 5×11                      | 250   | 0.40                    | 1.3           |
|                                   | 56                               | 6.3×11                    | 405   | 0.17                    | 0.53          |
|                                   | 150                              | 8×11.5                    | 760   | 0.094                   | 0.29          |
|                                   | 220                              | 8×16                      | 995   | 0.073                   | 0.23          |
|                                   | 270                              | 8×20                      | 1250  | 0.054                   | 0.17          |
|                                   | 220                              | 10×12.5                   | 1030  | 0.069                   | 0.21          |
|                                   | 330                              | 10×16                     | 1430  | 0.050                   | 0.16          |
|                                   | 470                              | 10×20                     | 1500  | 0.030                   | 0.090         |
|                                   | 560                              | 10×23                     | 1620  | 0.029                   | 0.086         |
|                                   | 680                              | 12.5×20                   | 1720  | 0.028                   | 0.069         |
| 1000                              | 12.5×25                          | 1900                      | 0.024   | 0.059                   |               |
| 35<br>(1V)                        | 22                               | 5×11                      | 250   | 0.40                    | 1.3           |
|                                   | 56                               | 6.3×11                    | 405   | 0.17                    | 0.53          |
|                                   | 100                              | 8×11.5                    | 760   | 0.094                   | 0.29          |
|                                   | 120                              | 8×16                      | 995   | 0.073                   | 0.23          |
|                                   | 180                              | 8×20                      | 1250  | 0.054                   | 0.17          |
|                                   | 150                              | 10×12.5                   | 1030  | 0.069                   | 0.21          |
|                                   | 220                              | 10×16                     | 1430  | 0.050                   | 0.16          |
|                                   | 270                              | 10×20                     | 1500  | 0.030                   | 0.090         |
|                                   | 330                              | 10×23                     | 1620  | 0.029                   | 0.086         |
|                                   | 470                              | 12.5×20                   | 1720  | 0.028                   | 0.069         |
| 560                               | 12.5×25                          | 1900                      | 0.024   | 0.059                   |               |