

## 特点 Features

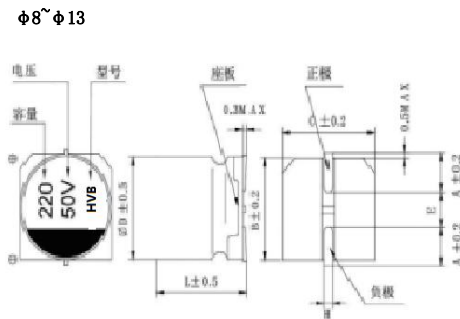
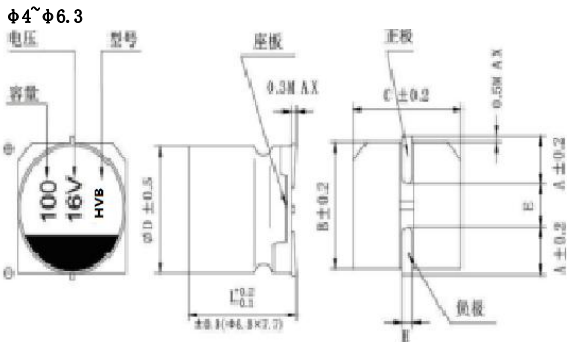
- 低 阻 抗。Low impedance.
- 适用于再流焊。Reflow soldering is available.
- 适用于高密度表面组装。available for high density surface mounting.
- 工作温度范围宽 (-55℃~+105℃) Operating over wide temperature range.
- RoHS指令(2002/95/EC)已对应完毕。Adapted to the RoHS directive(2002/95/EC).



## 主要技术性能 Specifications

| 项目Items                                                             | 特性Performance Characteristics                                                                                                                                                                                                                            |      |      |                                                                 |      |      |      |      |      |      |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------|------|------|------|------|------|------|
| 工作温度范围<br>Operating Temperature Range                               | -55℃~+105℃                                                                                                                                                                                                                                               |      |      |                                                                 |      |      |      |      |      |      |
| 额定电压范围<br>Rated Voltage Range                                       | 6.3V~100V                                                                                                                                                                                                                                                |      |      |                                                                 |      |      |      |      |      |      |
| 标称电容量<br>Nominal Capacitance                                        | 4.7~2200 μF                                                                                                                                                                                                                                              |      |      |                                                                 |      |      |      |      |      |      |
| 标称电容量允许偏差<br>Capacitance Tolerance                                  | ±20%(20℃, 120Hz)                                                                                                                                                                                                                                         |      |      |                                                                 |      |      |      |      |      |      |
| 漏电流<br>Leakage Current                                              | I≤0.01CRVR or 3(μA), 取较大者(2分钟)CR: 标称电容量(μF) UR: 额定电压(V)<br>I≤0.01CRVR or 3(μA) Whichever is greater(at 20℃, after 2 minutes)<br>CR: Nominal Capacitance (μF) UR: Rated voltages (V)                                                                      |      |      |                                                                 |      |      |      |      |      |      |
| 损耗角正切(tg δ)<br>Dissipation Factor (Max)<br>20℃, 120Hz               | U <sub>a</sub> (M)                                                                                                                                                                                                                                       | 6.3  | 10   | 16                                                              | 25   | 35   | 50   | 63   | 80   | 100  |
|                                                                     | tg δ                                                                                                                                                                                                                                                     | 0.26 | 0.20 | 0.16                                                            | 0.14 | 0.12 | 0.12 | 0.10 | 0.08 | 0.07 |
| 耐久性<br>Load Life                                                    | +105℃施加额定电压2000小时后, 电容器应满足以下要求<br>After 2000 hours application of rated voltage at 105℃, the capacitor shall meet the following requirement:                                                                                                             |      |      |                                                                 |      |      |      |      |      |      |
|                                                                     | 电容量变化率<br>Capacitance Change                                                                                                                                                                                                                             |      |      | ±30%初始值以内<br>Within ±30% of the initial value                   |      |      |      |      |      |      |
|                                                                     | 损耗角正切<br>Dissipation Factor                                                                                                                                                                                                                              |      |      | ≤300%初始规定值<br>Not more than 300% of the initial specified value |      |      |      |      |      |      |
|                                                                     | 漏电流<br>Leakage Current                                                                                                                                                                                                                                   |      |      | ≤初始规定值<br>Not more than the initial specified value             |      |      |      |      |      |      |
| 高温贮存<br>Shelf Life                                                  | +105℃贮存1000小时后, 电容器应满足以上耐久性要求<br>After storage for 1000 hours at +105℃, the capacitors shall meet the requirement of load life above                                                                                                                     |      |      |                                                                 |      |      |      |      |      |      |
| 低温特性<br>Low Temperature Stability<br>阻抗比<br>Impedance Ratio (120Hz) | U (V)                                                                                                                                                                                                                                                    | 6.3  | 10   | 16                                                              | 25   | 35   | 50   | 63   | 80   | 100  |
|                                                                     | Z(-25℃)/Z(+20℃)                                                                                                                                                                                                                                          | 4    | 3    | 2                                                               | 2    | 2    | 2    | 2    | 2    | 2    |
|                                                                     | Z(-55℃)/Z(+20℃)                                                                                                                                                                                                                                          | 8    | 5    | 4                                                               | 3    | 3    | 3    | 3    | 3    | 3    |
| 耐焊接热<br>Resistance to Soldering Heat                                | 在250℃的条件下, 电容器在热板上保持30秒, 然后从热板上取出电容器, 让其在室温下恢复, 电容器应满足以下要求:<br>The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement. |      |      |                                                                 |      |      |      |      |      |      |
|                                                                     | 电容量变化率<br>Capacitance Change                                                                                                                                                                                                                             |      |      | ±10%初始值以内<br>Within±10% of the initial value                    |      |      |      |      |      |      |
|                                                                     | 损耗角正切<br>Dissipation Factor                                                                                                                                                                                                                              |      |      | ≤初始规定值<br>Not more than the initial specified value             |      |      |      |      |      |      |
|                                                                     | 漏电流<br>Leakage Current                                                                                                                                                                                                                                   |      |      | ≤初始规定值<br>Not more than the initial specified value             |      |      |      |      |      |      |

外形图及尺寸表 Case Size Table



单位 Unit:mm

|   | 4×5.4   | 5×5.4 | 6.3×5.4 | 6.3×7.7 | 8×10.5  | 10×10.5 | 10×13 | 13×13.5 |
|---|---------|-------|---------|---------|---------|---------|-------|---------|
| A | 1.35    | 2.1   | 2.4     | 2.4     | 2.9     | 3.2     | 3.2   | 4.7     |
| B | 4.3     | 5.3   | 6.6     | 6.6     | 8.3     | 10.3    | 10.3  | 13      |
| C | 4.3     | 5.3   | 6.6     | 6.6     | 8.3     | 10.3    | 10.3  | 13      |
| E | 1.0     | 1.3   | 2.2     | 2.2     | 3.1     | 4.5     | 4.5   | 4.5     |
| L | 5.4     | 5.4   | 5.4     | 7.7     | 10.5    | 10.5    | 12.5  | 13.5    |
| H | 0.5~0.8 |       |         |         | 0.8~1.1 |         |       |         |

标称电容量、额定电压、额定纹波电流与尺寸对应表  
Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

| 电压WV<br>(Vdc) | 容量Cap<br>(μF) | 产品尺寸<br>Size | 纹波电流mArms<br>100KHz/105℃ | 阻抗Impedance(Ω)<br>100KHz/25℃ | 电压WV<br>(Vdc) | 容量Cap<br>(μF) | 产品尺寸<br>Size | 纹波电流mArms<br>100KHz/105℃ | 阻抗Impedance(Ω)<br>100KHz/25℃ |
|---------------|---------------|--------------|--------------------------|------------------------------|---------------|---------------|--------------|--------------------------|------------------------------|
| 6.3           | 22            | 4×5.4        | 80                       | 1.8                          | 35            | 10            | 5x5.4        | 150                      | 0.76                         |
|               | 100           | 5×5.4        | 150                      | 0.76                         |               | 22            | 6.3×5.4      | 230                      | 0.44                         |
|               | 220           | 6.3×5.4      | 230                      | 0.44                         |               | 47            | 6.3×7.7      | 280                      | 0.34                         |
|               | 330           | 6.3×7.7      | 280                      | 0.34                         |               | 100           | 8×10.5       | 600                      | 0.17                         |
|               | 470           | 8x10.5       | 600                      | 0.17                         |               | 220           | 10×10.5      | 850                      | 0.09                         |
|               | 1000          | 10×10.5      | 850                      | 0.09                         |               | 470           | 10×13        | 1000                     | 0.075                        |
|               | 1500          | 10×13        | 1000                     | 0.075                        | 50            | 330           | 13×13.5      | 1190                     | 0.06                         |
| 10            | 2200          | 13×13.5      | 1190                     | 0.06                         |               | 4.7           | 4×5.4        | 30                       | 5                            |
|               | 22            | 4×5.4        | 80                       | 1.8                          |               | 10            | 5×5.4        | 85                       | 1.52                         |
|               | 47            | 5×5.4        | 150                      | 0.76                         |               | 22            | 6.3x5.4      | 165                      | 0.88                         |
|               | 100           | 6.3×5.4      | 230                      | 0.44                         |               | 47            | 6.3×7.7      | 185                      | 0.68                         |
|               | 220           | 6.3×7.7      | 280                      | 0.34                         |               | 100           | 8×10.5       | 300                      | 0.34                         |
|               | 470           | 8×10.5       | 600                      | 0.17                         |               | 220           | 10×10.5      | 670                      | 0.18                         |
| 16            | 1000          | 10×10.5      | 850                      | 0.09                         |               | 330           | 13×13.5      | 650                      | 0.12                         |
|               | 1500          | 13×13.5      | 1190                     | 0.06                         | 63            | 4.7           | 5×5.4        | 50                       | 3                            |
|               | 10            | 4×5.4        | 80                       | 1.8                          |               | 10            | 6.3×5.4      | 80                       | 1.75                         |
|               | 22            | 5×5.4        | 150                      | 0.76                         |               | 22            | 6.3×7.7      | 120                      | 1.2                          |
|               | 100           | 6.3×5.4      | 230                      | 0.44                         |               | 47            | 8×10.5       | 250                      | 0.65                         |
|               | 220           | 6.3×7.7      | 280                      | 0.34                         |               | 100           | 10×10.5      | 400                      | 0.35                         |
|               | 330           | 8×10.5       | 600                      | 0.17                         |               | 220           | 13×13.5      | 720                      | 0.15                         |
| 25            | 470           | 10×10.5      | 850                      | 0.09                         | 80            | 10            | 6.3×7.7      | 60                       | 2.4                          |
|               | 1000          | 13×13.5      | 1190                     | 0.06                         |               | 22            | 8×10.5       | 130                      | 1.3                          |
|               | 10            | 4×5.4        | 80                       | 1.8                          |               | 47            | 10×10.5      | 200                      | 0.7                          |
|               | 22            | 5×5.4        | 150                      | 0.76                         |               | 220           | 13×13.5      | 470                      | 0.32                         |
|               | 47            | 6.3×5.4      | 240                      | 0.44                         | 100           | 10            | 6.3×7.7      | 60                       | 2.4                          |
|               | 100           | 6.3×7.7      | 280                      | 0.34                         |               | 22            | 8×10.5       | 130                      | 1.3                          |
|               | 220           | 8×10.5       | 600                      | 0.17                         |               | 47            | 10×10.5      | 200                      | 0.7                          |
|               | 470           | 10×10.5      | 850                      | 0.09                         |               | 100           | 13×13.5      | 460                      | 0.45                         |
|               | 560           | 10×13        | 1000                     | 0.075                        |               |               |              |                          |                              |
|               | 680           | 13×13.5      | 1190                     | 0.06                         |               |               |              |                          |                              |

频率修正系数 Frequency Coefficient

| Frequency频率   | 50Hz | 120Hz | 300Hz | 1KHz | ≥ 10KHz |
|---------------|------|-------|-------|------|---------|
| Coefficient系数 | 0.35 | 0.50  | 0.64  | 0.83 | 1.00    |