

TZV 系列  
SERIES

对应无铅焊接 105℃低阻抗品  
105℃ Low Impedance, Lead Free Reflow Soldering

◆ 特 长 / FEATURES

- 105℃、2000小时品。  
Load Life : 105℃ 2000 hours.
- 可以进行无铅回流焊接。  
Lead free reflow soldering is available.
- 适用于高密度贴片安装。  
Available for high density mounting.
- 高频阻抗规格设定。  
Prescribe Impedance value at 100 kHz.

- RoHS指令对应品。  
RoHS compliance.



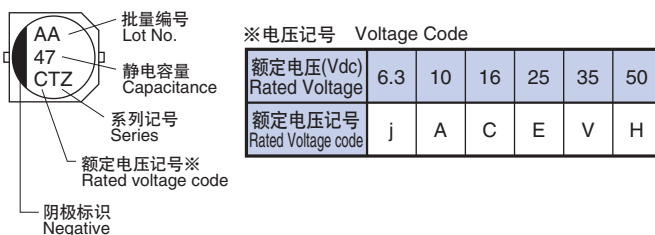
◆ 规格表 / SPECIFICATIONS

| 项 目 Items   | 特 性 Characteristics   |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
|---|---|-------------------------------|---|------------------------------|--|--------------------------|---|----|--------------|----------------|------|------|------|------|------|------|--|----------------|---|---|---|---|---|---|--|----------------|---|---|---|---|---|---|--|
| 工作温度范围<br>Category Temperature Range                                  | -55 ~ +105℃   |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 额定电压范围<br>Rated Voltage Range   | 6.3 ~ 50Vdc   |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 静电容量允许差<br>Capacitance Tolerance                                      | ±20% (20℃, 120Hz)   |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 漏 电 流<br>Leakage Current(MAX)   | 小于I=0.01CV和3μA中的较大值 (施加额定电压2分钟后)<br>I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage)<br>I=漏损电流 (μA)                      C=静电容量 (μF)                      V=额定电压 (Vdc)<br>Leakage Current                                  Capacitance                                  Rated Voltage   |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 损失角正切值 (tan δ)<br>Dissipation Factor(MAX)                             | <table border="1"> <tr> <td>额定电压 (Vdc)<br/>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(20℃, 120Hz)</td> </tr> <tr> <td>tan δ</td> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td></td> </tr> </table>   | 额定电压 (Vdc)<br>Rated Voltage   | 6.3   | 10                           | 16   | 25                       | 35  | 50 | (20℃, 120Hz) | tan δ          | 0.26 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 额定电压 (Vdc)<br>Rated Voltage   | 6.3   | 10                            | 16  | 25                           | 35   | 50                       | (20℃, 120Hz)                                |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| tan δ   | 0.26  | 0.19                          | 0.16  | 0.14                         | 0.12   | 0.10                     |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 耐 久 性<br>Endurance  | 在105℃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2000小时后, 满足以下各项要求。<br>After applying rated voltage with rated ripple current for 2000 hours at 105℃, the capacitors shall meet the following requirements. <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> </tr> <tr> <td>损失角正切值<br/>Dissipation Factor</td> <td>规格值的200%以下<br/>Not more than 200% of the specified value.</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> </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. | 损失角正切值<br>Dissipation Factor | 规格值的200%以下<br>Not more than 200% of the specified value. | 漏 电 流<br>Leakage Current | 规格值以下<br>Not more than the specified value. |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 静电容量变化率<br>Capacitance Change   | 初期值的±30%以内<br>Within ±30% of the initial value.   |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 损失角正切值<br>Dissipation Factor  | 规格值的200%以下<br>Not more than 200% of the specified value.  |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 漏 电 流<br>Leakage Current  | 规格值以下<br>Not more than the specified value.   |                               |   |                              |  |                          |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| 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 (Vdc)<br/>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25℃)/Z(20℃)</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td></td> </tr> <tr> <td>Z(-40℃)/Z(20℃)</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td></td> </tr> <tr> <td>Z(-55℃)/Z(20℃)</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td></td> </tr> </table>   | 额定电压 (Vdc)<br>Rated Voltage   | 6.3   | 10                           | 16   | 25                       | 35  | 50 | (120Hz)      | Z(-25℃)/Z(20℃) | 2    | 2    | 2    | 2    | 2    | 2    |  | Z(-40℃)/Z(20℃) | 3 | 3 | 3 | 3 | 3 | 3 |  | Z(-55℃)/Z(20℃) | 4 | 4 | 4 | 3 | 3 | 3 |  |
| 额定电压 (Vdc)<br>Rated Voltage   | 6.3   | 10                            | 16  | 25                           | 35   | 50                       | (120Hz)                                     |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| Z(-25℃)/Z(20℃)  | 2   | 2                             | 2   | 2                            | 2  | 2                        |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| Z(-40℃)/Z(20℃)  | 3   | 3                             | 3   | 3                            | 3  | 3                        |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |
| Z(-55℃)/Z(20℃)  | 4   | 4                             | 4   | 3                            | 3  | 3                        |   |    |              |                |      |      |      |      |      |      |  |                |   |   |   |   |   |   |  |                |   |   |   |   |   |   |  |

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

| 频率 (Hz)<br>Frequency |            | 120  | 1k   | 10k  | 100k≤ |
|----------------------|------------|------|------|------|-------|
| 系 数<br>Coefficient   | 4.7μF      | 0.30 | 0.60 | 0.80 | 1.00  |
|                      | 10~47μF    | 0.32 | 0.75 | 0.90 | 1.00  |
|                      | 100μF      | 0.50 | 0.80 | 0.95 | 1.00  |
|                      | 220~1000μF | 0.60 | 0.85 | 0.95 | 1.00  |

◆ 标 识 / MARKING

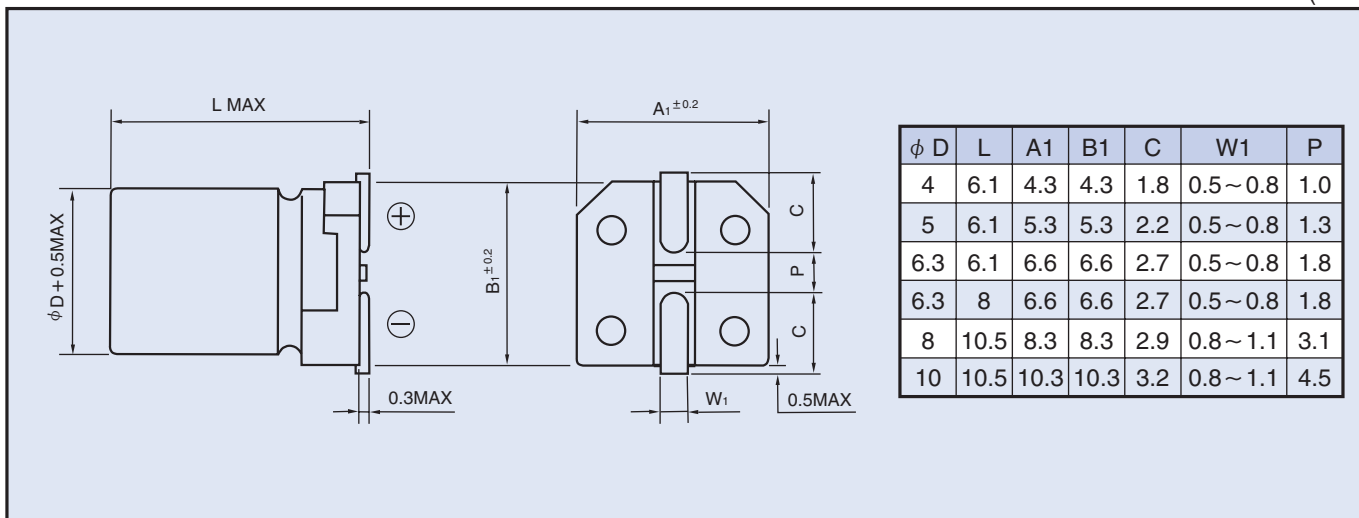


◆ 产品型号体系 / PART NUMBER

|                       |                |                     |                                  |               |                   |
|-----------------------|----------------|---------------------|----------------------------------|---------------|-------------------|
| □□□                   | TZV            | □□□□□               | M                                | □□□           | D×L               |
| 额定电压<br>Rated Voltage | 系列名称<br>Series | 静电容量<br>Capacitance | 静电容量允许差<br>Capacitance Tolerance | 副记号<br>Option | 铝壳尺寸<br>Case Size |

◆尺寸图 / DIMENSIONS

(mm)



◆标准品一览表 / STANDARD SIZE

Size φ D × L (mm), Rated Ripple Current (mA r.m.s./105°C, 100kHz), Impedance (Ω MAX/20°C, 100kHz)

| Vdc  | Cap (μF)  | Size (φDXL) | Ripple    | Impedance | Vdc  | Cap (μF)  | Size (φDXL) | Ripple    | Impedance |
|------|-----------|-------------|-----------|-----------|------|-----------|-------------|-----------|-----------|
| 6.3  | 22        | 4 × 6.1     | 90        | 1.35      | 25   | 33        | 5 × 6.1     | 170       | 0.70      |
|      | 47        | 4 × 6.1     | 90        | 1.35      |      |           | 6.3 × 6.1   | 250       | 0.36      |
|      |           | 100         | 5 × 6.1   | 170       |      | 0.70      | 47          | 6.3 × 6.1 | 250       |
|      | 220       |             | 5 × 6.1   | 170       |      | 0.70      | 100         | 6.3 × 8   | 300       |
|      |           | 330         | 6.3 × 6.1 | 250       |      | 0.36      | 220         | 8 × 10.5  | 600       |
|      | 1000      |             | 6.3 × 6.1 | 250       |      | 0.36      | 330         | 8 × 10.5  | 600       |
|      |           | 330         | 6.3 × 8   | 300       |      | 0.34      | 470         | 10 × 10.5 | 850       |
|      | 10        |             | 33        | 4 × 6.1   |      | 90        | 1.35        | 35        | 4.7       |
| 220  |           | 6.3 × 8     | 300       | 0.34      | 10   | 4 × 6.1   | 90          |           | 1.45      |
|      |           | 470         | 8 × 10.5  | 600       |      | 0.16      | 5 × 6.1     |           | 170       |
| 680  |           |             | 8 × 10.5  | 600       | 0.16 | 22        | 5 × 6.1     |           | 170       |
|      |           | 1000        | 10 × 10.5 | 850       | 0.08 |           | 6.3 × 6.1   |           | 250       |
| 16   | 10        | 4 × 6.1     | 90        | 1.35      | 47   | 6.3 × 6.1 | 250         |           | 0.36      |
|      |           | 22          | 4 × 6.1   | 90        |      | 1.35      | 6.3 × 8     |           | 300       |
|      | 33        |             | 5 × 6.1   | 170       | 0.70 | 100       | 6.3 × 8     |           | 300       |
|      |           | 47          | 5 × 6.1   | 170       | 0.70 |           | 8 × 10.5    |           | 600       |
|      | 100       |             | 6.3 × 6.1 | 250       | 0.36 | 220       | 8 × 10.5    |           | 600       |
|      |           | 220         | 6.3 × 6.1 | 250       | 0.36 | 330       | 10 × 10.5   | 850       | 0.09      |
|      | 330       |             | 6.3 × 8   | 300       | 0.34 | 50        | 4.7         | 4 × 6.1   | 60        |
|      |           | 470         | 8 × 10.5  | 600       | 0.16 |           | 10          | 5 × 6.1   | 85        |
|      | 680       |             | 8 × 10.5  | 600       | 0.16 |           |             | 6.3 × 6.1 | 165       |
|      |           | 1000        | 10 × 10.5 | 850       | 0.08 |           | 22          | 6.3 × 6.1 | 165       |
| 1000 | 10 × 10.5 |             | 850       | 0.08      | 33   |           | 6.3 × 8     | 195       | 0.68      |
|      | 1000      | 10 × 10.5   | 850       | 0.08      | 47   |           | 6.3 × 8     | 195       | 0.68      |
| 1000 |           | 10 × 10.5   | 850       | 0.08      | 100  |           | 8 × 10.5    | 350       | 0.34      |
|      | 1000      | 10 × 10.5   | 850       | 0.08      | 220  |           | 10 × 10.5   | 670       | 0.18      |