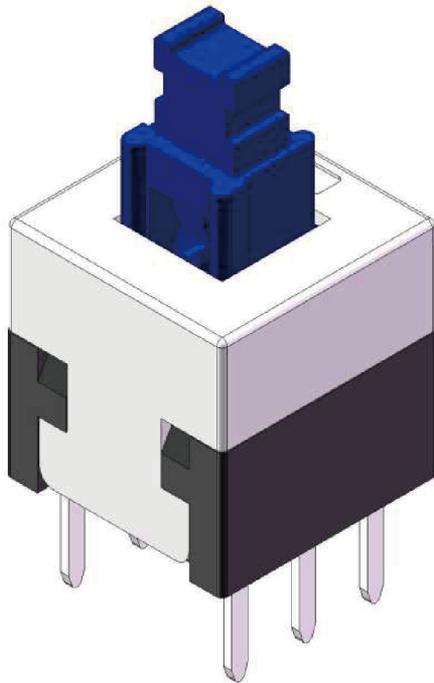


SZGOZIE[®]

Product Specificaion

Part No (TITLE)	P1080D10011181
name (PART NO)	080 Self-locking 6-pin switch 180gf
Approved (APPRO.)	



1. 一般特性 General Characteristics

- 1.1 额定值(Rating Value): DC30V 0.1A
 1.2 工作温度(Work Temperature Range): $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$
 1.3 存贮温度(Store Temperature Range): $-20^{\circ}\text{C} \sim 80^{\circ}\text{C}$
 1.4 正常测试条件(未有特殊说明量测在以下条件进行):

General test condition (Tests and measurements shall be made under the following standard conditions unless otherwise specified):

正常温度: $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$ 相对湿度: 45%~85% RH 气压: 8,600~10,600 帕
 Temperature: $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$ Relative humidity: 45%~85% Air pressure: 8,600~10,600 pa

2. 产品外观及尺寸要求 Appearance & Dimension Requirement

- 2.1 产品外形结构紧凑, 无配合不良.

The structure of product is compact, and assembly of parts has no badness.

- 2.2 产品塑胶部件无缩水. 披锋. 欠注. 斑点. 破损或变形现象.

The plastic parts of product have no defects such as very serious shrink, scarcity, fleck, disrepair, transmutation, etc.

- 2.3 产品引脚无氧化. 脏污. 变形. 毛刺或电镀不良.

Lead feet have no defects such as oxidation, smudge, disrepair, burr, defects on plating.

- 2.4 开关操作顺畅, 节奏感强, 无明显卡塞现象, (自锁开关锁芯锁住后, 允许导芯倾斜正负 2°)

Operating switch is unhindered, rhythmmed, and there is not palpable clag. (After the keystroke is locked, it is normal that the keystroke tilt to one side plus or minus 2°)

- 2.5 产品结构及尺寸参见产品规格图纸.

Construction and dimensions: Refer to individual product drawing.

3. 电气特性 Electronic Characteristics

No.	项目 Item	测试方法 Test Method	测试设备 Equipment	特性要求 Requirements
3.1	接触阻抗 Contact Resistance	在低电流 ($\leq 100\text{mA}$) 条件下测试. Measured at low current (100mA or less).	低电阻测试仪 Low Resistance Meter	$100\text{m}\Omega$ max
3.2	绝缘阻抗 Insulation Resistance	测试相邻引脚之间, 引脚与外壳之间的绝缘阻抗 (DC 500V). Measurement shall be made between adjacent terminals, between terminal and shell (DC 500V).	绝缘测试机 Insulation Resistance Tester	$100\text{M}\Omega$ min
3.3	耐压测试 Dielectric Withstand Voltage	输入一定电压 (50-60Hz, 电压值 AC 500V) 1 分钟, 漏电流为 2mA, 测试邻近端子间. Apply certain voltage (50-60Hz, AC 500V) for 1 minute between adjacent contacts of the connector with 2mA leakage sensitivity.	耐压测试机 Puncture Tester	没有绝缘破坏. 电弧等异常. No arcing, breakdown and damaging insulation.

4. 机械特性 Mechanical Characteristics

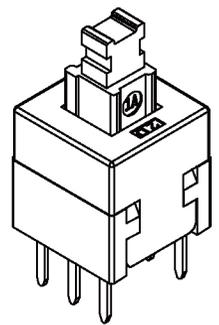
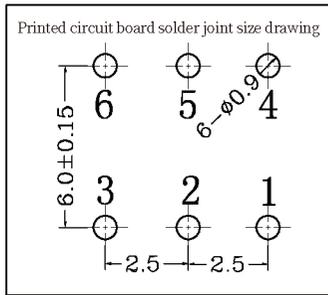
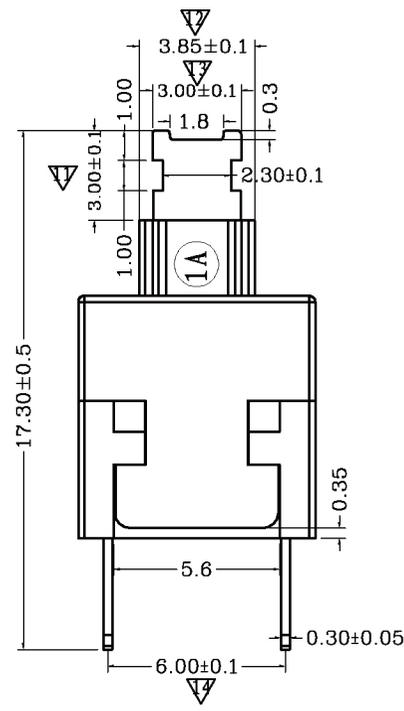
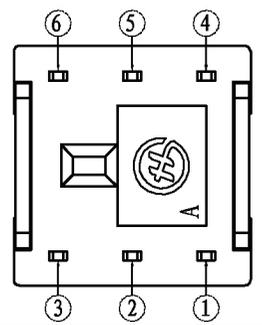
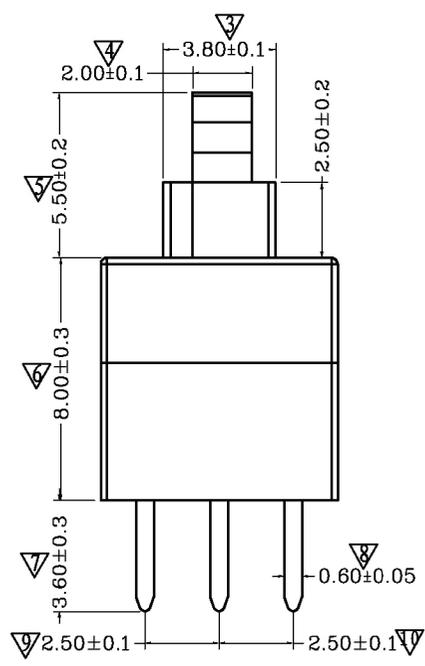
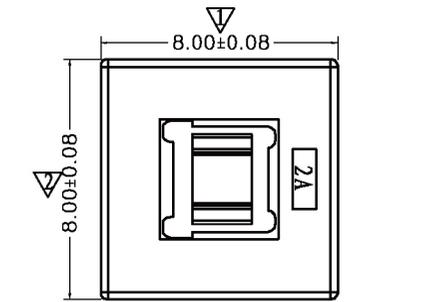
No.	项 目 Item	测试方法 Test Method	测试设备 Equipment	特性要求 Requirements
4.1	操 作 力 Operation Force	逐渐施力操作开关按键，测量开关到达全部工作行程时所需的最大操作力度。 Operate the keystone of the switch vertically, and then increase press strength gradually, Measured maximum operation force while the travel of the switch is full.	推拉力计 Push-Pull Force Gauge	见图面 See Drawing
4.2	行 程 Full travel	垂直操作开关按键，量测开关顶端最大移动距离。 Operate the keystone of the switch vertically, the travel distance of keystone moving from its free position to maximum moving distance shall be measurement.	PT 治具 游标卡尺 PT Tester Vernier Caliper	见图面 See Drawing
4.3	静 止 强 度 Static Strength	开关的动作方向为垂直放置开关，在推柄动作方向施加 3KG 的静负荷，60 秒时间。 Placing the switch such that the direction of switch operation is vertical, a static load of <u>3</u> kgf shall be applied in the direction of stem operation for a period of <u>60</u> seconds.	推拉力计 Push-Pull Force Gauge	无机械的和电气的 损伤迹象 There shall be no sign of damage mechanically and electrically.

5. 可靠性测试 Reliability trial

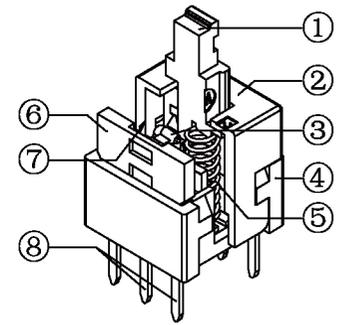
No.	项 目 Item	测试方法 Test Method	测试设备 Equipment	特性要求 Requirements
5.1	盐雾实验 Salt Mist Test	试件在下述实验后测量： 1. 温度： $35 \pm 5^{\circ}\text{C}$ 2. 盐溶液浓度： $5 \pm 1\%$ (质量百分比)， 3. 试验时间：24 小时， 4. 试验后，将盐沉积物用水冲掉。 The switch shall be checked after following test: 1. Temperature: $35 \pm 5^{\circ}\text{C}$ 2. Salt solution: $5 \pm 1\%$ (Solids by mass) 3. Duration: 24 hours, 4. After immersing, salt deposit shall be removed by running water.	盐雾试验机 Salt Spray Tester	在金属件上没有严重 腐蚀斑点。 No remarkable corrosion shall be recognized in metal parts.

5. 可靠性测试 Reliability trial

No.	项 目 Item	测试方法 Test Method	测试设备 Equipment	特性要求 Requirements
5.2	机械寿命 Operation Life Without Load	<p>开关置于寿命试验机上连续工作，工作频率低于每分钟60次，工作条件为：DC12V 50mA.</p> <p>The switch would be operated continuously by auto machine at maximum rate of 60 cycles per hours on conaition that the voltage is 12V and the current is 50mA.</p>	<p>寿命试验机</p> <p>Life Tester</p>	<p>寿命：100.000次</p> <p>实验后： 接触电阻<u>10Ω</u> Max. 绝缘电阻：<u>10MΩ</u> Min 操作力：变化在±50%内 开关外观及结构无损坏。</p> <p>Life test:100.000cycles After test: Contact resistance: <u>10Ω</u> Max Insulation resistance: <u>10MΩ</u> Min Operating force: Change should be within ±50% of specified value. No abnormalities shall be recognized in appearance and construction.</p>
5.3	耐焊接热 Resistance to Soldering heat	<p>端子焊接部分浸入焊炉，焊炉温度260±5℃，焊接时间5±1秒。（焊接时不可于端子施加外力）。</p> <p>Terminals shall be dipped in the solder bath at 260±5℃ for 5±1 seconds without additional force for</p>	<p>控温锡炉</p> <p>Solder Stove</p> <p>Solder</p>	<p>本体无变形，能满足于机械、电气性能。</p> <p>Appearance should be not damaged, electrical and mechanical characteristics shall be satisfied.</p>

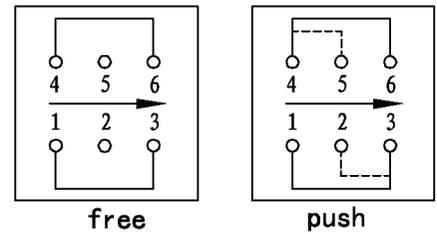


Comply with EU WEEE and ROHS regulations



technical parameter

1. Rated current:DC30V 0.1A
2. Contact impedance:100mΩ Max
3. Insulation impedance:100mΩ Min[DC500V]
4. Withstand voltage:AC 500V [50-60Hz] Lasts 1 minute
5. Operating force:180±50gf
6. Lifetime:100000 times
7. Travel:2.4±0.3mm
8. Operation type: self locking:



Circuit diagram

⑧	Terminal	6	brass	silver	
⑦	Reed	2	Phosphor bronze	Fu Yin	
⑥	Injection molding terminal	2	PA66	black	
⑤	Spring	1	Steel wire	material	
④	Base	1	PBT	black	
③	crochet hook	1	Steel wire	material	
②	Lid	1	POM	White	
①	Guide core	1	POM	Yel low	
	Product number	Terminal number	quantity	Material	Remark

					angle	±2°	design	date		
					30 - 20	±0.30	Audit	date		
					20 - 10	±0.25	Approved	date		
	A0		NEW		L<=10	±0.20				
			illustrate				Proportion	1:1	unit	mm

SZGOZIE®



Precautions for the use of key switches

In order to prevent safety accidents and related quality problems,
please strictly observe the following prohibited items and precautions during use

1. the use of the conditions of prohibition and precautions!

- (1) This product is designed and manufactured on the premise of dc resistive load, other loads (inductive load (L), capacitive load (C)) are used, please confirm separately.
- (2) When operating the switch, if the specified load is applied, the switch will be damaged. Please be careful not to apply more force than specified on the switch
- (3) when loading and unloading the knob, please lift the self-locking state, in the locked state, the self-locking mechanism will be deformed.
- (4) Attention should be paid to the position of pressing into the trip as close as possible to the whole trip.
- (5) During installation, please insert the product body into the specified installation surface, and make it reach the horizontal state. If it cannot reach the horizontal state, it will lead to bad action
- (6) If used in dusty environment, dust will enter from the opening part, resulting in poor contact failure, please consider this in advance when designing the whole machine
- (7) If the surrounding material of the switch machine produces corrosive gas, it may cause poor contact and other phenomena, so please confirm fully in advance.
- (8) Please design the load of loading and unloading button within the range of switch operating strength specifications.
- (9) When switching side by side or adjacent to other components, in order to prevent flux overflow and ensure the absolute edge distance, please keep a minimum distance of 1m with the switch
- (10) please pay attention to the design and use, in the state of integrated installation, do not often impose external stress on the solder joint, which is the cause of the printed circuit board pattern peeling, solder joint cracks
- (11) Before installing the aD, ensure that the SWITCH status is ON and OF
- (12) button switch using contact lubricant, structure might have to switch on the outside, in the design, the sufficient conditions of use, must confirm and considerations
- (13) please note, do not often in the lateral pressure to bear on the push rod (500 m) above under the state of the switch terminal bend 00 operation can not be installed to the PCB.
- (15) The performance of the switch may be affected under the following circumstances and conditions, so please do not use it
 - Oxygen (C12), sulfur dioxide (SO₂), hydrogen sulfide (H₂S), nitrogen oxide (NO_x) and other corrosive gases
 - Residual water, condensation environment, fog droplets deposition
 - In water, brine, oil, chemical reagents, organic solvents and other liquids
 - Places with direct sunlight
 - Places with more dust and dust
- A0) When mounting the printed circuit board of the switch and the built-in installation, do not impose impact and load on the push rod

2, the circuit conditions for attention!

- (1) In order to ensure reliability, please use within the rated range specified in the product specifications
- (2) In order to prevent installation misoperation caused by vibration during switch NO and OFF conversion and external flutter, please consider the following in design.
 - Repeated reads (microcomputer processing) (recommended: more than 3 reads at a period of more than 3ms).
-) Setting integral circuit (recommended: over 6ms)
- (3) For 2 circuit type products, if the circuit is connected side by side, it will not be able to get the conversion time specified in the specification (non-short circuit, etc.)

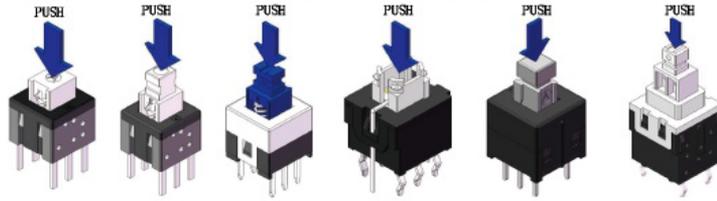
3. Prohibition of welding and matters needing attention!

This series of switches are only suitable for immersion welding and manual welding!

- (1) For products with self-locking mechanism, do not weld in the locked state, please weld in the state of unlocking. If welding is carried out in the locked state, the parts of self-locking mechanism may be deformed due to the heat during welding (including preheating).
- (2) When welding with soldering iron, the welding conditions will change due to the shape of the soldering iron head, wattage, thickness of the circuit board, etc. Please refer to the specification of solder heat resistance and make a full confirmation in advance.
- (3) when using through-hole printed circuit board and circuit board other than recommended, due to the influence of thermal stress will change, the influence of thermal stress of switch is greater than that of single-sided circuit board, so please confirm fully the welding conditions in advance.
- (4) When welding twice, please do it after the first welding part is restored to normal temperature. Continuous heating may cause deformation of the peripheral part, loosening of the terminal, shedding and electrical characteristics (referring to non-wave soldering and reflow soldering). The switch that can be used for wave soldering and reflow soldering can only be welded once.
- (5) As for the setting of welding conditions, please proceed according to the actual conditions of mass production.
- (6) When welding terminals, do not apply load to terminals. If load is applied to terminals, loosening, deformation and electrical degradation may occur due to different conditions, please pay attention to it during use (3) Please do not let flux flow from around the printed circuit board, above the switch.
- (9) Some switches can be used for reflow furnace (surface mount) occasions (please select according to the requirements of the specification)

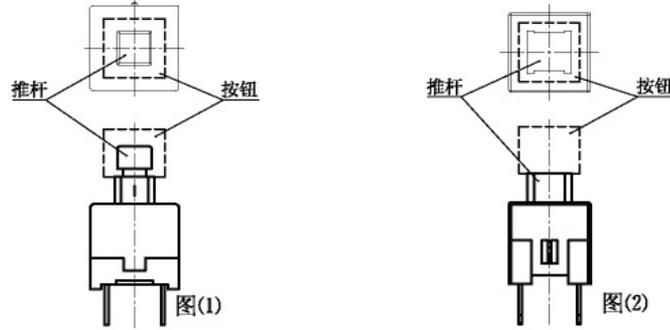
4. 有关安装上的禁止及注意事项!

(1) 工作时, 不同类型产品原则上请操作推杆的中心.



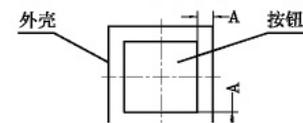
(2) 装配操作有装配位置(图1)和无装配位置(图2)的按钮时, 请分别对待.

● 请尽量将有装配位置和无装配位置按钮的装配位置设计在推杆的中心.



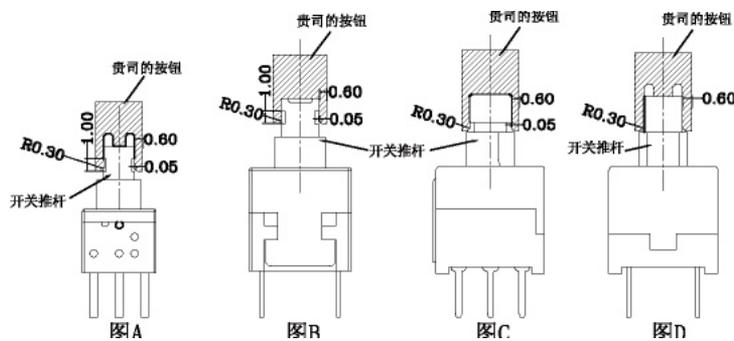
(3) 请尽量将外壳和按钮的间隔A设计的窄一些.

A尺寸=0.1-0.3mm (单边时-0.06mm以下)



(4) When the switch is locked, do not pull the push rod
This is the cause of broken autogenous functions and abnormal actions such as unlocking. Especially to push rod loading switch, integrated assembly and disassembly, please operating under the release status (applicable to self-locking switch) if your company will switch the push rod and through the strength of the buttons (knob) set to live under 10 n, locking structure will not be prone to damage, the shape of the button on your company, the suggestion of decline

A, D, C, D shape, size for discussion. (When importing, please fully



conditions and matters needing attention!

As vulcanization and oxidation of contacts and terminals may affect contact characteristics and solderability, please note the following

① Do not open the switch during storage and transportation, but keep it at normal temperature and humidity

Please do not store in places with high temperature, high humidity and corrosive gases. Please take proper measures to protect and seal the remaining products after opening.