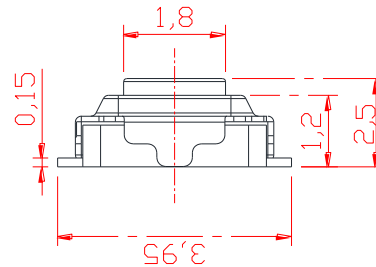
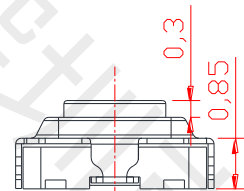
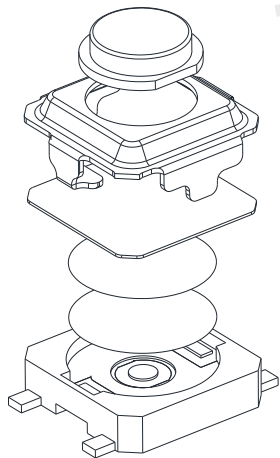
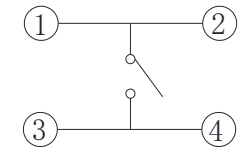


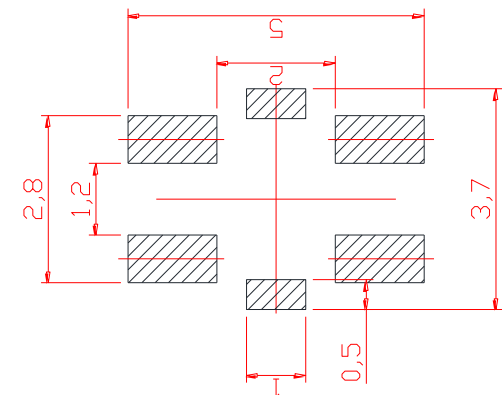
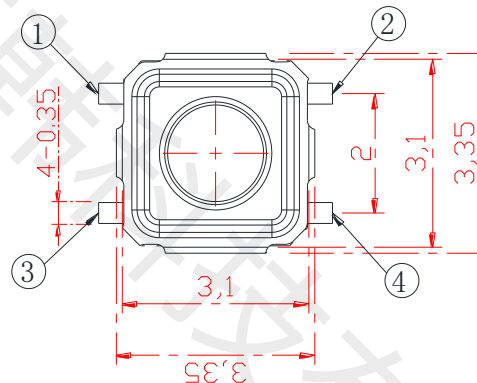
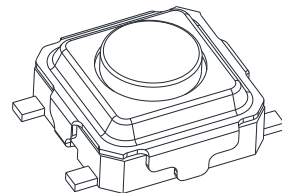
SH-A007



| H   |
|-----|
| 1.5 |
| 1.7 |
| 2.0 |
| 2.5 |



电 路 图



PCB. 焊接图

主要技术规格:

1. 额 定 值: 50mA DC12V
2. 接触电阻:  $\leq 100\text{m}\Omega$
3. 操 作 力:  $160 \pm 50\text{gf}$
4. 行 程:  $0.15 \pm 0.10\text{mm}$
5. 绝缘电阻:  $\geq 100\text{M}\Omega$
6. 抗电强度: 100V 50HZ 1Min.
7. 寿 命: 50,000 Cycles

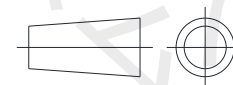
材料:

本体: LCP (灰色)  
按钮: LCP (黑/白色)  
卡件: 磷铜 (镀银)  
弹片: 不锈钢 (镀银)  
防水层: 聚酰亚胺  
盖板: 不锈钢



深圳市首韩科技  
有限公司

第一视角



品名:

轻触开关

型号:

TS3325A 160gf BD 025

| 标记  | 处数 | 更改文件号 | 签 名 | 日 期       | 比 例 | 1:1 | 一般公差   |                 |
|-----|----|-------|-----|-----------|-----|-----|--------|-----------------|
| 设 计 |    | 李春风   |     | 2020.8.12 | 单 位 | mm  | >0.5~2 | $\pm 0.10$      |
| 审 核 |    | 钟华华   |     | 2020.8.12 | 重 量 |     | >2~5   | $\pm 0.25$      |
| 批 准 |    | 罗孝金   |     | 2020.8.12 |     |     | >5~10  | $\pm 0.30$      |
|     |    |       |     |           |     |     | 角度     | $\pm 0.5^\circ$ |



深圳市首韩科技有限公司

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Tel: 0755-27597601 Fax: 0755-27597491

## 承 认 书

### SPECIFICATION FOR APPROVAL

产 品 编 码

Material code:

产品名称 Project:

轻触开关

规格型号 Part No:

TS3325A 160gf BD 025

贵公司承认印 Approval signatures

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

日期 Date:

|             |     |                                                                                      |
|-------------|-----|--------------------------------------------------------------------------------------|
| 拟制/Drawn    | 李春风 |  |
| 审核/Check    | 钟华华 |                                                                                      |
| 批准/Approved | 罗孝金 |                                                                                      |

## 产 品 规 格 书

## PRODUCT SPECIFICATION

|                              |                                    |                                                                                                                                                                      |                                                                                    |
|------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| SIRLES                       |                                    | 系列:TACT SWITCHES(轻触开关)                                                                                                                                               |                                                                                    |
| MODEL                        |                                    | 型号:TS3325A 160gf BD 025                                                                                                                                              |                                                                                    |
| 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 $\Omega$ <b>min</b><br>100 兆欧以上.                                              |
| 5B                           | WITHSTAND VILTAGE<br>耐电压           | AC250V、50HZ、1 <b>min</b> ( <b>imin(interrupting current)</b> $\leq 500\mu A$ ). AC250V、50HZ、1 分钟(漏电流 500 $\mu A$ )                                                   | There shall be no briakdown 无击穿现象出现。                                               |
| 5C                           | CONTACT CIRCUIT<br>接触电阻            | 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.                                            | 100m $\Omega$ <b>Max</b><br>(100m $\Omega$ 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 between 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>0.15 $\pm$ 0.1mm                                                          |
| 6C                           | DRIVE FORCE<br>驱动力                 | Being measure at across spring piece and across keystroke forergometer用.测力计在按键与弹片之间测量.                                                                               | Contact switch'sd drive dirive fouce was160 $\pm$ 50gf.<br>按键的开关驱动力为160 $\pm$ 50gf |

## 产 品 规 格 书 PRODUCT SPECIFICATION

-2-

|                                             |                                                                                                                                                                                                                                   |                                                                                                                                                                                  |                                                                                                                                             |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 6D                                          | CONNECTION<br>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:50000cycles<br>寿命:50000次                                                                                                               |
| 7.ENVIRONME NT---RESISTANT EFFICIENCY 耐环境性能 |                                                                                                                                                                                                                                   |                                                                                                                                                                                  |                                                                                                                                             |
| 7A                                          | CHANGE OF<br>TEMPERATURE 温度变化                                                                                                                                                                                                     | The first temperature shall be 65℃ ,2h and changed to-30℃, 2h, 5c ycles of above test. 先 65℃, 2h, 然后-30℃, 2h, 如此重复 3 次.                                                          | 1. The appearance should not break.外观应无损伤.<br>2. Contact resistance $\leq 100\text{ M}\Omega$ 接触电阻 $\leq 100\text{M}\Omega$                 |
| 7B                                          | HUMIDITY RESISTANT 耐湿热                                                                                                                                                                                                            | 40 $\pm$ 2℃ in temperature and 95%RH , Ruring thetest time without load; After testing the temperature should be 48h. 经 40 $\pm$ 2℃, 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 $\geq 100\text{ M}\Omega$ . 绝缘电阻 $\geq 100\text{M}\Omega$                                                          |
| 8.IOINTING EFFICIENCY 焊接性能                  |                                                                                                                                                                                                                                   |                                                                                                                                                                                  |                                                                                                                                             |
| 8A                                          | SOLDERABILITY<br>可焊性                                                                                                                                                                                                              | Temperature245 $\pm$ 5℃ ;Duration;3 $\pm$ 0.5S:温度在 245 $\pm$ 5℃, 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℃,40S, 焊锡温度 260 $\pm$ 5℃, 浸焊时间 3 $\pm$ 0.5S.                                                                                                              | Froth height of assist solder should under board and switch electric and mechanical efficiency 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℃ ,Duration of immersion: 5 $\pm$ 1S. 焊锡温度 260 $\pm$ 5℃, 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℃and less than 80%RH withort acidic,alkalescence,caustic gas in the environment of the storage.<br>整箱包装的开关,应在温度为-30--80℃,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:-20to 70℃<br>操作温度的范围: -20 to 70℃                                                                                                                                                                      |                                                                                                                                                                                  |                                                                                                                                             |
| 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。                                                                                                                                                                |                                                                                                                                                                                  |                                                                                                                                             |