

引线产品编带成型

图1 Figure 1:

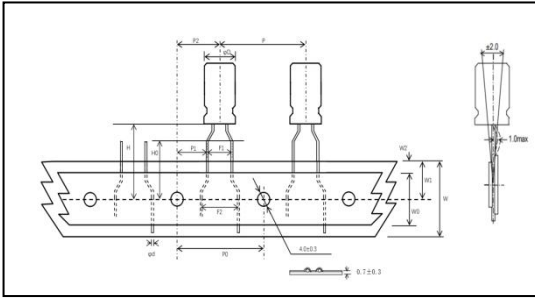


图2 Figure 2:

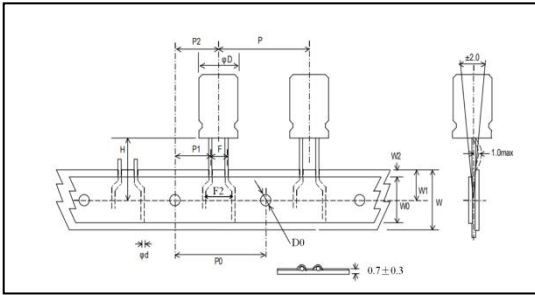


图3 Figure 3:

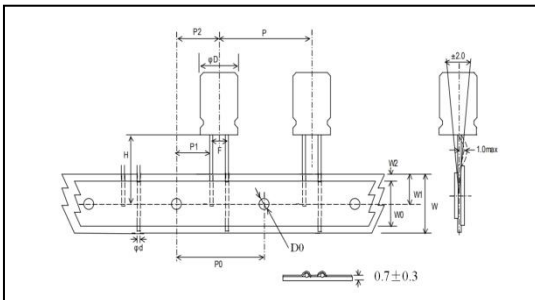


图4 Figure 4:

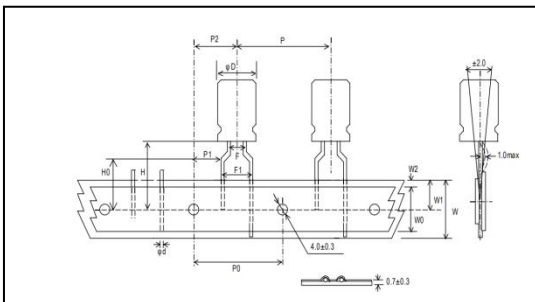


图1、图2、图3适用 Applies to Figure 1, Figure 2, Figure 3

| 代 码 | 产品尺寸 Dimensions | | | | | | | | | 允 许 偏 差 Toler- ance |
|--------|-----------------|------------|------------|-------|----------------|------------------|-----------------------------------|--------------|--|--|
| | 4X5 4X7 | 5X5 5X7 | 5X11 | 6.3X5 | 6.3X7 6.3X9 | 6.3X11 6.3X12 | 8X5/7 8X9/11 8X11.2 8X12 | 8X16 8X20 | 10X9/12 10X12.5 10X13 10X16 10X20 10X25 | |
| φ | 0.45 | 0.45 | 0.5 | 0.45 | 0.5 | 0.5 | 0.45/0.5 | 0.6 | 0.6 | ±0.05 |
| P | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±0.1 |
| P0 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±0.2 |
| P1 | 5.1 5.6 | 5.1 5.35 | 5.1 5.35 | 5.1 | 5.1 | 5.1 | 4.6 | 4.6 | 3.85 | ±0.5 |
| P2 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | ±1.0 |
| F | 2.5 1.5 | 2.5 2.0 | 2.5 2.0 | 2.5 | 2.5 | 2.5 | 3.5 | 3.5 | 5.0 | ±0.5 |
| H | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | ±0.75 |
| W | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | ±0.5 |
| W0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 8.0 | 8.0 | 8.0 | 11.0 | Min |
| W1 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | ±0.5 |
| W2 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | Max |

图4适用 Applies to Figure 4

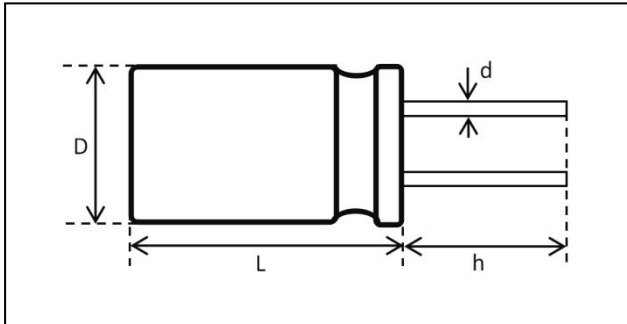
| 代 码 | 产品尺寸 Dimensions | | | | | | | | | 允 许 偏 差 Toler- ance |
|--------|-----------------|------|------|------|-------|----------------|------------------|---|--------------|--|
| | 4X5 4X7 | 5X5 | 5X7 | 5X11 | 6.3X5 | 6.3X7 6.3X9 | 6.3X11 6.3X12 | 8X5 8X7 8X9 8X11 8X11.5 8X12 | 8X16 8X20 | |
| φd | 0.45 | 0.45 | 0.45 | 0.5 | 0.45 | 0.5 | 0.5 | 0.45/0.5 | 0.6 | ±0.05 |
| P | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±0.2 |
| P0 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±0.2 |
| P1 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | ±0.7 |
| P2 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | ±1.0 |
| F | 1.5 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 3.5 | 3.5 | ±0.5 |
| F1 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | +0.8 |
| H | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | ±0.75 |
| H0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | ±0.5 |
| W | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | ±0.5 |
| W0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 8.0 | 8.0 | 8.0 | Min |
| W1 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | +0.75 |
| W2 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | Max |

包装数量 Package quantity:

| 产品直径 Product diameter | Φ4 | Φ5 | Φ6.3 | Φ8 | Φ10 | Φ13 |
|---|------------|------------|------------|------------|------------|------------|
| 每盒产品数 (PCS) Quantity of packages per box (PCS) | 2500 | 2000 | 1500 | 1000 | 600 | 300 |
| 折叠盒尺寸 (mm) Box size (mm) | 345*233*50 | 345*233*50 | 345*233*50 | 345*233*50 | 345*233*50 | 345*233*50 |

引线产品切脚成型

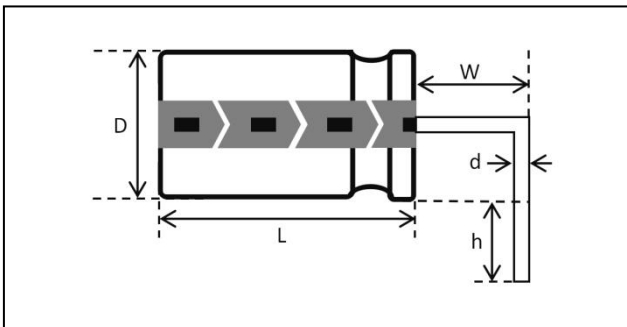
图 1 Figure 1:



单位 Unit: mm

| $D \pm 0.5$ | $h \pm 0.5$ | 脚距 $F \pm 0.5$ |
|-------------|-------------|----------------|
| $\phi 4$ | 2.5-15 | 1.5 |
| $\phi 5$ | 2.5-15 | 2.0 |
| $\phi 6.3$ | 2.5-15 | 2.5 |
| $\phi 8$ | 2.5-15 | 3.5 |
| $\phi 10$ | 2.5-15 | 5.0 |
| $\phi 13$ | 2.5-15 | 5.0 |
| $\phi 16$ | 2.5-15 | 7.5 |
| $\phi 18$ | 2.5-15 | 7.5 |

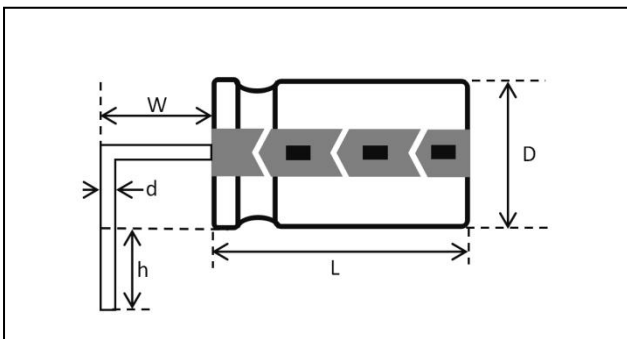
图 2 Figure 2:



单位 Unit: mm

| $D \pm 0.5$ | $W \pm 0.3$ | $h \pm 0.3$ |
|-------------|-------------|-------------|
| $\phi 4$ | 2.0 | 2.5-10 |
| $\phi 5$ | 2.0 | 2.5-10 |
| $\phi 6.3$ | 2.0 | 2.5-10 |
| $\phi 8$ | 2.0 | 2.5-10 |
| $\phi 10$ | 2.0 | 2.5-10 |
| $\phi 13$ | 2.0 | 2.5-10 |
| $\phi 16$ | 2.0 | 2.5-10 |
| $\phi 18$ | 2.0 | 2.5-10 |

图 3 Figure 3:



单位 Unit: mm

| $D \pm 0.5$ | $W \pm 0.3$ | $h \pm 0.3$ |
|-------------|-------------|-------------|
| $\phi 4$ | 2.0 | 2.5-10 |
| $\phi 5$ | 2.0 | 2.5-10 |
| $\phi 6.3$ | 2.0 | 2.5-10 |
| $\phi 8$ | 2.0 | 2.5-10 |
| $\phi 10$ | 2.0 | 2.5-10 |
| $\phi 13$ | 2.0 | 2.5-10 |
| $\phi 16$ | 2.0 | 2.5-10 |
| $\phi 18$ | 2.0 | 2.5-10 |

备注：1. “h” 尺寸按客户要求要求进行生产，表格中仅为参考。

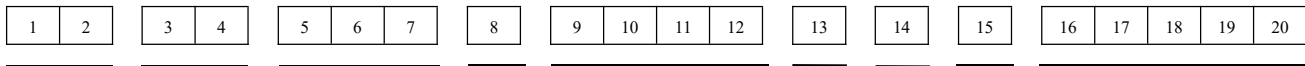
Note: 1. The size of 'h' is produced according to customer requirements, and the table is for reference only.

铝电解电容器使用注意事项

Application Guidelines for Aluminum Electrolytic



产品编码说明: Part Number System



| | | | | | | | | |
|--------------|---------------|---------------------|----------------------------------|-------------------------|---------------|---------------|-------------------|------------------------------------|
| 系列 Series | 电压 Voltage | 标称容量 Capacitance | 容量偏差 Capacitance Tolerance | 直径高度 Diameter Height | 产品脚距 Pitch | 产品颜色 Color | 产品温度 Temperate | 内部识别码 Internal Recognition Code |
|--------------|---------------|---------------------|----------------------------------|-------------------------|---------------|---------------|-------------------|------------------------------------|

| 系列 | 代码 |
|----|----|
| SS | SS |
| SM | SM |
| EC | EC |
| EH | EH |
| EF | EF |
| EL | EL |
| EJ | EJ |
| EM | EM |
| EB | EB |
| EG | EG |
| NP | NP |
| KH | KH |
| KP | KP |
| KF | KF |
| KT | KT |
| KR | KR |
| KL | KL |
| KJ | KJ |
| KC | KC |
| KB | KB |
| LS | LS |
| LH | LH |
| LP | LP |
| LF | LF |
| PC | PC |
| PH | PH |
| PZ | PZ |
| VT | VT |
| VZ | VZ |

| 工作电压 | 代码 |
|------|----|
| 2.5 | 0E |
| 4 | 0G |
| 6.3 | 0J |
| 8 | 0K |
| 10 | 1A |
| 12 | 1B |
| 16 | 1C |
| 25 | 1E |
| 35 | 1V |
| 50 | 1H |
| 63 | 1J |
| 80 | 1K |
| 100 | 2A |
| 120 | 2B |
| 160 | 2C |
| 200 | 2D |
| 250 | 2E |
| 300 | 2L |
| 315 | 2F |
| 330 | 2N |
| 350 | 2V |
| 400 | 2G |
| 420 | 2M |
| 450 | 2W |
| 475 | 2X |
| 500 | 2H |
| 550 | 2Y |
| 600 | 2K |
| 630 | 2J |

| 标称容量 | 代码 |
|------|-----|
| 0.10 | R10 |
| 0.22 | R22 |
| 0.33 | R33 |
| 0.47 | R47 |
| 1.0 | 1R0 |
| 2.2 | 2R2 |
| 3.3 | 3R3 |
| 4.7 | 4R7 |
| 10 | 100 |
| 22 | 220 |
| 33 | 330 |
| 47 | 470 |
| 100 | 101 |
| 220 | 221 |
| 330 | 331 |
| 470 | 471 |
| 1000 | 102 |
| 2200 | 222 |
| 3300 | 332 |
| 4700 | 472 |
| 1000 | 103 |
| 2200 | 223 |
| 3300 | 333 |
| 4700 | 473 |

| 容量偏差 | 代码 |
|---------|----|
| -5+20% | G |
| -10+20% | V |
| -10+10% | K |
| -15+20% | Z |
| -20+20% | M |
| 0+20% | R |
| 0+30% | Q |
| 0+50% | T |
| 0+80% | S |

| 产品尺寸 | 代码 |
|---------|------|
| 5X11 | 0511 |
| 6X12 | 0612 |
| 6.3X12 | 6L12 |
| 8X12 | 0812 |
| 10X12.5 | 101C |
| 10X16 | 1016 |
| 13X20 | 1320 |
| 16X21 | 1621 |
| 18X21 | 1821 |
| 22X25 | 2225 |
| 25X25 | 2525 |
| 30X30 | 3030 |
| 30X35 | 3035 |
| 35X30 | 3530 |
| 12.5X50 | 1C50 |
| 特殊尺寸 | 代码 |
| 0.5 | A |
| 1.5 | B |
| 2.5 | C |
| 3.5 | D |
| 4.5 | E |
| 5.5 | F |
| 6.5 | G |
| 7.5 | H |
| 8.5 | J |
| 9.5 | K |
| 0.2 | M |
| 0.3 | L |
| 0.4 | N |
| 0.7 | P |

| 印字温度 | 代码 |
|-------|----|
| 85°C | S |
| 105°C | H |
| 130°C | G |
| 产品脚距 | 代码 |
| 1.5 | A |
| 2.0 | B |
| 2.5 | C |
| 3.5 | D |
| 5.0 | E |
| 7.5 | F |
| 10 | G |
| 12.5 | H |

| 产品颜色 | 代码 |
|------|----|
| 黑底白 | A |
| 黑底金 | B |
| 咖啡白 | C |
| 咖啡金 | D |
| 紫底白 | E |
| 紫底金 | F |
| 绿底白 | G |
| 绿底金 | H |
| 黄底黑 | J |
| 咖啡银 | K |
| 红字 | Y |
| 黑字 | Z |

备注: 使用涉及到和极限参数有关问题请与圣融达联系。

Note: Any questions related to the parameters using, please contact Sincerity.

基本参数及术语

1. 极性

铝电解电容器是有极性的。所以在使用之前要确认极性、切勿错置极性。如果错置极性，会造成漏电流增加并导致短路，严重者会导致产品防爆阀打开。

2. 电压

实际工作电压不要超出标定工作电压，否则会导致漏电流增大，可能会由于内部升温而损坏电容器。直流电压和纹波电压的峰值之和不得超过工作电压。

3. 温度

要在额定温度范围内使用，如果超出温度范围会导致电气特性变差，这种潜在的损害可能会导致电容器的失效。使用时不仅要关注外界环境温度，还要考虑元器件内部可能导致的温度升高。

4. 纹波电流

要在允许的纹波电流范围内使用。纹波电流超出额定值会引起电容器发热，导致漏电流增大和使用寿命减少。

5. 储存

电容器应避免在潮湿和阳光直射的环境中存放，存放环境温度以 5-30°C、相对湿度低于 60%RH 为宜。为保持良好的焊接性能，请在本公司出厂状态下保管电容器，并尽量在开封后一次用完，如有剩余，请重新装回包装袋中，用胶带封住开封部位。储存壹年以上的电容器，在使用之前应进行烘干处理，并接 1KΩ 串联电阻，逐渐施加直流电压至额定工作电压，保持工作电压 1 小时，然后再使用。

Basic parameters and terms

1. Polarity

Aluminum electrolytic capacitors are polar. Therefore, before use, confirm the polarity and do not misplace the polarity. If the polarity is misplaced, it will cause the leakage current to increase and lead to short circuit, and in severe cases, it will cause the product explosion-proof valve to open.

2. Voltage

The working voltage should not exceed the calibrated voltage, otherwise it will cause an increase in leakage current and may damage the capacitor due to internal heating. The sum of the peak values of DC voltage and ripple voltage shall not exceed the working voltage.

3. Temperature

To be used within the rated temperature range, exceeding the temperature range will cause electrical characteristics to deteriorate, this potential damage may lead to the failure of the capacitor. When using, not only should pay attention to the external ambient temperature, but also consider the possible temperature rise caused by the internal components.

4. Ripple Current

To be used within the allowable ripple current range. The ripple current exceeding the rated value will cause the capacitor to heat up, resulting in increased leakage current and reduced service life.

5. Storage

Capacitors should avoid being stored in a humid and direct sunlight environment, with a storage temperature of 5-30 °C and a relative humidity below 60% RH. In order to maintain good welding performance, please keep the capacitors in the factory condition, and try to use them all at once after opening. Capacitors stored for more than one year should be dried before use, and connected with 1KΩ series resistance, gradually apply DC voltage to the rated working voltage, maintain the working voltage for 1 hour, and then use.

6. 测量

急速充放电引起的冲击电流会造成漏电流的增加、甚至短路，为此电容器漏电流串联 1K Ω 保护电阻，逐步施加至工作电压，测试其他各项参数应串联 1K Ω 电阻使电容器充分放电后再进行测量。

7. 安装

- (1) 确认规格（静电容量及工作电压等）及极性后，再安装；
- (2) 变形电容器不要安装；
- (3) 电容器正、负极间距与电路板孔距必须吻合；
- (4) 自动插入机的机械手力量不宜过大；
- (5) 焊接条件（温度、时间、次数）必须按规定说明执行；
- (6) 不要将电容器本身浸入焊锡溶液中；
- (7) 焊接时，不要让其它产品倒下碰到电容器；
- (8) 请勿施加过度外力于引线及端子上；
- (9) 请勿扳动已经焊接在 PC 板上的电容器。
- (10) 不要重复回流焊超过两次。

8. 电容器应尽量避免在下列环境下使用

- (1) 直接与水、盐或油接触；
- (2) 暴露在阳光直射下；
- (3) 高温或高湿的环境；
- (4) 充满有害化学气体的环境；
- (5) 酸碱环境；
- (6) 过度振动或冲击的环境。

6. Measurement

The surge current caused by rapid charging and discharging can cause an increase in leakage current and even short circuits. Therefore, a 1K Ω protective resistor should be connected in series with the leakage current of the capacitor, and gradually applied to the working voltage to fully discharge it before measuring other parameters.

7. Mounting

- (1) Confirm the specifications (electrostatic capacity and working voltage, etc.) and polarity before mounting;
- (2) Do not install deformed capacitors;
- (3) Capacitor positive and negative electrode spacing and circuit board hole spacing must be consistent;
- (4) The strength of the mechanical arm of the automatic inserting machine should not be too large;
- (5) The welding conditions (temperature, time, frequency) must be executed according to the specified instructions;
- (6) Do not immerse the capacitor itself in the soldering solution;
- (7) Do not let other products fall and touch the capacitor when welding;
- (8) Do not apply excessive external force to the leads and terminals;
- (9) Do not pull the capacitors that have been soldered onto the PC board;
- (10) Do not repeat reflow soldering more than twice.

8. Avoid in the following environments

- (1) Direct contact with water, salt, or oil;
- (2) Exposed to direct sunlight;
- (3) High temperature or high humidity environment;
- (4) An environment filled with harmful chemical gases;
- (5) Acid-base environment;
- (6) An environment with excessive vibration or impact.