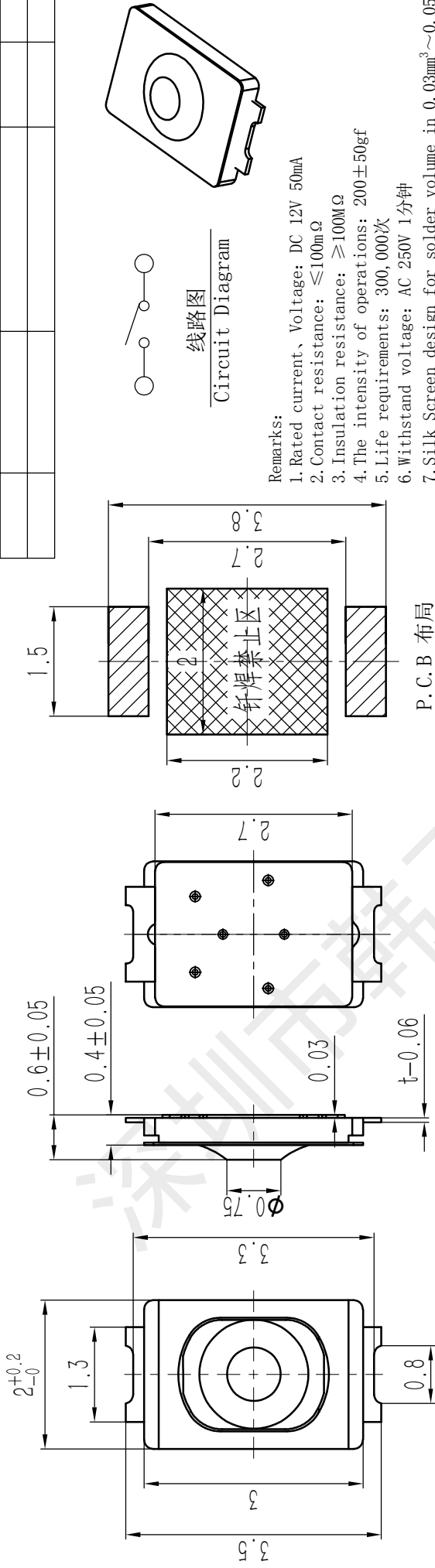
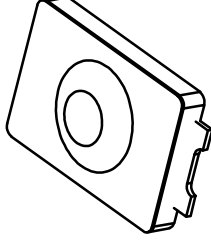


|         |     |            |          |               |
|---------|-----|------------|----------|---------------|
| Version | ECM | Amendments | Modifier | Date Modified |
|         |     |            |          |               |



线路图  
Circuit Diagram

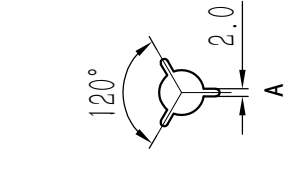
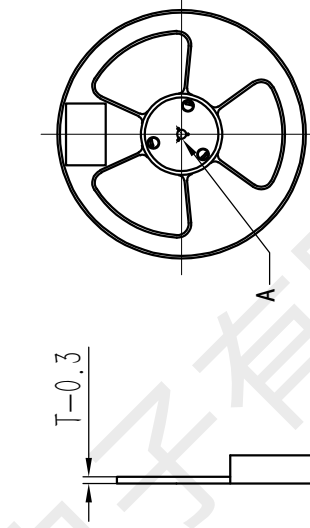
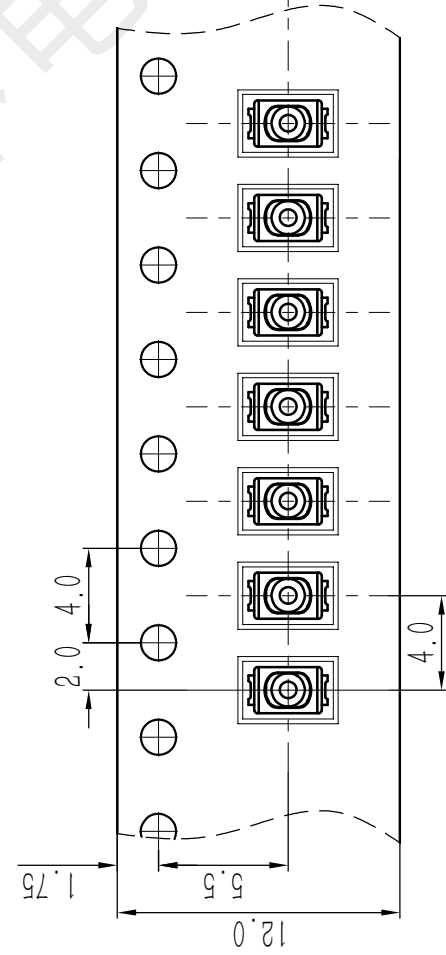


Remarks:

1. Rated current, Voltage: DC 12V 50mA
2. Contact resistance:  $\leq 100m\Omega$
3. Insulation resistance:  $\geq 100M\Omega$
4. The intensity of operations: 200±50gf
5. Life requirements: 300,000次
6. Withstand voltage: AC 250V 1分钟
7. Silk Screen design for solder volume in 0.03mm<sup>3</sup>~0.05mm<sup>3</sup>
8. All materials comply with RoHS standards

P.C.B 布局

Recommended PCB Layout



Remarks:

1. The number of tapes per volume is 10000 PCS;
2. Braiding process, can not be caused by carrying half crushed;
3. Pay attention to the direction of the tape, with a clockwise direction out of the carrier tape, with a hole in the top or right

| NO. | PART NAME | MATERIAL        | QTY | General Tolerance |       | DRAWN | AFFIRM | AUDITING | DATE       | 黄彬 | 张伟 | 罗小春 | Product Name | Tact Switch |       |     |
|-----|-----------|-----------------|-----|-------------------|-------|-------|--------|----------|------------|----|----|-----|--------------|-------------|-------|-----|
|     |           |                 |     | X ≤ 1             | X > 1 |       |        |          |            |    |    |     |              | Rev         | SHEET |     |
| 5   | Button    | PA9T            | 1   | Black             | ±0.05 |       |        |          | 2022.05.18 |    |    |     | HX TS2306A   | 200gf       | AI    | 1:1 |
| 4   | Paster    | Polyimide       | 1   | White             | ±0.10 |       |        |          |            |    |    |     |              |             |       |     |
| 3   | Shrapnel  | SUS             | 2   | Ag Plating        | ±0.15 |       |        |          |            |    |    |     |              |             |       |     |
| 2   | Housing   | PA9T            | 1   | Black             | ±0.25 |       |        |          |            |    |    |     |              |             |       |     |
| 1   | Terminal  | Phosphor copper | 2   | Ag Plating        | ±3°   |       |        |          |            |    |    |     |              |             |       |     |
|     |           |                 |     | FINISHING         | UNIT  |       |        |          |            |    |    |     |              |             |       |     |



深圳市韩下电子有限公司

Shenzhen Hanxia Electronic Co., Ltd  
Tel: 0755-33819206 Fax: 0755-27597491

## 承 认 书

### SPECIFICATION FOR APPROVAL

客 户 Customer:

\_\_\_\_\_

产品名称 Project:

轻触开关

\_\_\_\_\_

规格型号 Part No:

HX TS2306A 200gf

\_\_\_\_\_

#### 贵公司承认印 Approval signatures

| 料 号/Part No. | 签 章/Signatures |
|--------------|----------------|
|              |                |

日期 Date:

|             |     |  |
|-------------|-----|--|
| 拟制/Drawn    | 黄彬  |  |
| 审核/Check    | 张伟  |  |
| 批准/Approved | 罗小春 |  |

## 产 品 规 格 书 PRODUCT SPECIFICATION

|                               |                                    |   |  |
|-------------------------------|------------------------------------|---|--|
| SIRLES                        |                                    | 系列:TACT SWITCHES(轻触开关)  |  |
| MODEL                         |                                    | 型号: HX TS2306A 200gf  |  |
| 1.RATING                      |                                    | 额定值:50mA 12VDC  |  |
| 2.CONSTRUTION DIMENSION 结构尺寸  |                                    | Apply to the appended drawing符合附加图纸   |  |
| 3.APPEARANCE 外观               |                                    | Have no remarkable damage,crack and rust etc无明显损伤,裂纹,锈迹等.   |  |
| 4.CONTACTLOOP 接触回路            |                                    | Monople loop:单通单极回路   |  |
| ITEM 专案                       |                                    | TEST CONDITION 测试条件   | SPECIFICATION 规格   |
| 5.CAPABILITY OF ELECTRIC 电气性能 |                                    |   |  |
| 5A                            | INSULATION RESISTANCE<br>绝缘电阻      | Measurements shall be made following Application of DC500V potential across terminals and across terminals and fuame for 1minute在端子之间和端子与壳之间加 DC500V 条件下,持续 1 分钟测量. | 100M $\Omega$ min<br>100 兆欧以上.   |
| 5B                            | WITHSTAND VILTAGE<br>耐电压           | AC250V、50HZ、1 min (i min(i nterrupting current $\leq$ 500uA). AC250V、50HZ、1 分钟(漏电流 500uA)   | There shall be no briakdown 无击穿现象出现。   |
| 5C                            | CONTACT CIRCUIT<br>接触电路            | Addition 1.5-2 time force on the top of the keystrok and press the switch,DC50V100mA在按键顶端上等于作用力 1.5-2 倍的力按动开关,DC50V,10Ma.   | 100 m $\Omega$ Max<br>(100 m $\Omega$ 以下) .  |
| 5D                            | SWITCH CONNECTION<br>FLASH 开关接触点抖动 | Addition DC5V on the two side of switch,at a speed of 3-5time a sec.to press the switch在开关的两端加 DC5V 的电压,以 3-5 次/秒的速度按动开关.   | The flash time betwcn open not more than 10ms.<br>开关在接通和断开时的接点抖动时间不大于 10 ms.       |
| 6.MECHANICAL EFFICIENCY 机械性能  |                                    |   |  |
| 6A                            | CONTACT STRENGTH<br>按键强度           | The contact shall be capable of a rorce of 5N for 5 seconds in any directions沿开关动作方向可承受静能压力 5N, 保持 5 秒钟.  | Switch electric andmechanical efficiency does not break 无损开关电气或者机械性能               |
| 6B                            | CONTACT JOURNEY                    |   | 按键行程:<br>0.2 $\pm$ 0.1mm   |
| 6C                            | DRIVE FORCE<br>驱动力                 | Being measure at across spring piece and across keystoke forergometer用测力计在按键与弹片之间测量.  | Contact switch'sd drive dirive fouce was200 $\pm$ 50gf.<br>按键的开关驱动力为200 $\pm$ 50gf |

## 产 品 规 格 书

### PRODUCT SPECIFICATION

-2-

|   |   |  |  |
|---|---|--|--|
| 6D  | CONNECTION STRENGTH<br>接线端强度  | A force of 1N being applying in any directions of the switch connection partt.在接线端的作用方向施加 1N 的力.   | Switch mechanical efficiency does not break.无损开关机械性能.  |
| 6E  | MECHANICAL LIFE<br>机械寿命   | Operatin at a rate of 30-50 cycles a minute. 以 30-50 次/分的驱动速度操作.   | Life:300000cycles<br>寿命:300000 次   |
| 7.ENVIRONME NT---RESISTANT EFFICIENCY 耐环境性能 |   |  |  |
| 7A  | CHANGE OF TEMPERATURE 温度变化  | The first temperature shall be 65°C ,2h and changed to-30°C ,2h,5c ycles of above test. 先 65°C ,2h, 然后-30°C ,2h, 如此重复 3 次.   | 1. The appearance should not break.外观应无损伤.<br>2. Contact resistance $\leq 100 M \Omega$ 接触电阻 $\leq 100M \Omega$                              |
| 7B  | HUMIDITY RESISTANT 耐湿热  | 40 $\pm$ 2°C in temperature and 95%RH , Ruring the test time without load; After testing the temperature should be 48h. 经 40 $\pm$ 2°C , 相对湿度 95%, 试验期间, 开关不动作, 不带电负荷, 试验后恢复到常温 48h. | 3. Insulation resistance $\geq 100 M \Omega$ . 绝缘电阻 $\geq 100 M \Omega$  |
| 8.IOINTING EFFICIENCY 焊接性能                  |   |  |  |
| 8A  | SOLDERABILITY<br>可焊性  | Temperature260 $\pm$ 5°C ; Durati on; 3 $\pm$ 0.5S:温度在 260 $\pm$ 5°C , 持续 3 $\pm$ 0.5S.  | Solderability part should above 90% 可焊部分被焊料覆盖面应在 90% 以上.   |
| 8B  | SOLDER—RESISTANT<br>耐焊剂性  | Warm-up temperature:100°C,40S, 焊锡温度 260 $\pm$ 5°C , 浸焊时间 3 $\pm$ 0.5S.   | Proth height of assist solder should under board and switch electric and mechanical efficien- cy does not break.助焊剂发泡不应超过印制板,无损伤开关电气或机械动作性能. |
| 8C  | JOINTING—RESISTANT<br>耐焊接热  | Jointing temperature: 260 $\pm$ 5°C , Duration of immersion: 5 $\pm$ 1S. 焊锡温度 260 $\pm$ 5°C , 浸焊时间 5 $\pm$ 1S  | efficiency does not break 无损伤开关电气或机械动作性能   |
| 8D  | NORMAL JOLNTING TIMES<br>正常焊接次数   |  | $\leq 2$ times 小于 2 次  |
| 9.NOTES                                     |   |  |  |
| 9A  | The whole boxes of switch should keep in the temperature -30--80°C and less than 80%RH withort acidic, alkal escence, caustic gas in the environment of the storage.<br>整箱包装的开关, 应在温度为-30--80°C , 相对湿度不大于 80%, 周围的空气中没有酸性、碱性或其他腐蚀性气体的库房内保管。 |  |  |
| 9B  | Operating Temperature Range:-20 to 80C<br>操作温度的范围: -20 to 80°C  |  |  |
| 9C  | Switch should install in a correct method.<br>开关应按正确的安装方法进行正确安装使用。  |  |  |