

# 承認書

APPROVE SHEET



敬請承認如下之形式規格書：

客戶名稱

CUSTOMER: \_\_\_\_\_

貴公司製品名

本公司製品名：

CUSTOMER PN: \_\_\_\_\_

PRODUCT PN: \_\_\_\_\_

轻触开关

貴公司規格

本公司規格：

APPROVAL DAT: \_\_\_\_\_

PRODUCT CODE: \_\_\_\_\_

EL-1188 H1.5

客戶料號：

本公司規格書編號：

CUSTOMER NO.: \_\_\_\_\_

PRODUCT DRAWING NO.: \_\_\_\_\_

☒ 新品承認

NEW APPROVE

☐ 規格變更再承認

CHANGE CODE APPROVE  
AGAIN

☐ 材料變更再承認

CHANGE MATERIAL APPROVE  
AGAIN

APPROVAL

批准

CHECK

審查

DESIGN

設計

DATE:

DATE:

DATE:

貴公司承認欄

APPROVAL SIGNATURES

請於\_\_\_\_年\_\_\_\_月\_\_\_\_日前承認返回

日期 DATE: \_\_\_\_\_

PLEASE RETURN TO ADMIT XUNIANRURI

深圳市亿利百斯特电子有限公司

ShenZhen ElyBest Electronics Co., Ltd

付文鹏 (Vincent Fu)

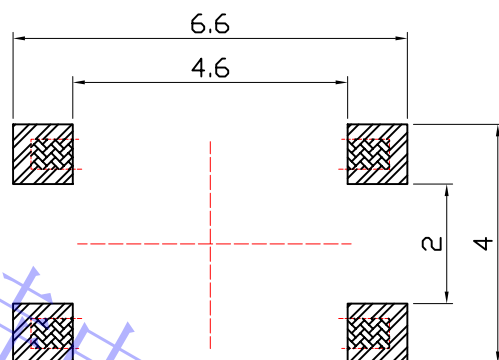
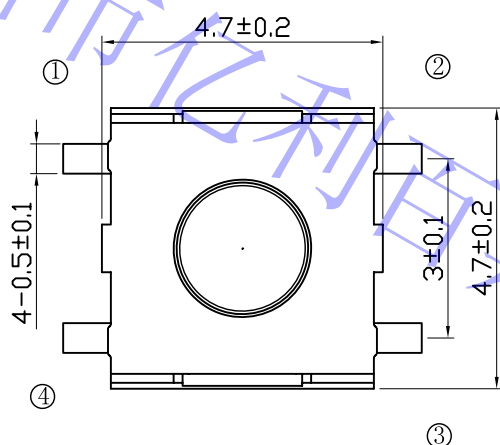
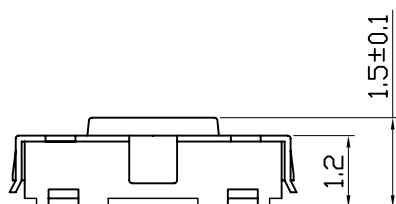
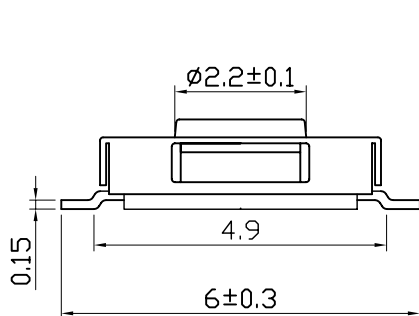
Tel : 0755-28213003

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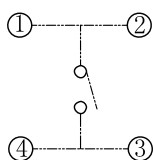
Mob: 18923844556

Email : vincent@elybest.com

Add : 深圳市龙岗区平湖街道世之鼎产业园B栋220



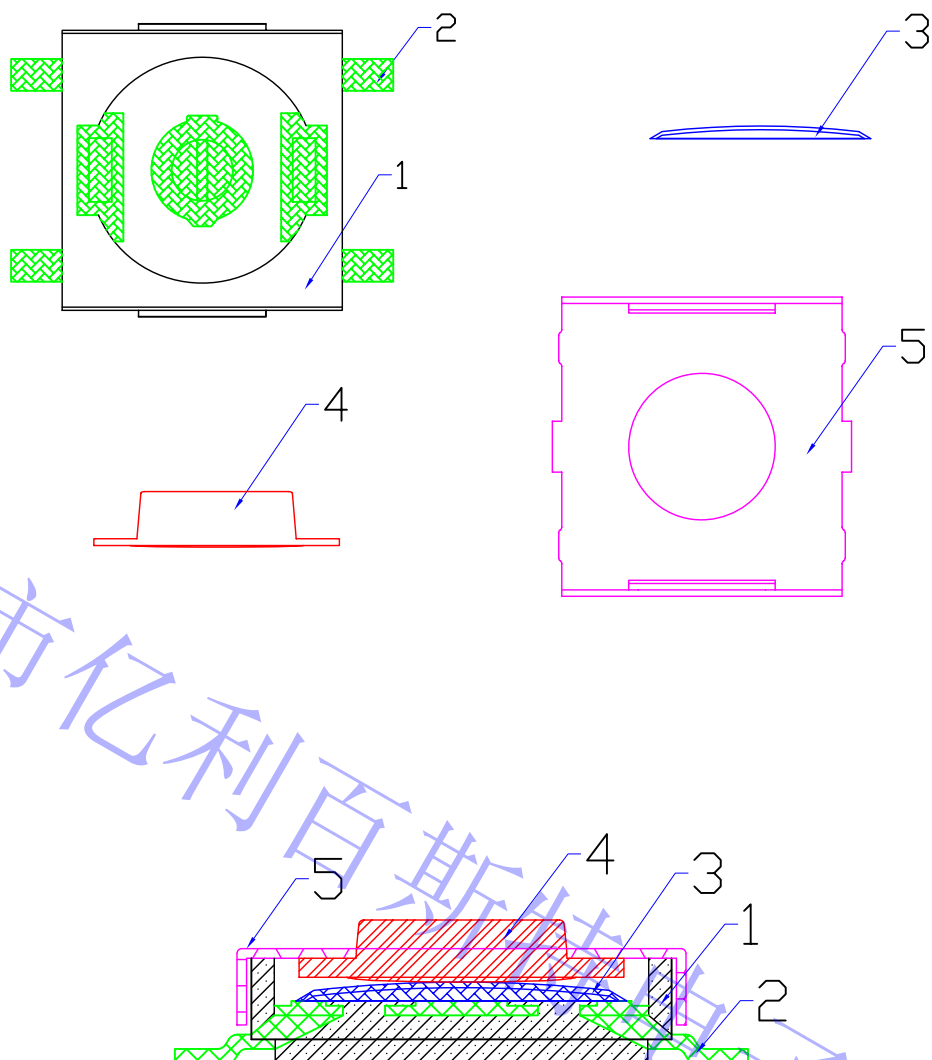
安装图(PCB LAYOUT PLAN)



电路图 (CIRCUIT DIAGRAM)

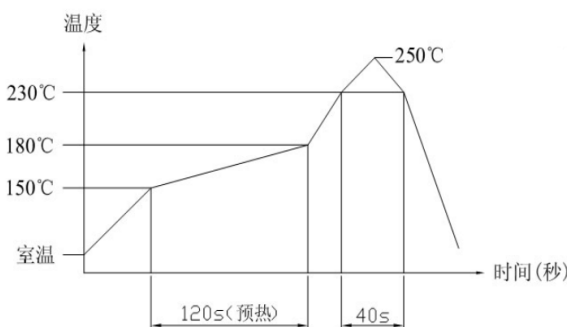
| LENGTH |     | TOLERANCE |
|--------|-----|-----------|
| L      | <5  |           |
|        | ≤10 |           |
|        | ≤15 |           |
|        | >15 |           |

|                                                                                                                                                   |     |      |              |          |                 |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|--------------|----------|-----------------|-------|
| 型号                                                                                                                                                | 高度  | 底座颜色 | 按柄颜色         | 动作力 (gf) | 回复力 (gf)        | HS要求  |
| EL-1188 H1.5                                                                                                                                      |     |      |              |          |                 | ROHS  |
|  <b>深圳市亿利百斯特电子有限公司</b><br>ShenZhen ElyBest Electronics Co., Ltd |     |      |              |          |                 | 备注    |
|                                                                                                                                                   |     |      |              |          |                 | 比例1:1 |
| 制定                                                                                                                                                | 核对  | 审批   | 日期           | 尺寸单位     | 此数据仅供参考，实际以样品为准 |       |
| 郭政                                                                                                                                                | 倪云鹏 | 林志明  | 2015. 06. 30 | mm       |                 |       |



| 项目 | 零件   | 材料                   | 颜色  | 数量 |
|----|------|----------------------|-----|----|
| 1  | 塑胶基座 | PA                   | 黑 色 | 1  |
| 2  | 五金端子 | 磷铜镀银                 | 银白色 | 4  |
| 3  | 接触簧片 | (STS301) SUS301不锈钢复银 | 银白色 | 1  |
| 4  | 塑胶按柄 | PA                   | 黑 色 | 1  |
| 5  | 五金盖板 | 不锈钢                  | 本 色 | 1  |
| 6  |      |                      |     |    |
|    |      |                      |     |    |
|    |      |                      |     |    |

|                                         |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                           |                                                                     |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|                                         |                                                                                                                                                                                                                                                                                                                                                                                | 文件编号                                                                                                                                                                                                                                                                                                      |                                                                     |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                | 发布日期                                                                                                                                                                                                                                                                                                      | 2015年6月30日                                                          |
| SPECIFICATION 规格书                       |                                                                                                                                                                                                                                                                                                                                                                                | 第2版                                                                                                                                                                                                                                                                                                       | 1of2                                                                |
| 产品名称：轻触开关                               |                                                                                                                                                                                                                                                                                                                                                                                | 产品型号：CTS05A-A-250H1.5                                                                                                                                                                                                                                                                                     |                                                                     |
| 1:GENERAL SPECIFICATION 基本事项            |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                           |                                                                     |
| 1.1                                     | RATING (额定值): DC 12V 50mA                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                           |                                                                     |
| 1.2                                     | PRACTICAL TEMPERATURE RANEG: - 10℃~+50℃.<br>使用温度范围: 在-10℃~+50℃溫度内使用.                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                           |                                                                     |
| 1.3                                     | STANDARD ATMOSPHEIC CONDITIONS :<br>UNLESS OTHERWISE SPECIFIED. THE STANDARD RANGE OF ATMOSPHERIC<br>CONDITIONS FOR MAKING MEASUREMENTS AND TESTS ARE AS FOLLOWS:<br>(1) AMBIENT TEMPERATURE : 5℃ TO 35℃;<br>(2) RELATIVE HUMIDITY : 45% TO 85%;<br>(3) AIR PRESSURE : 86Kpa TO 106Kpa.<br>测试标准状态: 在沒有指定的情況下测试温度, 湿度, 气压如下:<br>(1)温度为5~35℃; (2)湿度为45~85%; (3) 气压为86Kpa~106Kpa. |                                                                                                                                                                                                                                                                                                           |                                                                     |
| 2. ELECTRICAL CHARACTERISTICS (电气性能规格): |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                           |                                                                     |
| ITEM                                    | 项目                                                                                                                                                                                                                                                                                                                                                                             | TEST CONDITIONS 测试条件                                                                                                                                                                                                                                                                                      | PERFORMANCE (DATA) 规格(数据)                                           |
| 2.1                                     | CONTACT<br>RESISTANCE<br>接触电阻                                                                                                                                                                                                                                                                                                                                                  | MEASURED AT 1KHz SMALL CURRENT(100 mA OR LESS)<br>在1KHz微小电流(100mA 以下)测试.                                                                                                                                                                                                                                  | 100mΩ MAX.<br>100毫欧以下.                                              |
| 2.2                                     | INSULATION<br>RESISTANCE<br>绝缘电阻                                                                                                                                                                                                                                                                                                                                               | APPLY A VOLTAGE OF 100V DC FOR 1 MIN.<br>THE FOLLOWING CONTACE TEST METHOD:<br>(1)BETWEEN BODY AND CONDUCTOR.<br>(2) BETWEEN CONDUCTORS NOT TO BE CONTAC.<br>输入100V DC电压1分钟, 按以下接触方法测试:<br>(1)接触端子之间. (2)胶座体和排脚之间.                                                                                        | 50MΩ MIN.<br>50兆欧以上.                                                |
| 2.3                                     | IELECTRIC<br>STRENGTH<br>耐电压                                                                                                                                                                                                                                                                                                                                                   | AC 250V(50-60Hz) FOR 1 MIN TRIP CURRENT:0.5mA<br>THE FOLLOWING CONTACE TEST METHOD:<br>(1)BETWEEN TERMINALS.<br>(2) BETWEEN INDIVIDUAL TERMINALS AND FRAME.<br>输入AC250V(50-60Hz) 电压, 1分钟感度电流为0.5mA,<br>接触测试方法如下:<br>(1)接触端子之间.<br>(2)外壳体和排脚之间.                                                            | WITHOUT DAMAGE TO<br>PARTS ARCING OR<br>BREAKDOWN ETC.<br>没有绝缘破坏等异常 |
| 3 .MECHANICAL CHARACTERISTICS (机械性能规格)  |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                           |                                                                     |
| ITEM                                    | 项目                                                                                                                                                                                                                                                                                                                                                                             | TEST CONDITIONS 测试条件                                                                                                                                                                                                                                                                                      | PERFORMANCE (DATA) 规格(数据)                                           |
| 3.1                                     | OPERATION<br>FORCE<br>动作力                                                                                                                                                                                                                                                                                                                                                      | VERTICAL COMPRESSION (垂直按压)                                                                                                                                                                                                                                                                               | PUSH FORCE (按压力度):<br>250gf ± 50gf                                  |
| 3.2                                     | TRAVEL TO<br>CLOSURE<br>动作行程                                                                                                                                                                                                                                                                                                                                                   | PLACING THE SWITCH SUCH THAT THE DIRECTION OF<br>SWITCH OPERATION IS VERTICAL AND THEN APPLYING<br>A STATIC LOAD TWICE THE OPERATING FORCE TO THE<br>CENTER OD THE KNOB, THE TRAVEL DISTANCE FOR THE<br>KNOB TO COME TO A STOP SHALL BE MEASURED.<br>开关垂直于操作方向放置, 以一个等于2倍按力的静负荷<br>施加于驱动件顶端中心, 测量顶端的移动距离. | 0.15 ± 0.1mm                                                        |
| 3.3                                     | STEM<br>STRENGTH<br>操作部 (柄)<br>强度                                                                                                                                                                                                                                                                                                                                              | APEX IN THE PRESS HANDLE ARBITRARY DIRECTION<br>PLUS(500g) STRENGTH TEST ,TIME IS 30 SECONDS.<br>在按柄任意一方向的先端加上 (500g) 力度测试, 时间为<br>30秒.                                                                                                                                                                   | 外观无异常, 满足于机械,<br>电气性能                                               |

|                     |                              |                                                                                                                                                                                                                                                   |                                                                                                                          |
|---------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
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|                     |                              | 发布日期                                                                                                                                                                                                                                              | 2015年6月30日                                                                                                               |
| SPECIFICATION 规格书   |                              | 第2版                                                                                                                                                                                                                                               | 2of2                                                                                                                     |
| 产品名称：轻触开关           |                              | 产品型号：CTS05A-A-250H1.5                                                                                                                                                                                                                             |                                                                                                                          |
| 4. DURABILITY(耐久性)： |                              |                                                                                                                                                                                                                                                   |                                                                                                                          |
| ITEM 项目             |                              | TEST CONDITIONS 测试条件                                                                                                                                                                                                                              | PERFORMANCE (DATA) 规格(数据)                                                                                                |
| 4.1                 | LIFE TEST<br>寿命试验            | AN ACTUATOR SHALL BE WITH A FORCE OF NO GREAT THAN 1 TIMES SWITH POWER TO 100,000 CYCLES AT A SPEED OF 120 CYCLES FOR 1 MIN. (TEST THE HEADBAND SPRING SHOCK ABSORBER OF)<br>操作者以每分钟120次的频率，施加不大于开关1倍的按力做 100,000次无负荷测试。(测试头带弹簧减震)                | 1)CONTACT RESISTANCE SHALL BE ≥300mΩ.<br>2)LIFETIME: 100,000次<br>1)接触电阻：≥300mΩ.<br>2)寿命：100,000次                         |
| 4.2                 | HEAT TEST<br>耐热实验            | THE SWITCH SHALL BE STORED AT A TEMPERATURE OF 85±2℃ FOR 96 HOURS.AND THEN IT SHALL BE SUBJECTED TO THE CONTROLLED RECOVERY CONDITIONS FOR 1 HOUR AFTER WHICH MEASUREMENT SHALL BE MADE.<br>放置在温度85±2℃中96小时后，再放置正常室温中1小时后测定.                      | THERE SHALL BE NO DAMAGE ONAPPEARANCE. MECHANICAL AND ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED.<br>外观无异常，满足于机械，电气性能 |
| 4.3                 | COLD TEST<br>耐冷实验            | THE SWITCH SHALL BE STORED AT A TEMPERATURE OF-25±3℃ FOR 96 HOURS.AND THEN IT SHALL BE SUBJECTED TO THE CONTROLLED RECOVERY CONDITIONS FOR 1 HOUR AFTER WHICH MEASUREMENT SHALL BE MADE.<br>放置在温度-25±3℃中96小时后，再放置正常室温中1小时后测定.                     |                                                                                                                          |
| 4.4                 | HUMIDITY TEST<br>潮湿实验        | THE SWITCH SHALL BE STORED AT A TEMPERATURE OF 40±2℃ AND A HUMIDITY OF 80% TO 85% FOR 96 Hr. THEN THE JACK SHALL BE MAINTAINED AT STANDARD ATMOSPHERIC CONDITION FOR 1 Hr FOR OTHER PROCEDURES.<br>放置在40±2℃相对湿度为80~85%环境中96小时后，再将样品放在正常室温中1小时后测定. |                                                                                                                          |
| 5.1                 | SOLDERING CONDITIONS<br>焊锡条件 | 1) HAND SOLDERING 手焊：<br>DIVCE 工具：SOLDER IRON 电烙铁.<br>270℃MAX., 3 sec Max<br>2) REFLOW SOLDERING 回流焊：≤250℃<br>                                                 | THERE SHALL BE NO DAMAGE ONAPPEARANCE. MECHANICAL AND ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED.<br>外观无异常，满足于机械，电气性能 |
| PREPARED制定：郭政       |                              | CHECKED 核对：倪云鹏                                                                                                                                                                                                                                    | APPROVED 审批：林志明                                                                                                          |