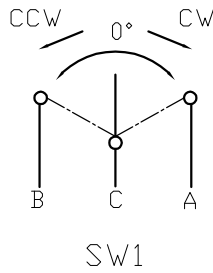
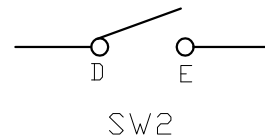
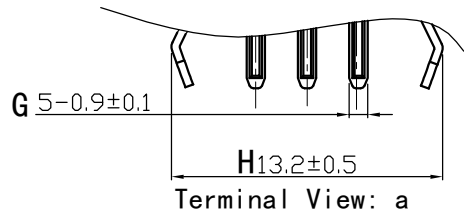


CW ← → CCW  
CODE TALE (▨) ON

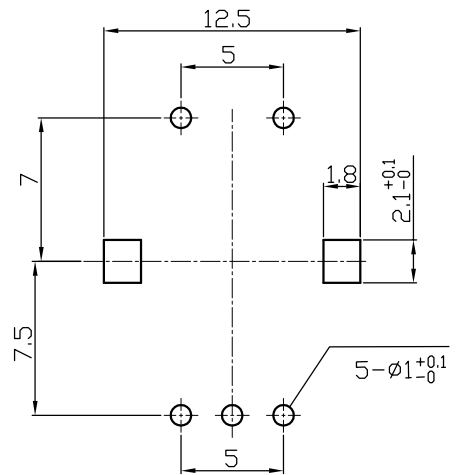
Terminal	Angle	45°	23°	0°	23°	45°
A		▨				
C		▨	▨	▨	▨	▨
B						▨

Circuit Diagram



L	15	
F	7	

注：A-H为重点管控尺寸



P. C. B. MOUNTING DETAIL

宏彦科技（东莞）有限公司 HongYan Technology (Dongguan) Co., Ltd.			品名		RS11B 5ABD15F7	
			图号		RS11B-001	
日期	修改记录		绘制人	未标注尺寸公差	比例	3:1
2021/11/16	初始发行受控		谢地洋	L ≤ 10	± 0.3	单位 mm
核准	审核	制图	10 < L ≤ 100	± 0.5	版本	A0
			100 ≤ L	± 0.8		
			ANGLE	± 5°		

## RS11系列规格书

### RS11 SERIES SPECIFICATION

#### 1. 一般事项General

##### 1-1. 适用规格 Scope

本规格书适用于微小电流回路的电子设备，属11型复位开关。

This specification applies to 11 mm size low-profile self-return switch for microscopic current circuits, used in electronic equipment.

##### 1-2. 标准状态Standard atmospheric conditions

除另有规定外，测量应在以下状态下进行：

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and test is as following limits:

温度 Ambient temperature : 15°C to 35°C

相对湿度 Relative humidity : 25% to 85%

气压 Air pressure : 86kpa to 106kpa

如果对在上述所提到的条件中所做的实测值有疑问的话，应使用以下条件进行测量：

If doubt arises on the decision based on the measured values under the above-mentioned conditions, the following conditions shall be employed:

温度 Ambient temperature : 20±1°C

相对湿度 Relative humidity : 63% to 67%

气压 Air pressure : 86kpa to 106kpa

##### 1-3. 使用温度范围

Operating temperature range : -30°C to +80°C

##### 1-4. 保存温度范围

Storage temperature range : -40°C to +85°C

#### 2. 构造Construction

##### 2-1. 尺寸 Dimensions

见所附成品图 Refer to attached drawing

#### 3. 额定值 Rating

##### 3-1. 额定电压

Rated voltage: DC 5V

##### 3-2. 最大额定电流（阻抗负载）

Maximum operating current (resistive load) 10mA

#### 4. 电气性能 Electrical Characteristics

项目 ITEM	条件 CONDITIONS	规格 SPECIFICATIONS
4-1. 开关特性 Switching characteristics	详见所附成品图 Refer to attached drawing	单刀双掷，自动复位。 S. P. D. T Automatic reset.
4-2. 绝缘阻抗 Insulation resistance	在端子和支架间施加电压 250V DC。 Measurement shall be made under the condition which a voltage of 250V DC is applied between individual terminals and frame.	100MΩ 以上 100MΩ Min
4-3. 耐电压 Dielectric strength	在端子和支架间施加AC300V电压1分钟 A voltage of 300V AC shall be applied for 1 minute between individual terminals and frame.	不得有绝缘破坏 Without arcing or breakdown.
4-4. 端子间接触阻抗 Contact resistance	出力信号处于ON时安定状态条件下测定。 Measurement shall be stable condition which a output signal is ON.	1Ω 以下 1Ω Max

## RS11系列规格书

### RS11 SERIES SPECIFICATION

5. 机械性能 Mechanical Characteristics		
5-1. 全回转角度 Total rotational angle		90° ±5°
5-2. 旋转力矩 Rotational torque		3~20mN.m. (30~200gf.cm)
5-3. 轴的推拉强度 Push-pull strength of shaft	在轴端, 沿轴向施加 8Kg 的静负荷力推和拉各10秒钟 (产品焊锡固定在PCB上。) Push and pull static load of 8Kg shall be applied to the shaft in the axial direction for 10s. (After soldering of the PC board)	轴向虚位间隙0.4以内 Shaft play in axial direction 0.4 Max
5-4. 端子强度 Terminal strength	在端子的先端施加5N (500g) 的力1分钟。 A static load of 5N(500g)be applied to the tip of terminals for 1 minute in any direction.	端子无损坏, 无过度的松动. 允许变形. Without damage or excessive looseness of terminals. terminal bend is permitted.
5-5. 止动强度 End stop strength		3.0Kgf以上 3.0Kgf Min
5-6. 轴向间隙 Shaft play in axial direction		0.4mm 以下 0.4mm Max
5-7. 轴摆动 Shaft wobble	在距离轴顶端5MM处, 沿径向瞬间施加50mN.m(500gf.cm)的力测试 A momentary load of 500gf.cm should be applied at the point 5mm from the tip of the shaft in a direction perpendicular to the axis of shaft.	0.7*L/30mm p-p 以下 (L: 指安装平面到轴的柄端的距离。) 0.7*L/30mm p-p Max L:Distance between mounting surface and measuring point on the shaft
5-8. 轴的回转方向摆动 Shaft play in rotational wobble	用角度板测定。 Testing by angle board.	5° 以下 5° Max

## RS11系列规格书

### RS11 SERIES SPECIFICATION

6. 耐久性能 Endurance Characteristics		
项目 ITEM	条件 CONDITIONS	规格 SPECIFICATIONS
6-1. 回转寿命 Rotational life	<p>在无负荷条件下轴以600~1000周/小时速度回转，24小时连续5000~8000次。</p> <p>The shaft of switch shall be rotated at a speed of 600~1000cycles/H without electrical load, after with measurements shall be made. (5000 to 8000 continuous cycles for 24 hours.)</p>	<p>15,000±200周。 15,000±200cycles.</p> <p>尚余有轻微定位感。 端子间接触阻抗200Ω以下 Detent feeling has to remains Contact resistance 200ΩMax</p>
6-2. 耐湿性 Damp heat	<p>温度40±2℃，湿度90~95%的恒温恒湿槽中放置96±4小时后，在常温、常湿中放置1.5小时后测试。</p> <p>The switch shall be stored at temperature of 40 ±2℃ with relative humidity of 90% to 95% for 96±4H in a thermostatic chamber. And the switch shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.</p>	<p>所有项应满足初期规格 Specifications in clause all items is shall be satisfied.</p>
6-3. 耐热性 Dry heat	<p>温度85±3℃的恒温箱中放置96±4小时，常温、常湿放置1.5小时后测试。</p> <p>The switch shall be stored at a temperature of 85±3℃ for 96±4H in a thermostatic chamber. And then the switch shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.</p>	<p>所有项应满足初期规格。 Specifications in clause all items is shall be satisfied.</p>
6-4. 低温特性 Cold	<p>温度-40±3℃的恒温箱中放置96±4小时，常温、常湿放置1.5小时后测试。</p> <p>The switch shall be stored at a temperature of -40±3℃ for 96±4H in a thermostatic chamber. And then the switch shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.</p>	<p>所有项应满足初期规格。 Specifications in clause all items is shall be satisfied.</p>
6-5. 焊锡耐热性 Resistance to Soldering heat	<p>槽焊 Dip soldering. 使用基板:t=1.6mm的单面覆铜板。 Printed wiring board:single-sided copper clad laminate board with thickness of 1.6mm. 预热:基板表面温度100℃以下,时间1分钟以内。 Preheating:1.Surface temperature of board:100℃. or less 2.Preheating time:within 1 minute. 焊接:温度230±5℃或以下,时间3秒以内。 Soldering:Solder temperature:230±5℃ or less Immersion time:within 3S 手焊 Manual soldering. 温度300℃以下,时间3秒以内。 Bit temperature of soldering iron:300℃less than Application time of soldering iron:within 3S</p>	<p>不得有绝缘体的破损、变形、接触无异常。 Electrical characteristics shall be satisfied No mechanical abnormality.</p>
6-6. 焊锡性 Solderability	<p>端子在230℃±5℃温度的焊锡槽内浸锡3秒±0.5秒。 The terminals shall be immersed into solder bath at 230℃ for 3S±0.5S.</p>	<p>浸渍面须有75%以上焊锡附着 A new uniform coating of solder shall cover 75% minimum of the surface being immersed.</p>

## RS11系列规格书

### RS11 SERIES SPECIFICATION

#### 推动开关部分 Push Switch Portion

备注：以下规格适用于RS11复位开关带开关系列。

Note: The following specification is only suitable for the one type with switch construction of RS11 Self-return switch series.

#### 1. 额定值 Rating

1-1. 额定电压

Rated voltage: DC 5V

1-2. 最大额定电流（阻抗负载）

Maximum operating current (resistive load): 10mA Max

#### 2. 电气性能 Electrical Characteristics

项目 ITEM	条件 CONDITIONS	规格 SPECIFICATIONS
2-1. 接触电阻 Contact resistance	用DC 5V 1mA 电压测定. Voltage test at DC 5V 1mA.	$\leq 100\text{m}\Omega$ 100m $\Omega$ or less
2-2. 绝缘阻抗 Insulation resistance	在端子和安装板间施加电压 250V DC. Measurement shall be made under the condition which a voltage of 250V DC is applied between individual terminals and bushing and plank.	100M $\Omega$ 以上 100M $\Omega$ Min
2-3. 振荡 Bouncing	以1秒钟1往返 (OFF-ON-OFF) 按压动作. Shaft shall be push at 1 cycles/s (OFF-ON-OFF)	$\leq 10\text{mS}$ 10mS or less
2-4. 耐电压 Dielectric strength	在端子和安装板间施加AC300V电压1分钟 A voltage of 300V AC shall be applied for 1 minute between individual terminals and bushing and plank.	不得有绝缘破坏 Without arcing or breakdown.

#### 3. 机械性能 Mechanical Characteristics

3-1. 开关电路 接点数 Switch circuit and number of pulse		单极单投 (按压ON) Single pole and single throw (push ON)
3-2. 开关动作力 Operation fore of switch	在轴端，沿轴向施加的按压力. Push static load to the shaft in the axial direction	500 $\pm$ 200gf
3-3. 开关移动量 Travel of switch		■ 0.5 $\pm$ 0.3 mm □ 1.5 $\pm$ 0.5 mm

#### 4. 耐久性能 Endurance Characteristics

4-1. 按压寿命 Push-life	在无负荷条件下沿轴向施加1Kgf以下的力，以600次/小时的速度按压。 Push 1Kgf to the shaft of switch in the axial direction under non-load conditions, and with a speed of 600 times/hour.	■ 20,000 $\pm$ 200次. (0.5行程) 20,000 $\pm$ 200cycles. (0.5 Travel) □ 15,000 $\pm$ 200次. (1.5行程) 15,000 $\pm$ 200cycles. (1.5 Travel) 接触电阻: $\leq 200\text{m}\Omega$ . 其它应满足初期规格. Contact resistance: 200m $\Omega$ or less. Specification in clause shall be satisfied.
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