

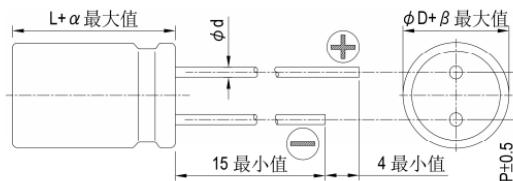
105°C 10000hours assured

■ 105°C 10000小时寿命保证

- Low ESR and High ripple current  
低等效串联电阻(ESR)并可承受高纹波电流
- RoHS compliance 符合RoHS指令


**Specifications 特性表**

| Items 项目  | Characteristics 主要特性   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|---|--|----------------------------|--|----------|---|------------|---|---------------------|----------------------------------|-----|-----|-----|-----|-----|-----|------------------|-----|-----|-----|-----|-----|-----|
| Operation Temperature Range 使用温度范围              | -55°C~105°C  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Voltage Range 额定电压范围                            | 16~80V   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Capacitance Range 额定容量范围                        | 22~470   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Capacitance Tolerance 额定容量容许误差值                 | ±20% at 120Hz, 20°C  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Dissipation Factor (Tanδ) 损失角                   | Standard Ratings 标准品一览表  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Leakage Current 漏电流                             | 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<br>I = 0.01CV或3(μA/微安)之中任一个较大值以下(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)   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Stability at Low Temperature (at 120Hz)<br>低温特性 | Impedance ratio shall not exceed the values given in the table below阻抗比不可大于下表所列数值<br><table border="1"> <thead> <tr> <th>Rated Voltge</th><th>16</th><th>25</th><th>35</th><th>50</th><th>63</th><th>80</th></tr> </thead> <tbody> <tr> <td>Impedance ratio Z(-25°C)/Z(20°C)</td><td>1.5</td><td>1.5</td><td>1.5</td><td>1.5</td><td>1.5</td><td>1.5</td></tr> <tr> <td>Z(-55°C)/Z(20°C)</td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td></tr> </tbody> </table>   | Rated Voltge               | 16                                     | 25       | 35  | 50         | 63  | 80                  | Impedance ratio Z(-25°C)/Z(20°C) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | Z(-55°C)/Z(20°C) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Rated Voltge                                    | 16   | 25                         | 35                                     | 50       | 63  | 80         |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Impedance ratio Z(-25°C)/Z(20°C)                | 1.5  | 1.5                        | 1.5                                    | 1.5      | 1.5   | 1.5        |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Z(-55°C)/Z(20°C)                                | 2.0  | 2.0                        | 2.0                                    | 2.0      | 2.0   | 2.0        |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Endurance 耐久性                                   | After 10000Hrs. Application of the rated voltage at 105 °C ,returned to 20 °C for testing, they meet the characteristics listed below.<br>在105°C 下连续施加额定电压10000小时后，返回20°C进行测试时，满足以下项目<br><table border="1"> <thead> <tr> <th>Capacitance Change 静电容量变化率</th><th>Within ±30% of initial value ≤初始值的±30%</th></tr> </thead> <tbody> <tr> <td>Tanδ 损失角</td><td>Less than 200% of specified value ≤初始值的200%</td></tr> <tr> <td>ESR 等效串联电阻</td><td>Less than 200% of specified value ≤初始值的200%</td></tr> <tr> <td>Leakage Current 漏电流</td><td>Within specified value ≤初始规格值</td></tr> </tbody> </table> | Capacitance Change 静电容量变化率 | Within ±30% of initial value ≤初始值的±30% | Tanδ 损失角 | Less than 200% of specified value ≤初始值的200% | ESR 等效串联电阻 | Less than 200% of specified value ≤初始值的200% | Leakage Current 漏电流 | Within specified value ≤初始规格值    |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Capacitance Change 静电容量变化率                      | Within ±30% of initial value ≤初始值的±30%   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Tanδ 损失角  | Less than 200% of specified value ≤初始值的200%  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| ESR 等效串联电阻                                      | Less than 200% of specified value ≤初始值的200%  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Leakage Current 漏电流                             | Within specified value ≤初始规格值  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Shelf Life Test 高温储存特性                          | After storage for 1000Hrs at 105°C with no voltage applied and then being stabilized at 20°C, capacitors shall meet the limits specified in Endurance. (With voltage treatment)<br>于 105°C环境中不供给额定电压 1000 小时后，待制品回复至 20°C 的环境中进行量测时，需满足同耐久性试验要求(可进行电压补偿后再行量测).   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Resistance to Soldering Heat 焊锡耐热性              | After reflow soldering and restored at room temperature, they meet the characteristics listed below.<br>经过回流焊并冷却至室温后，电容器的特性符合下表的要求。<br><table border="1"> <thead> <tr> <th>Capacitance Change 静电容量变化率</th><th>Within ±10% of initial value ≤初始值的±10%</th></tr> </thead> <tbody> <tr> <td>Tanδ 损失角</td><td>Less than 100% of specified value ≤初始值的100%</td></tr> <tr> <td>ESR 等效串联电阻</td><td>Less than 100% of specified value ≤初始值的100%</td></tr> <tr> <td>Leakage Current 漏电流</td><td>Within specified value ≤初始规格值</td></tr> </tbody> </table>   | Capacitance Change 静电容量变化率 | Within ±10% of initial value ≤初始值的±10% | Tanδ 损失角 | Less than 100% of specified value ≤初始值的100% | ESR 等效串联电阻 | Less than 100% of specified value ≤初始值的100% | Leakage Current 漏电流 | Within specified value ≤初始规格值    |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Capacitance Change 静电容量变化率                      | Within ±10% of initial value ≤初始值的±10%   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Tanδ 损失角  | Less than 100% of specified value ≤初始值的100%  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| ESR 等效串联电阻                                      | Less than 100% of specified value ≤初始值的100%  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Leakage Current 漏电流                             | Within specified value ≤初始规格值  |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Marking 标识                                      | Blue print on the case top. 铝壳顶部蓝色印刷   |                            |  |          |   |            |   |                     |                                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |

**■ DRAWING (Unit: mm) 外形图**

**□ DIMENSIONS (Unit:mm) 尺寸表**

单位: mm

| 尺寸  | 6.3X6 | 6.3X8 | 8X10 | 10X10 | 10X12 |
|-----|-------|-------|------|-------|-------|
| Φ D | 6.3   | 6.3   | 8    | 10    | 10    |
| L   | 6     | 8     | 10   | 10    | 12    |
| P   | 2.5   | 2.5   | 3.5  | 5.0   | 5.0   |
| Φ d | 0.45  | 0.45  | 0.60 | 0.60  | 0.60  |
| α   | 1.0   | 1.0   | 1.0  | 1.0   | 1.0   |
| β   | 0.5   | 0.5   | 0.5  | 0.5   | 0.5   |

## Specifications 标准品一览表

| Rated Volt.(V) | Surge Voltage(V) | Capacitance(μF) | Size Φ DXL (mm) | Tanδ 120Hz, 20°C | LC(μA) 2minutes | ESR (mΩ) 20°C 100KHZ | Rated R.C (mA/rms at 100KHz,105°C) |
|----------------|------------------|-----------------|-----------------|------------------|-----------------|----------------------|------------------------------------|
| 16V(1C)        | 18.4             | 82              | 6.3X6           | 0.16             | 13.1            | 50                   | 1,300                              |
|                |                  | 150             | 6.3X8           | 0.16             | 24              | 30                   | 2,000                              |
|                |                  | 270             | 8X10            | 0.16             | 43.2            | 27                   | 2,300                              |
|                |                  | 470             | 10X10           | 0.16             | 75.2            | 20                   | 2,500                              |
| 25V(1E)        | 28.8             | 47              | 6.3X6           | 0.14             | 11.8            | 50                   | 1,300                              |
|                |                  | 56              | 6.3X6           | 0.14             | 14              | 50                   | 1,300                              |
|                |                  | 68              | 6.3X8           | 0.14             | 17              | 30                   | 2,000                              |
|                |                  | 100             | 6.3X8           | 0.14             | 25              | 30                   | 2,000                              |
|                |                  | 150             | 8X10            | 0.14             | 37.5            | 27                   | 2,300                              |
|                |                  | 220             | 8X10            | 0.14             | 55              | 27                   | 2,300                              |
|                |                  | 330             | 10X10           | 0.14             | 82.5            | 20                   | 2,500                              |
|                |                  |                 | 10X12           | 0.14             | 82.5            | 16                   | 2,900                              |
| 35V(1V)        | 40.3             | 27              | 6.3X6           | 0.12             | 9.5             | 60                   | 1,300                              |
|                |                  | 33              | 6.3X6           | 0.12             | 11.6            | 60                   | 1,300                              |
|                |                  | 47              | 6.3X6           | 0.12             | 16.5            | 60                   | 1,300                              |
|                |                  | 68              | 6.3X8           | 0.12             | 23.8            | 35                   | 2,000                              |
|                |                  | 100             | 8X10            | 0.12             | 35              | 27                   | 2,300                              |
|                |                  | 150             | 8X10            | 0.12             | 52.5            | 27                   | 2,300                              |
|                |                  | 220             | 10X10           | 0.12             | 77              | 20                   | 2,500                              |
|                |                  | 270             | 10X10           | 0.12             | 94.5            | 20                   | 2,500                              |
| 50V(1H)        | 57.5             | 22              | 6.3X6           | 0.10             | 11              | 80                   | 1,100                              |
|                |                  | 33              | 6.3X8           | 0.10             | 16.5            | 40                   | 1,600                              |
|                |                  | 47              | 8X10            | 0.10             | 23.5            | 30                   | 1,800                              |
|                |                  | 68              | 8X10            | 0.12             | 34              | 30                   | 1,800                              |
|                |                  | 100             | 10X10           | 0.10             | 50              | 28                   | 2,000                              |
| 63V(1J)        | 72.5             | 10              | 6.3X5.8         | 0.08             | 6.3             | 120                  | 1,000                              |
|                |                  | 22              | 6.3X7.7         | 0.08             | 13.9            | 80                   | 1,500                              |
|                |                  | 27              | 8X10            | 0.08             | 17              | 40                   | 1,700                              |
|                |                  | 33              | 8X10            | 0.08             | 20.8            | 40                   | 1,700                              |
|                |                  | 47              | 8X10            | 0.08             | 29.6            | 40                   | 1,700                              |
|                |                  | 56              | 10X10           | 0.08             | 35.3            | 30                   | 1,800                              |
|                |                  | 68              | 10X10           | 0.08             | 42.8            | 30                   | 1,800                              |
|                |                  | 82              | 10X10           | 0.08             | 51.7            | 30                   | 1,800                              |
| 80V(1K)        | 92.0             | 22              | 8X10            | 0.08             | 17.6            | 45                   | 1,550                              |
|                |                  | 33              | 10X10           | 0.08             | 26.4            | 36                   | 1,700                              |
|                |                  | 47              | 10X10           | 0.08             | 37.6            | 36                   | 1,700                              |

•Case size Φ D XL(mm), ripple current (mA rms) at 105°C, 100KHz      •尺寸Φ D XL(mm), 纹波电流 (mA rms) 于105°C, 100KHz

### □ Ripple Current and Frequency Multipliers 纹波电流与频率补正系数

| Frequency 频率     | 120HZ | 1KHZ | 10KHZ | 100KHZ~ |
|------------------|-------|------|-------|---------|
| Multipliers 补正系数 | 0.10  | 0.30 | 0.60  | 1.00    |

Note: All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, please contact us immediately for technical assistance before purchase.

注：以上所提供的设计及特性参数谨供参考，任何修改不作预先通知。如果在使用上有疑问，请在采购前与我们联系，以便提供技术上的协助。