

## HBW系列

特长 / 用途

- 125℃、4,000小时寿命保证
- 低等效串联电阻(ESR)并可承受高纹波电流
- 符合RoHS指令
- 符合AEC-Q200指令

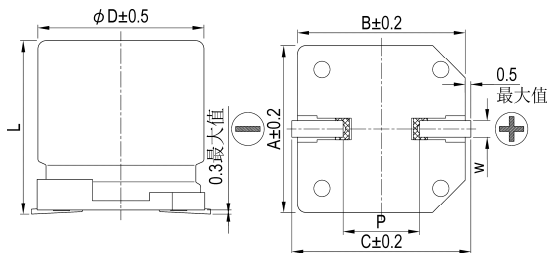


标示颜色: 深绿色

### 规格表

| 项目                           | 性能   |               |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|------------------------------|--|---------------|---------------|-----------------|------------------|-----|----|----|-----------------|-----|-----|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|-----|
| 工作温度范围                       | -55℃ ~ +125℃   |               |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 额定静电容量容许误差值                  | ± 20% (120 Hz, 20℃)  |               |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 漏电流(20℃)                     | 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)  |               |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 损失角正切值(120 Hz, 20℃)          | 参阅标准品一览表   |               |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 温度特性(100k Hz)                | 阻抗比不可大于下表所列数值  |               |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | <table border="1"> <thead> <tr> <th>额定电压</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> </tr> </thead> <tbody> <tr> <td>Z(-25℃)/Z(+20℃)</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℃)/Z(+20℃)</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> | 额定电压          | 16            | 25              | 35               | 50  | 63 | 80 | Z(-25℃)/Z(+20℃) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | Z(-55℃)/Z(+20℃) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 额定电压                         | 16   | 25            | 35            | 50              | 63               | 80  |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| Z(-25℃)/Z(+20℃)              | 1.5  | 1.5           | 1.5           | 1.5             | 1.5              | 1.5 |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| Z(-55℃)/Z(+20℃)              | 2.0  | 2.0           | 2.0           | 2.0             | 2.0              | 2.0 |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 耐久性                          | 保证寿命时间   | 4,000 小时      |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 静电容量变化率  | ≦ 初始值的± 30%   |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 损失角正切值   | ≦ 初始规格值的 200% |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 等效串联电阻(ESR)  | ≦ 初始规格值的 200% |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 漏电流  | ≦ 初始规格值       |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 高温无负荷特性                      | * 于 125℃ 环境中不供给额定电压 1,000 小时后, 待制品回复至 20℃ 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)。  |               |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 焊锡耐热性*<br>(请参照第 15 页贴片型焊接条件) | 静电容量变化率  | ≦ 初始值的± 10%   |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 损失角正切值   | ≦ 初始规格值       |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 等效串联电阻(ESR)  | ≦ 初始规格值       |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 漏电流  | ≦ 初始规格值       |               |                 |                  |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
| 纹波电流与频率修正系数                  | 频率(Hz)   | 120 ≦ 频率 < 1k | 1k ≦ 频率 < 10k | 10k ≦ 频率 < 100k | 100k ≦ 频率 < 500k |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |
|                              | 修正系数   | 0.1           | 0.3           | 0.6             | 1.0              |     |    |    |                 |     |     |     |     |     |     |                 |     |     |     |     |     |

### 寸法图



制品各项寸法

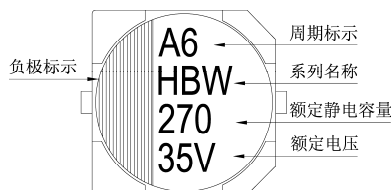
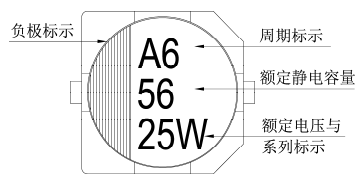
单位: 毫米

| φ D | L          | A    | B    | C    | W         | P ± 0.2 |
|-----|------------|------|------|------|-----------|---------|
| 6.3 | 5.8 ± 0.3  | 6.6  | 6.6  | 7.2  | 0.5 ~ 0.8 | 2.0     |
| 6.3 | 7.7 ± 0.3  | 6.6  | 6.6  | 7.2  | 0.5 ~ 0.8 | 2.0     |
| 8   | 10.0 ± 0.5 | 8.3  | 8.3  | 9.0  | 0.7 ~ 1.1 | 3.1     |
| 10  | 10.0 ± 0.5 | 10.3 | 10.3 | 11.0 | 0.7 ~ 1.3 | 4.7     |
| 10  | 12.5 ± 0.5 | 10.3 | 10.3 | 11.0 | 0.7 ~ 1.3 | 4.7     |

### 标示

φ D = 6.3

φ D = 8 ~ 10





尺寸: 直径( $\phi D$ ) $\times$ 长度(L), (毫米/mm)

容许纹波电流: 毫安/均方根值(mA/rms), 100k 赫兹(Hz), 125 $^{\circ}$ C

标准品一览表

| 额定电压<br>(V/伏特) | 涌浪电压<br>(V/伏特) | 额定静电容量<br>( $\mu$ F/微法拉) | 制品尺寸<br>$\phi D \times L$ | 损失角正切值<br>(120 Hz, 20 $^{\circ}$ C) | 漏电流<br>( $\mu$ A/微安) | 等效串联电阻(ESR)                                     |       | 额定纹波电流值                              |  |
|----------------|----------------|--------------------------|---------------------------|-------------------------------------|----------------------|---|-------|--------------------------------------|--|
|                |                |                          |                           |                                     |                      | 毫欧(m $\Omega$ )/100k 赫兹(Hz)最大值, 20 $^{\circ}$ C |       | 毫安(mA/rms) 100k Hz, 125 $^{\circ}$ C |  |
| 16V (1C)       | 18.4           | 82                       | 6.3 $\times$ 5.8          | 0.16                                | 13.1                 | 50  | 900   |                                      |  |
|                |                | 150                      | 6.3 $\times$ 7.7          |                                     | 24.0                 | 30  | 1,400 |                                      |  |
|                |                | 270                      | 8 $\times$ 10             |                                     | 43.2                 | 27  | 1,600 |                                      |  |
|                |                | 470                      | 10 $\times$ 10            |                                     | 75.2                 | 20  | 2,000 |                                      |  |
| 25V (1E)       | 28.8           | 47                       | 6.3 $\times$ 5.8          | 0.14                                | 11.8                 | 50  | 900   |                                      |  |
|                |                | 56                       | 6.3 $\times$ 5.8          |                                     | 14.0                 | 50  | 900   |                                      |  |
|                |                | 68                       | 6.3 $\times$ 7.7          |                                     | 17.0                 | 30  | 1,400 |                                      |  |
|                |                | 82                       | 6.3 $\times$ 5.8          |                                     | 20.5                 | 50  | 900   |                                      |  |
|                |                | 100                      | 6.3 $\times$ 7.7          |                                     | 25.0                 | 30  | 1,400 |                                      |  |
|                |                | 150                      | 8 $\times$ 10             |                                     | 37.5                 | 27  | 1,600 |                                      |  |
|                |                | 220                      | 8 $\times$ 10             |                                     | 55.0                 | 27  | 1,600 |                                      |  |
|                |                | 330                      | 10 $\times$ 10            |                                     | 82.5                 | 20  | 2,000 |                                      |  |
| 35V (1V)       | 40.3           | 27                       | 6.3 $\times$ 5.8          | 0.12                                | 9.5                  | 60  | 900   |                                      |  |
|                |                | 33                       |                           |                                     | 11.6                 |   |       |                                      |  |
|                |                | 47                       |                           |                                     | 16.5                 |   |       |                                      |  |
|                |                | 68                       | 6.3 $\times$ 7.7          |                                     | 23.8                 | 35  | 1,400 |                                      |  |
|                |                | 100                      | 8 $\times$ 10             |                                     | 35.0                 | 27  | 1,600 |                                      |  |
|                |                | 150                      | 8 $\times$ 10             |                                     | 52.5                 | 27  | 1,600 |                                      |  |
|                |                | 220                      | 10 $\times$ 10            |                                     | 77.0                 | 20  | 2,000 |                                      |  |
|                |                | 270                      | 10 $\times$ 10            |                                     | 94.5                 | 20  | 2,000 |                                      |  |
| 50V (1H)       | 57.5           | 22                       | 6.3 $\times$ 5.8          | 0.10                                | 11.0                 | 80  | 750   |                                      |  |
|                |                | 33                       | 6.3 $\times$ 7.7          |                                     | 16.5                 | 40  | 1,100 |                                      |  |
|                |                | 47                       | 8 $\times$ 10             |                                     | 23.5                 | 30  | 1,250 |                                      |  |
|                |                | 68                       | 8 $\times$ 10             |                                     | 34.0                 | 30  | 1,250 |                                      |  |
|                |                | 100                      | 10 $\times$ 10            |                                     | 50.0                 | 28  | 1,600 |                                      |  |
|                |                | 120                      | 10 $\times$ 10            |                                     | 60.0                 | 28  | 1,600 |                                      |  |
| 63V (1J)       | 72.5           | 10                       | 6.3 $\times$ 5.8          | 0.08                                | 6.3                  | 120   | 700   |                                      |  |
|                |                | 22                       | 6.3 $\times$ 7.7          |                                     | 13.9                 | 80  | 900   |                                      |  |
|                |                | 27                       | 8 $\times$ 10             |                                     | 17.0                 | 40  | 1,100 |                                      |  |
|                |                | 33                       |                           |                                     | 20.8                 |   |       |                                      |  |
|                |                | 47                       |                           |                                     | 29.6                 |   |       |                                      |  |
|                |                | 56                       | 10 $\times$ 10            |                                     | 35.3                 | 30  | 1,400 |                                      |  |
|                |                |                          | 10 $\times$ 12.5          |                                     | 35.3                 | 26  | 1,500 |                                      |  |
|                |                | 68                       | 10 $\times$ 10            |                                     | 42.8                 | 30  | 1,400 |                                      |  |
|                |                | 82                       | 10 $\times$ 10            |                                     | 51.7                 | 30  | 1,400 |                                      |  |
| 80V (1K)       | 92.0           | 22                       | 8 $\times$ 10             | 0.08                                | 17.6                 | 45  | 1,050 |                                      |  |
|                |                | 33                       | 10 $\times$ 10            |                                     | 26.4                 | 36  | 1,360 |                                      |  |
|                |                | 47                       | 10 $\times$ 10            |                                     | 37.6                 | 36  | 1,360 |                                      |  |

产品编码说明

HBW系列 220微法拉  $\pm 20\%$  25V 编带 8 $\phi$   $\times$  10L 一般用途  
**HBW** **221** **M** **1E** **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 应用别

注: 如需了解更详细介绍, 请参阅目录第87页“高分子固液混合产品编码说明”。