

样品承认书

客户 (customer) : _____

产品描述 (escription) : _____ 按键开关

机种型号 (our model no) : _____ PS-5858D-L1

客户料号 (customer model) : _____

日期 (date) : _____ 2022-04-01

客户确认 approval signature:		
核准 approved by:	审核 checked by:	检测 tested by:

制造商 manufacturer:		
业务 sales:	核准 approved by:	设计 designed by:
杨凌峰	陈丽梅	李文魁



东莞市宏煜盛实业有限公司

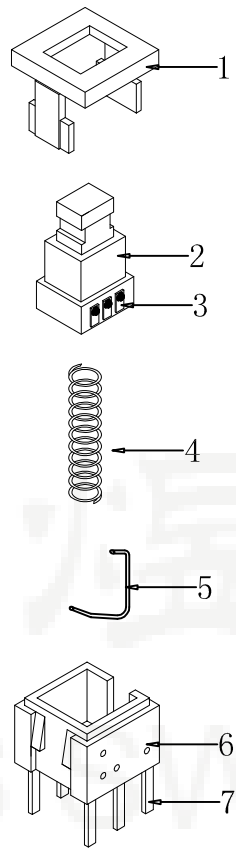
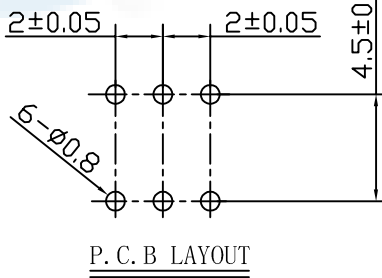
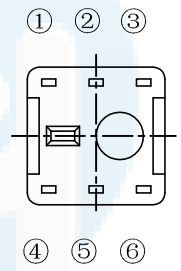
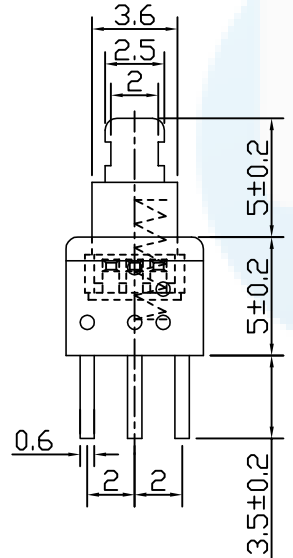
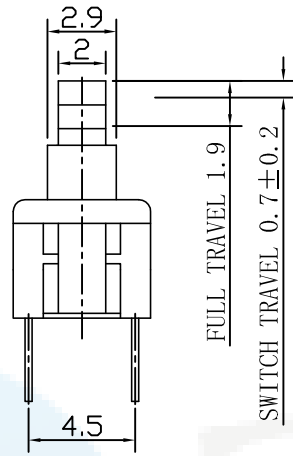
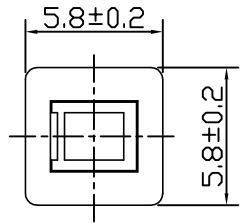
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ROHS
Compatible

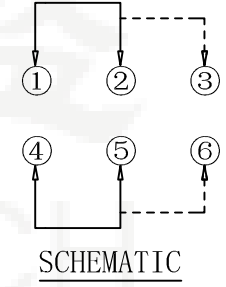


ELECTRICAL CHARACTERISTICS

1. RATING: DC 30V 0.1A
2. CONTACT RESISTANCE: 100mΩ MAX
3. INSULATION RESISTANCE: 100MΩ MIN
4. DIELECTRIC STRENGTH: AC 250V (50~60Hz) /60S

MECHANICAL CHARACTERISTICS

1. PRACTICAL TEMPERATURE RANG: -40℃~+85℃
2. OPERATING FORCE: 180±50gf 250±50gf
3. MECHANICAL LIFE: 30,000 cycles



NO.	DESCRIPTION	MATERIAL	QTY	PLATING
7	TERMINAL	BRASS	6	Ag PLATED
6	CASE	PPA	1	GRAY
5	LOCK PIN	SUS WIRE	1	NATURAL
4	SPRING	SUS WIRE	1	NATURAL
3	CONTACT	BRONZE	2	Ag PLATED
2	KNOB	PPA	1	WHITE
1	COVER	PPA	1	BLACK

DESIGN	Li Jinwei	SCALL	
DRAWING	Wu Qifa	UNIT	mm
CHECK	Zheng Jinxian	SIZE	A4: 210 * 297
APPROVAL	Liu Xiaohong	DATE	2020-06-10

DRAWG NO.	PS-5858D-L1
TITLE:	按键开关



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PAGE

1/5

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2018年6月15日

PRODUCT SPECIFICATION 产品承认书

文件版本
EDITION

第A版 第2次修订

Title 名称

按键开关
PUSHBUTTON SWITCH

产品料号
PART NO.

按键开关系列

1. General specification 基本事项

1.1 Switch action :

PUSHBUTTON SWITCH

开关种类 :

按键开关

1.2 Switch rating 最大额定值 :

D. C. 30V , 0.1A

1.3 Operation temperature range 使用温度试验范围 :

- 40~ + 85°C

1.4 Appearance and dimensions :

See outside drawing page

外形及尺寸 :

见外形尺寸图

1.5 General test condition (Tests and measurements shall be made under the following standard conditions unless otherwise specified): 正常测试条件(未有特殊说明量测在以下条件进行):

Ambient temperature 温度:

5 ~ 35°C

Relative humidity 相对湿度:

45 ~ 85%

Air pressure 气压:

86 ~ 106kPa(860~1060mbar)

However, if doubt arises on the decision based on the measured Values under the above-mentioned conditions, the following conditions shall be employed:

但是在对判定产生疑义时,按下述状态实施:

Ambient temperature 温度:

20±2°C

Relative humidity 相对湿度:

65±5%

Air pressure 气压:

86 ~ 106kPa(860~1060mbar)

2. Performance 性能

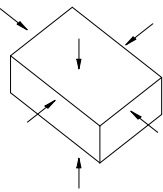
2.1 Electrical characteristics 电气性能

NO.	Item 项目	Test condition 试验条件	Performance 规格
2.1.1	Contact resistance 接触电阻	Push force: (Operation force) x 2. 测定时的负荷: 操作方向动作力基准值的2倍。 Measurement tool : Contact resistance meter 测定器: 微电流接触电阻计(1kHz, 20mV, 5~50mA)	100mΩ MAX 100mΩ 以下
2.1.2	Insulation resistance 绝缘电阻	D. C. 100V(Between terminals) (端子间)	100MΩ min 100MΩ 以上
2.1.3	Withstand voltage 耐电压	Apply certain voltage (50-60Hz, AC 250V) for 1 minute between adjacent contacts of the connector with 2mA leakage sensitivity. 输入一定电压(50-60Hz,电压值 AC 250V)1分钟,漏电流为2mA,测试邻近端子间.	No arcing , break down and damaging insulation. 没有绝缘破坏. 电弧等异常.

2.2 Mechanical Characteristics 机械性能

2.2.1	Operation force 动作力	Operate the keystroke of the switch and then increase press strength gradually, Measured maximum operation force while the travel of the switch is full. 逐渐施力操作开关按键, 测量开关到达全部工作行程时所需的最大操作力度。	Push force: 180±50gf 按压力: 180±50gf
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 Dongguan hongyusheng Industry Co., Ltd		文件编号 FILE NO.	PS-5858D-L1	页码 PAGE	2/5
		发布日期 DATE OF ISSUE	2018年6月15日		
PRODUCT SPECIFICATION 产品承认书		文件版本 EDITION	第 A 版 第 2 次修订		
Title 名称	按键开关 PUSHBUTTON SWITCH	产品料号 PART NO.	按键开关系列		

NO.	Item 项目	Test condition 试验条件	Performance 规格
2.2.2	Travel to closure 动作行程	Operate the keystroke of the switch vertically, the travel distance of keystroke moving from its free position to maximum moving distance shall be measurement. 垂直操作开关按键，量测开关顶端最大移动距离。	See detail drawing page. 见产品图纸
2.2.3	Conditions for reflow 回流焊焊接	Soldering area: t/2 of P.W.B. thickness (P.W.B:T=1.6) 焊接面积：印刷基板的1/2 厚度处 (P.W.B:T=1.6) Soldering temperature : 250± 5°C 焊接温度：250± 5°C soldering time : 3 ±1s 焊接时间：3 ±1 秒 【适用于贴片式产品】	No damage (electrical and mechanical) 无异常。 (电气、机械特性)
2.2.4	Wave-soldering 波峰焊焊接	Terminals shall be dipped in the solder bath at 240±5°C for 3-5s (seconds without additional force for terminals) 端子焊接部分浸入焊炉，锡炉温度 240±5°C，焊接时间 3-5 秒。（焊接时不可于端子施加外力）。 插件物料手工焊接时需保证烙铁设置温度在 350°C 内，焊接时间 3 秒内，烙铁头接触引脚与元件本体距离要求为 2~4MM 之间； 【适用于插件式产品】	Appearance should be not damaged, electrical and mechanical characteristics shall be satisfied 本体无变形，能满足于机械、电气性能。
2.2.5	Solderbility 可焊性	After sprated flux 涂上助焊剂后 temperature :230± 5°C 温度：230± 5°C soldering time :2±0.5 sec 焊接时间：2±0.5 秒	90% or more of surface area of the portion immersed in solder shall be covered by new solder 90% 或更多的浸焊面积能被焊锡覆盖。
2.2.6	Shock 耐冲击性	Measure after test at a condition below 在下列条件下进行测试后的量度 Peak acceleration----80G 冲击加速度-80G Test time-6direction ,each 3 times total 18times 测试次数-6 个方向，各 3 次共计 18 次。 	No.2.1 and 2.2.1 to 2.2.2 shall be satisfied 第2.1 及2.2.1—2.2.2 都应符合要求

 Dongguan hongyusheng Industry Co., Ltd		文件编号 FILE NO.	PS-5858D-L1	页码 PAGE	3/5
		发布日期 DATE OF ISSUE	2018年6月15日		
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2.3 Durability characteristics 耐久性

2.3.1	Endurance (switching action) 耐久特性 (开关寿命)	Switch shall be operated continuously at about 15-18 cycles /min without load. 开关在寿命试验设备上以约 15-18 次 / 分钟的速度连续被操作, 具体次数见规格图示。 Life test:30, 000cycles 寿命: 30,000 次	Contact resistance 200mΩ max 接触电阻 200mΩ 以下 Bouncing: 10 ms max 触点抖动: 10 秒以下 Variation rate of operation force shall be within ±30%to the value before testing 动作力的变化范围在初始值的 ±30%以内 No. 2. 1. 2 and 2. 2. 2 shall Be satisfied 满足 2. 1. 2 和 2. 2. 2 项
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2.4 Climatic characteristics 耐候性能

No.	Item 项目	Test condition 试验条件	Performance 规格
2.4.1	Cold test 耐寒性	The switch shall be stored at a temperature of $-25\pm 2^{\circ}\text{C}$ for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour. 放置在温度 $-25\pm 2^{\circ}\text{C}$ 环境中 96 小时后, 再置于正常条件下 1 小时后测定。	Appearance, electrical and mechanical characteristics shall be satisfied 外观, 机械及电气性能均符合要求。
2.4.2	Heat test 耐热性	The switch shall be stored at a temperature of $80\pm 2^{\circ}\text{C}$ for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour. 放置在温度 $80\pm 2^{\circ}\text{C}$ 环境中 96 小时后, 再置于正常条件下 1 小时后测定。	Appearance, electrical and mechanical characteristics shall be satisfied. 外观, 机械及电气性能均符合要求。



文件编号 FILE NO.	PS-5858D-L1	页码 PAGE	4/5
发布日期 DATE OF ISSUE	2018年6月15日		
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NO.	Item 项目	Test condition 试验条件	Performance 规格													
2.4.3	Temperature cycle 温度循环	<p>(1) Test cycles :20 cycles 试验周期: 20 个周期</p> <p>(2) Standard condition after test :1h 试验后的放置条件: 1 小时</p> <table border="1"> <thead> <tr> <th></th> <th>temperature 温度</th> <th>duration of test 持续时间</th> </tr> </thead> <tbody> <tr> <td>1 cycle 一次</td> <td>20±2°C</td> <td>1h</td> </tr> <tr> <td rowspan="3">循环</td> <td>-25±2°C</td> <td>1h</td> </tr> <tr> <td>20±5°C</td> <td>1h</td> </tr> <tr> <td>80±5°C</td> <td>1h</td> </tr> </tbody> </table>		temperature 温度	duration of test 持续时间	1 cycle 一次	20±2°C	1h	循环	-25±2°C	1h	20±5°C	1h	80±5°C	1h	<p>No damage Electricalandmechanical 无异常 电气、机械性能</p>
	temperature 温度	duration of test 持续时间														
1 cycle 一次	20±2°C	1h														
循环	-25±2°C	1h														
	20±5°C	1h														
	80±5°C	1h														
2.4.4	Humidity test 耐湿性	<p>The switch shall be stored at a temperature of 40 ± 2°C, relative humidity 45~85% for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour (Wipe out water drip).</p> <p>放置于温度 40±2°C, 相对湿度为 45~85% 环境中 96 小时后, 再置于正常条件下 1 小时后测定 (注意要擦去水滴)。</p>	<p>Appearance, electrical and mechanical characteristics shall be satisfied.</p> <p>外观, 机械及电气性能均符合要求。</p>													
2.4.5	Salt mist 盐雾实验	<p>The switch shall be checked after following test: 试件在下述实验后测量:</p> <ol style="list-style-type: none"> 1. Temperature: 35±5°C 1. 温度: 35±5°C 2. Salt solution: 5±1%(Solids by mass) 2. 盐溶液浓度: 5±1% (质量百分比), 3. Duration: 12 hours, 3. 试验时间: 12 小时, 4. After immersing, salt deposit shall be removed by running water. 4. 试验后, 将盐沉积物用水冲掉。 	<p>No remarkable corrosion shall be recognized in metal parts.</p> <p>在金属件上没有严重腐蚀斑点。</p>													

 Dongguan hongyusheng Industry Co., Ltd		文件编号 FILE NO.	PS-5858D-L1	页码 PAGE	5/5
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3. Precaution 注意事项 3.1 Soldering condition 浸焊条件

ITEM项目	CONDITION条件
Preheat temperature 预热温度	110°C max (Embilomental temperature of soldering surface of P. W. E) 110°C 以下(印刷基板焊锡面周围的温度)
Preheat time 预热时间	60 sec, max 60 秒以内
Area of flux 助焊剂的面积	1/2 max of P. W. B. thickness 印刷基板厚度的 1/2 以内
Temperature of solder 焊锡温度	240°C max 240°C 以下
Time of immersion 浸焊时间	Within 5 sec 5 秒以内
Soldering number 浸焊次数	Within 2 times (But should bring down heat of the first soldering) 2 次以内 (但应把第一次焊锡的温度降下来)
Printed wiring board 印刷基板	Single sided copper-clad laminates 单面铜箔

(1) After switches were soldered, please be careful not to clean switches with solvent
开关浸焊后,注意不要用溶剂清洗.

(2) In the case of using soldering iron, soldering conditions shall be 350°C max and 3 sec. max
在使用烙铁的情况下,焊锡温度应在350°C 以下、3 秒以内.

(3) Right after switches were soldered; please be careful not to load on the knobs of switches.
浸焊后,注意不要在顶部施加负荷.

3.2 Design instructions(设计中应注意的事项)

(1) Follow recommended P. W. B. piercing plan in outside drawing page. 印刷基板的安装孔尺寸参见产品图.

(2) Design key top as fig. Design inclination of key top 4 deg. max as fig. (Recommended operating condition.)
击键部设计如图,击键部倾斜度如图在4 度以内.(参见操作条件).

3.3 Note(注意点)

(1) Please be cautious not to give excessive static load or shock to switches.
注意不要施加超负荷的压力或晃动开关.

(2) Please be careful not to pile up P. W. B. after switches were soldered.
开关焊接以后,印刷基板注意不要叠放.

(3) Preservation under high temperature and high humidity or corrosive gas should be avoided especially. When you need to preserve for a long period, do not open the carton.
保管时尤其应注意避开高湿高温和有腐蚀性气体的环境.如需长时间保存,请不要打开包装箱.

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核准: 郑金现