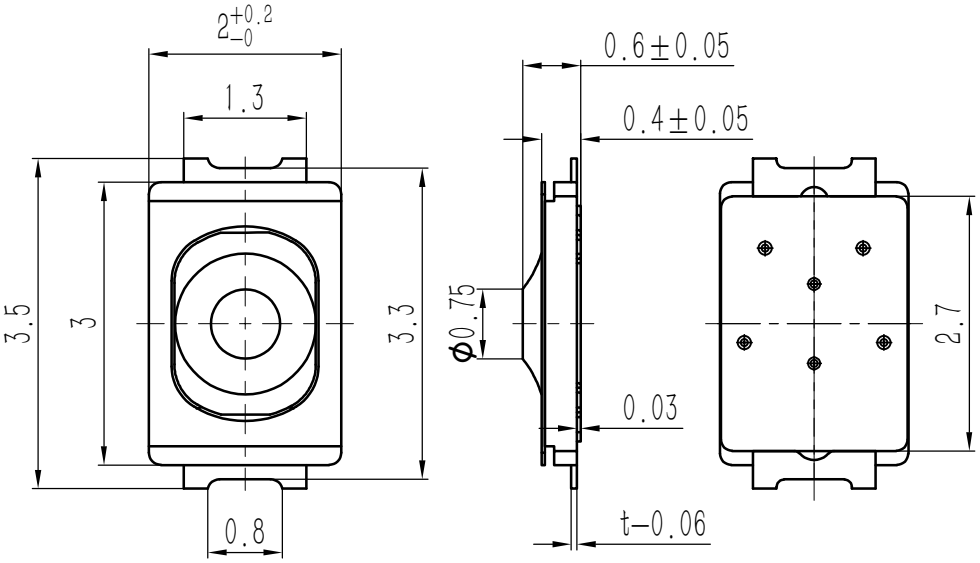
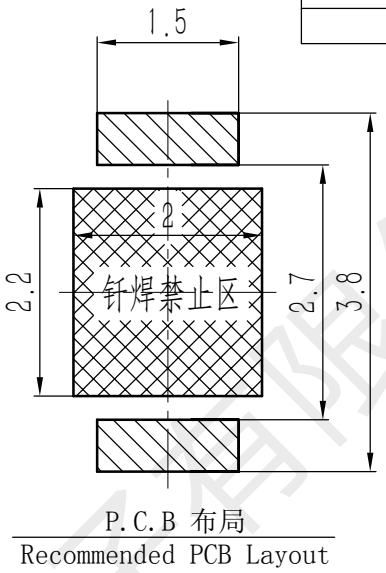
Version	ECM	Amendments	Modifier	Date Modified

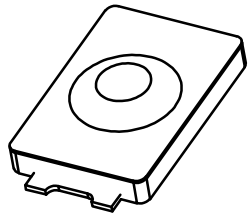




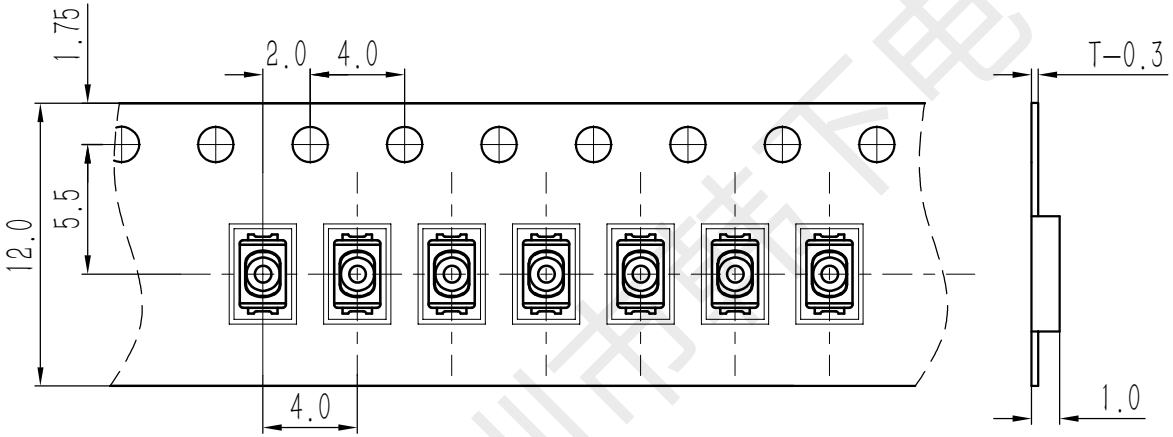
P.C.B 布局
Recommended PCB Layout

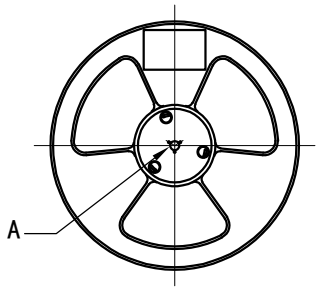


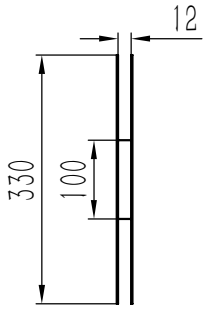
线路图
Circuit Diagram

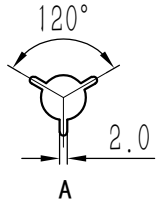


Remarks:
1. Rated current、Voltage: DC 12V 50mA
2. Contact resistance: ≤100mΩ
3. Insulation resistance: ≥100MΩ
4. The intensity of operations: 160±50gf
5. Life requirements: 300,000次
6. Withstand voltage: AC 250V 1分钟
7. Silk Screen design for solder volume in 0.03mm³～0.05mm³
8. All materials comply with RoHS standards









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	FINISHING
5	Button	PA9T	1	Black
4	Paster	Polyimide	1	White
3	Shrapnel	SUS	2	Ag Plating
2	Housing	PA9T	1	Black
1	Terminal	Phosphor copper	2	Ag Plating

General Tolerance	
X≤1	±0.05
1≤X≤5	±0.10
5≤X≤10	±0.15
X>10	±0.25
ANGLE	±3°
UNIT	mm

DRAWN	黄彬	Product Name	Tact Switch
AFFIRM	张伟	PART DESCRIPTION	HX TS2306A 160gf
AUDITING	罗小春	Model Number	
DATE	2022.05.18	Rev	SHEET
		A1	1:1

深圳市韩下电子有限公司

深圳市韩下电子有限公司
Shenzhen Hanxia Electronic Co., Ltd
Tel: 0755-23086569

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：HX TS2306A 160gf

贵公司承认印 Approal slgnatures

料 号/Part No.	签　章/Signatures

日期 Date:

拟制/Drawn	黄彬	深圳市韩下电子有限公司 工程专用章
审核/Check	张伟	
批准/Approved	罗小春	

深圳市韩下电子有限公司

深圳市韩下电子有限公司

产 品 规 格 书
PRODUCT SPECIFICATION

SIRLES			系列:TACT SWITCHES(轻触开关)
MODEL			型号:HX TS2306A 160gf
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 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.	100MΩ **min 100** 兆欧以上.
5B	WITHSTAND VILTAGE 耐电压	AC250V、50HZ、1 **min（imin(interrupting current**≤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 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.	100mΩ **Max** (100mΩ以下） .
5D	SWITCH CONNECTION 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 betwcen open not more than 10ms. 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 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: 0.15±0 .05mm
6C	DRIVE FORCE 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 was 160±50gf. 按键的开关驱动力为160±50gf

产 品 规 格 书
PRODUCT SPECIFICATION

6D	CONNECTION STRENGTH 接线端强度	A force of 1N being appling 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 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:300000ycles 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℃ **,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. 2. Contact resistance ≤ 100 M Ω 接触电阻≤100M Ω 3. **Insulation resistance ≥ 100** M Ω**.** 绝缘电阻≥**100** M Ω
7B	HUMIDITY RESISTANT 耐湿热	40±2℃ **in temperature and 95%RH ,Ruring thetest time without load; After testing the temperature should be 48h.** 经 40±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.**	
8.IOINTING EFFICIENCY 焊接性能			
8A	SOLDERABILITY 可焊性	Temperature260±5℃**;Duration;3**±0.5**S**:温度在 260±5℃**,** 持续 **3**±0.5**S.**	Solderability part should above 90% 可焊部分被焊料覆盖面应在 90% 以上.
8B	SOLDER—RESISTANT 耐焊剂性	Warm-up temperature:100℃,40**S,** 焊锡温度 260±5℃**,** 浸焊时间 **3**±0.5**S.**	Froth 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 耐焊接热	Jointing temperature: 260± 5 ℃ **,Duration of immersion: 5**±1**S.** 焊锡温度 260±5℃**,** 浸焊时间**5** ±1**S**	efficiency does not break 无损伤开关电气或机械动作性能.
8D	NORMAL JOLNTING TIMES 正常焊接次数		≤2times 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.** 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:-40to 85℃ 操作温度的范围：-40 to 85℃		
9C	Switch should install in a correct method. 开关应按正确的安装方法进行正确安装使用。		