



VE 系列

特长 / 用途

- 3φ ~ 18φ、85℃、2,000小时寿命保证
- 贴片型大额定静电容量电容器
- 适用表面黏着之高密度PCB设计
- 符合RoHS指令



标示颜色: 黑色

规格表

| 项目 | 性能 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|-----------|------|------|------|------|------|------|------|-----------|-----------|-----------|-----|----|----|----|----|----|----|-----|-----------|-----------|---------|------|------|------|------|------|------|------|------|------|---|---|------------|---|------|------|------|------|------|------|------|------|------|------|
| 工作温度范围 | -40℃ ~ +85℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 额定静电容量容许误差值 | ± 20% (120Hz, 20℃) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏电流(20℃) | 额定电压 | 6.3 ~ 100V 160 ~ 450V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 测试时间 | 2 分钟后 5 分钟后 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 制品尺寸 | 3 ~ 10φ 12.5 ~ 18φ 12.5 ~ 18φ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 漏电流 | I = 0.01CV 或 3μA 中的任一个较大值以下 I = 0.03CV 或 4μA 中的任一个较大值以下 I = 0.04CV + 100μA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 损失角正切值(120Hz, 20℃) | <table border="1"> <thead> <tr> <th>额定电压</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160 ~ 250</th> <th>400 ~ 450</th> </tr> </thead> <tbody> <tr> <td>3 ~ 10φ</td> <td>0.42</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> <td>-</td> <td>-</td> </tr> <tr> <td>12.5 ~ 18φ</td> <td>-</td> <td>0.38</td> <td>0.34</td> <td>0.30</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.14</td> <td>0.10</td> <td>0.20</td> <td>0.25</td> </tr> </tbody> </table> | | | | | | | | | | | 额定电压 | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 ~ 250 | 400 ~ 450 | 3 ~ 10φ | 0.42 | 0.28 | 0.24 | 0.20 | 0.14 | 0.12 | 0.10 | 0.10 | 0.10 | - | - | 12.5 ~ 18φ | - | 0.38 | 0.34 | 0.30 | 0.26 | 0.22 | 0.18 | 0.14 | 0.10 | 0.20 | 0.25 |
| | 额定电压 | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 ~ 250 | 400 ~ 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 ~ 10φ | 0.42 | 0.28 | 0.24 | 0.20 | 0.14 | 0.12 | 0.10 | 0.10 | 0.10 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.5 ~ 18φ | - | 0.38 | 0.34 | 0.30 | 0.26 | 0.22 | 0.18 | 0.14 | 0.10 | 0.20 | 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 当额定静电容量大于 1,000 微法拉时, 每增加 1,000 微法拉需加 0.02。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 温度特性(120Hz) | 阻抗比不可大于下表所列数值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 额定电压 | | 4.0 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 ~ 250 | 400 ~ 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 阻抗比 | Z(-25℃) | φD < 12.5 | 7 | 4 | 4 | 3 | 2 | 2 | 2 | 2 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | /Z(+20℃) | φD ≧ 12.5 | - | 5 | 5 | 4 | 2 | 2 | 2 | 2 | 3 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-40℃) | | φD < 12.5 | 15 | 8 | 5 | 4 | 3 | 3 | 3 | 3 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| /Z(+20℃) | | φD ≧ 12.5 | - | 14 | 12 | 10 | 5 | 4 | 3 | 3 | 3 | 6 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 耐久性 | 保证寿命时间 | 2,000 小时 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 静电容量变化率 | ≧ 初始值的 ± 20%(4V: ± 30%) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 损失角正切值 | ≧ 初始规格值的 200%(4V: < 300%) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 漏电流 | ≧ 初始规格值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * 于 85℃ 环境中供给额定电压 2,000 小时后, 待制品回复至 20℃ 的环境中进行量测时, 需满足上列要求。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 高温无负荷特性 | 保证寿命时间: 1,000 小时; 其它项目同耐久性试验 额定电压 160 ~ 450V 需进行电压补偿后再行量测(依据 JIS C 5101-4 4.1 规定)。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 纹波电流与频率修正系数 | 频率(Hz) | | 50 | 120 | 1k | 10k≤ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 静电容量(μF/微法拉) | | ≧ 1,000 | 0.80 | 1.00 | 1.25 | 1.40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1,000 < 静电容量 ≤ 10,000 | 0.85 | 1.00 | 1.15 | 1.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

贴片型

寸法图

图 1

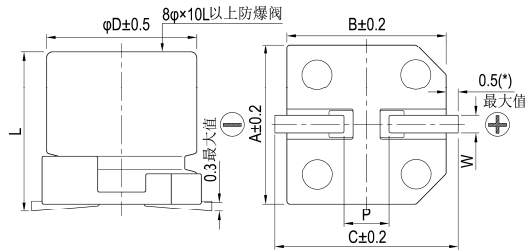
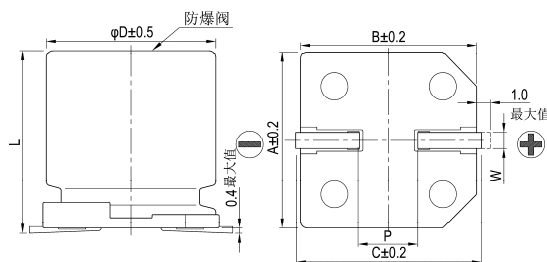


图 2



制品各项寸法

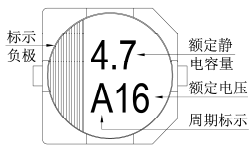
单位: 毫米

| φD | L | A | B | C | W | P ± 0.2 | 图号 |
|------|------------|------|------|------|-------------|---------|----|
| 3 | 5.3 ± 0.2 | 3.3 | 3.3 | 4.1 | 0.45 ~ 0.75 | 0.8 | 1 |
| 4 | 5.3 ± 0.2 | 4.3 | 4.3 | 5.1 | 0.5 ~ 0.8 | 1.0 | 1 |
| 5 | 5.3 ± 0.2 | 5.3 | 5.3 | 5.9 | 0.5 ~ 0.8 | 1.5 | 1 |
| 6.3 | 5.3 ± 0.2 | 6.6 | 6.6 | 7.2 | 0.5 ~ 0.8 | 2.0 | 1 |
| 6.3 | 7.7 ± 0.3 | 6.6 | 6.6 | 7.2 | 0.5 ~ 0.8 | 2.0 | 1 |
| 8 | 6.5 ± 0.3 | 8.3 | 8.3 | 9.0 | 0.5 ~ 0.8 | 2.3 | 1 |
| 8 | 10 ± 0.5 | 8.3 | 8.3 | 9.0 | 0.7 ~ 1.1 | 3.1 | 1 |
| 10 | 7.7 ± 0.3 | 10.3 | 10.3 | 11.0 | 0.7 ~ 1.3 | 4.7 | 1 |
| 10 | 10 ± 0.5 | 10.3 | 10.3 | 11.0 | 0.7 ~ 1.3 | 4.7 | 1 |
| 12.5 | 13.5 ± 0.5 | 13.0 | 13.0 | 13.7 | 1.1 ~ 1.4 | 4.4 | 2 |
| 12.5 | 16 ± 0.5 | 13.0 | 13.0 | 13.7 | 1.1 ~ 1.4 | 4.4 | 2 |
| 16 | 16.5 ± 0.5 | 17.0 | 17.0 | 18.0 | 1.1 ~ 1.4 | 6.4 | 2 |
| 16 | 21.5 ± 0.5 | 17.0 | 17.0 | 18.0 | 1.1 ~ 1.4 | 6.4 | 2 |
| 18 | 16.5 ± 0.5 | 19.0 | 19.0 | 20.0 | 1.1 ~ 1.4 | 6.4 | 2 |
| 18 | 21.5 ± 0.5 | 19.0 | 19.0 | 20.0 | 1.1 ~ 1.4 | 6.4 | 2 |

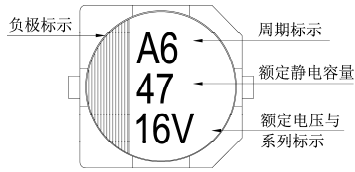
(*): 3 ~ 6.3φ 最大值为0.4

标示

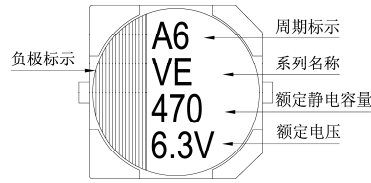
φD = 3 mm



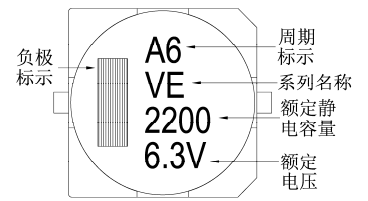
φD = 4 ~ 6.3 mm



φD = 8 ~ 10 mm



φD ≥ 12.5 mm



尺寸：直径(φD)×长度(L)，(毫米/mm)

容许纹波电流：毫安/均方根值(mA/rms)，120 赫兹(Hz)，85°C

制品尺寸与容许纹波电流一览表

| 额定电压 V _{DC} | 4V(0G) | | 6.3V(0J) | | 10V(1A) | | 16V(1C) | | 25V(1E) | | 35V(1V) | | 50V(1H) | | 63(1J) | | |
|----------------------|--------|--------------------|-----------|--------------------|----------------|--------------------------|-------------------|-----------------------------|------------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|------------------|----------|
| | 内容 | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA |
| 1 | 010 | | | | | | | | | | | | | | | | |
| 2.2 | 2R2 | | | | | | | | | | | | | 4x5.3 | 10 | 4x5.3 | 8 |
| 3.3 | 3R3 | | | | | | | | | 3x5.3 | 14 | 3x5.3 | 14 | 4x5.3 | 17 | 5x5.3 | 22 |
| 4.7 | 4R7 | | | | | 3x5.3 | 14 | 3x5.3 | 14 | 4x5.3 | 26 | 4x5.3 | 26 | 4x5.3 | 20 | 5x5.3 | 25 |
| 10 | 100 | | | 3x5.3 | 16 | 4x5.3 | 26 | 4x5.3 | 26 | 5x5.3 | 44 | 5x5.3 | 44 | 5x5.3 | 35 | 6.3x5.3 8x6.5 | 40 46 |
| 22 | 220 | 3x5.3 | 16 | 4x5.3 | 26 | 5x5.3 | 44 | 4x5.3 5x5.3 | 30 44 | 5x5.3 6.3x5.3 | 47 59 | 5x5.3 6.3x5.3 | 47 59 | 6.3x5.3 6.3x7.7 | 50 65 | 8x10 | 139 |
| 33 | 330 | 4x5.3 | 31 | 4x5.3 | 31 | 4x5.3 5x5.3 | 31 55 | 5x5.3 | 55 | 5x5.3 6.3x5.3 | 55 67 | 6.3x5.3 6.3x7.7 | 67 85 | 6.3x7.7 8x6.5 | 75 95 | 8x10 | 139 |
| 47 | 470 | 4x5.3 | 34 | 4x5.3 5x5.3 | 34 55 | 6.3x5.3 | 75 | 5x5.3 6.3x5.3 | 55 75 | 6.3x5.3 6.3x7.7 | 75 98 | 6.3x7.7 8x6.5 | 98 105 | 6.3x7.7 8x10 | 75 190 | 10x10 | 200 |
| 68 | 680 | 5x5.3 | 58 | 5x5.3 6.3x5.3 | 58 89 | 5x5.3 6.3x5.3 | 58 89 | 6.3x5.3 | 89 | 6.3x7.7 | 109 | 6.3x7.7 | 109 | 8x10 | 190 | 10x10 | 226 |
| 100 | 101 | 5x5.3 6.3x5.3 | 58 89 | 6.3x5.3 | 89 | 6.3x5.3 6.3x7.7 | 89 109 | 6.3x5.3 6.3x7.7 8x6.5 | 89 109 125 | 6.3x7.7 8x6.5 | 109 145 | 8x10 | 252 | 8x10 | 190 | 10x10 | 226 |
| 150 | 151 | | | | | | | | | | | 10x7.7 | 252 | | | | |
| 220 | 221 | 6.3x5.3 6.3x7.7 | 89 124 | 6.3x5.3 6.3x7.7 | 89 124 | 6.3x7.7 8x6.5 8x10 | 124 175 270 | 6.3x7.7 8x10 | 124 270 | 8x10 10x7.7 | 270 270 | 8x10 10x10 | 270 370 | 10x10 | 320 | 12.5x13.5 | 500 |
| 330 | 331 | 6.3x7.7 | 124 | 6.3x7.7 8x6.5 | 124 190 | 8x10 | 290 | 8x10 10x7.7 | 290 290 | 10x10 | 400 | 10x10 | 400 | 12.5x13.5 | 600 | 12.5x16 | 600 |
| 470 | 471 | 8x10 | 290 | 8x10 | 290 | 10x7.7 10x10 | 290 400 | 10x10 | 400 | 10x10 | 400 | 12.5x13.5 | 680 | 12.5x16 | 740 | 16x16.5 | 850 |
| 680 | 681 | | | 10x7.7 | 290 | 10x10 | 410 | 10x10 | 410 | 12.5x13.5 | 680 | 12.5x13.5 | 680 | 16x16.5 | 1,000 | 18x16.5 | 1,100 |
| 1,000 | 102 | | | 10x10 | 430 | 10x10 | 430 | 12.5x13.5 | 750 | 12.5x13.5 | 750 | 16x16.5 | 1,100 | 18x16.5 16x21.5 | 1,350 1,400 | | |
| 2,200 | 222 | | | 12.5x13.5 | 890 | 12.5x13.5 | 890 | 16x16.5 | 1,100 | 16x16.5 | 1,100 | 18x16.5 16x21.5 | 1,450 1,500 | | | | |
| 3,300 | 332 | | | 12.5x16 | 1,000 | 16x16.5 | 1,300 | 16x16.5 | 1,300 | 18x16.5 16x21.5 | 1,450 1,500 | 18x21.5 | 1,750 | | | | |
| 4,700 | 472 | | | 16x16.5 | 1,400 | 16x16.5 | 1,400 | 18x16.5 16x21.5 | 1,600 1,650 | 18x21.5 | 1,750 | | | | | | |
| 6,800 | 682 | | | 18x16.5 16x21.5 | 1,700 1,750 | 18x16.5 16x21.5 | 1,700 1,750 | 18x21.5 | 2,000 | | | | | | | | |
| 10,000 | 103 | | | 18x21.5 | 2,000 | 18x21.5 | 2,000 | | | | | | | | | | |

| 额定电压 V _{DC} | 100V(2A) | | 160V(2C) | | 200V(2D) | | 250V(2E) | | 400V(2G) | | 450V(2W) | | |
|----------------------|----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|---------|-----------|---------|-----|
| 内容 | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | |
| 4.7 | 4R7 | | | | | | | | 12.5x13.5 | 120 | 12.5x13.5 | 120 | |
| 10 | 100 | 8x10 | 90 | | | | 12.5x13.5 | 150 | 12.5x13.5 | 120 | 12.5x16 | 130 | |
| 22 | 220 | 8x10 | 90 | | | 12.5x13.5 | 240 | 12.5x13.5 | 150 | 16x16.5 | 140 | 16x16.5 | 140 |
| 33 | 330 | 10x10 | 120 | 12.5x13.5 | 290 | 12.5x16 | 310 | 12.5x16 | 240 | 16x16.5 | 140 | 18x16.5 | 180 |
| 47 | 470 | 10x10 | 120 | 12.5x16 | 370 | 16x16.5 | 420 | 16x16.5 | 340 | 18x16.5 | 280 | 18x21.5 | 250 |
| 68 | 680 | 12.5x13.5 | 380 | 16x16.5 | 500 | 16x16.5 | 420 | 18x16.5 16x21.5 | 440 450 | 18x21.5 | 350 | | |
| 100 | 101 | 12.5x13.5 | 440 | 18x16.5 16x21.5 | 650 690 | 18x16.5 16x21.5 | 550 590 | 18x21.5 | 490 | | | | |
| 220 | 221 | 16x16.5 | 600 | | | | | | | | | | |
| 330 | 331 | 18x16.5 16x21.5 | 780 850 | | | | | | | | | | |

产品编码说明

VE系列 470微法拉 ±20% 6.3V 编带 8φ×10L 无铅引线与PET镀膜铝壳

VE- **471** **M** **0J** **TR** - **0810**

系列名 额定静电容量 额定静电容量容许误差值 额定电压 包装型式 端子型式 制品尺寸 制品引线及铝壳镀膜材质

注：如需了解更详细介绍，请参阅目录第15页“贴片型产品编码说明”。

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