

P. C. B MOUNTING HOLE DETAIL

CIRCUIT: SN

注：Ⓐ - Ⓓ 为重点管控尺寸。

01			03	
00	ORIGINAL DRAWING	2023-03-22	02	
. ISSU.	REVISION	DATE	. ISSU.	
王龙	HUNG KAM PIU	HUNG KAM PIU	TOL. UNLESS OTHERWISE SPEC.	
DSGD.	CHKD.	APPD.	BASIC DIMENSIONS	TOL.
			L ≤ 10	± 0.3
			10 < L	± 0.5
			100 ≤ L	± 0.8
			ANGLE	± 5°
		SCALE		
UNIT		mm	SPECIFICATION: B203-P0-KV100C035	
			SOUNDWELL ELECTRONICS TITLE: POTENTIOMETER MODEL: RA0801SNFOX-VA1-001	

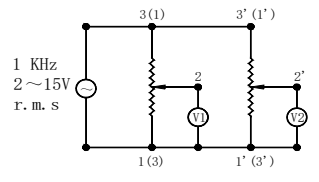
RA0801 SERIES GENERAL SPECIFICATION

RA0801 系列规格书

1 ELECTRICAL CHARACTERISTICS 电气特性				
Item 项 目	Conditions 条 件	Specifications 规 格		
1、Nominal total resistance and tolerance 公称全阻抗值	The resistance between terminals 1 and 3 shall be measured 端子1-3间阻值测定。	<u>20K</u> Ω ■ ±20%		
2、Resistance law 阻抗变化特性	Measurement shall be made by the resistance law method. For other procedures(refer JISC5261 standard) 用电压法测试，参照JISC5261标准	<u>0B</u> Taper线性 Refer to the attached 参见附页		
3、Power rating 额定功率	Power rating is based on continuum full load operation at the maximum voltage between terminals 1 and 3. Power rating vs.ambient temperature shall be denoted on the following graph. 端子1-3间连续负载后的最大功率。 环境温度对功率影响的曲线如下图表示： <div style="text-align: center;"> <p style="font-size: small;">Rated power ratio 额定功率比(%)</p> <p style="font-size: small;">Ambient temperature 周围温度(°C)</p> </div>	0.05W		
4、Rated voltage 额定电压	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 5px;"> Rated voltage 额定电压：E=\sqrt{PR} </td> <td style="width: 60%; padding: 5px;"> Maximum operating voltage 最高使用电压 </td> </tr> </table> Power rating (W) P: 额定功率 Nominal total resistance (Ω) R: 公称全阻抗值 When the rated voltage exceeds the maximum operating voltage. the maximum operating voltage shall be the rated voltage 额定电压大于最高使用电压时,最高使用电压作为额定电压.	Rated voltage 额定电压：E= \sqrt{PR}	Maximum operating voltage 最高使用电压	20V AC
Rated voltage 额定电压：E= \sqrt{PR}	Maximum operating voltage 最高使用电压			
5、Residual resistance 残留电阻	The resistance at each end of the (A). Resistance between terminals 1 and 2, terminal 2 and 3 shall be measured. A: Angle of effective rotation 接触刷停留在(A)终端位置,在端子1-2间,端子2-3间测定之电阻值。 A:有效回转角度	R1,2: $\leq 10 \Omega$ R2,3: $\leq 20 \Omega$		
6、Rotational noise 转动噪音	Apply DC 20V between terminals 1-3 to measure noise voltage . (rated voltage $\leq 20V$. Apply by rated voltage). 在端子1-3间加直流电压20V(额定电压 $\leq 20V$,则以额定电压值测试)后,测定的杂音电压. Shaft rotation : 1 rotation /3Sec 轴转速:1回转/3秒	100mVp-p Less than 100mVp-p 以下		
7、Tracking error 连动误差	The voltage of 2 V r.m.s. shall be applied between terminals 1 and 3 and between terminals 1' to 3' by measuring frequency at 1KHz. The output voltage shall be measured between terminals 1 and 2 and between terminal 1' and 2' (for the 15C and 25C taper. the measurement shall be made between terminals 2 and 3 and between terminals 2' and 3'). It should be the same standard with the first measuring result. used as the test voltage. 在端子1-3间,1'-3'间,输入频率1KHz,电压2V的正弦波实效值,测量端子1-2间,端子1'-2'间的输出电压(适用于15C和25C线型,端子2-3间,2'-3'间也应测量输出电压)结合第一次的测量结果,应为同一标准.如测量结果没有质疑,则将此电压作为测试电压值。	此项不适用		

RA0801 SERIES GENERAL SPECIFICATION

RA0801 系列规格书

1 ELECTRICAL CHARACTERISTICS 电气特性		
Item 项目	Conditions 条件	Specifications 规格
	Input impedance of the voltmeter: 10MΩ or more 电压表输入阻抗:10M Ω 以上 <div style="text-align: center; margin-top: 10px;">  </div>	or less ± ___ / ___ dB 以下
	TAPER : A TAPER -40~0dB	± ___ / ___ dB 以下
	TAPER : B TAPER 转角50%处	± ___ / ___ dB 以下
8、 Insulation resistance 绝缘阻抗	Apply DC 250 V for 1 minute. DC250V 1分钟	Between individual terminals and frame. 端子-固定板
		50MΩ or more 50MΩ 以上
9、 Dielectric strength 耐电压	Measuring frequency : 50~60Hz ; 250V AC for 1 minute.	Between individual terminals and frame 端子-固定板
		Electrical characteristics shall be satisfied with specification . 电气性能符合规定要求
10、 Switch contact resistance 开关接触阻抗		100mΩ Max
11、 Switch rated power on/off 开关承受负载		12V DC 0.5A Max
2 MECHANICAL CHARACTERISTICS 机械特性		
1、 Total mechanical rotation 全回转角度	Angle of effective rotation 有效旋转角度	300°±10°
2、 Rotational torque 旋转力矩	Rotational speed 旋转速度 S 1回转 / 3秒	11.5 ± 8.5 mNm (115±85 gf.cm)
3、 Switch action torque 开关作动力	Rotation speed 60°/ S , standard atmospheric 5°C to 35°C (center click) 旋转速度 60°/S	150±100 gf.cm
4、 Shaft stop strength 止档强度	The following torsion moment load of 3.5kgf.cm shall be applied to the shaft for 5sec at both ends (after fixation) 固定后于旋转前后两端末加3.5Kgf.cm力矩并持续5秒.	Electrical characteristics shall be satisfied. 电气性能符合规定要求
5、 Shaft push & pull strength 轴向推拉强度	Push & pull static load of 10Kgf shall be applied to the shaft in perpendicular to axial directions for 10 s (after fixation) 固定后在与轴垂直的端面方向加10Kgf.cm静载荷并保持10秒。	Shaft without damage; Rotational torque without abnormality . Electrical characteristics shall be satisfied with speciification . 轴无破损, 旋转无异常。 电气性能符合规定要求
6、 Shaft wobble 轴摆动	A momentary load of 500gf.cm shall be applied at the point 5 mm from the tip of the shaft in a direction perpendicular to the axis (after fixation). 固定后在与轴心末端往下5mm处施加500gf.cm静载荷。	0.7*L/30mm p-p or less 0.7*L/30mm p-p 以下 L is the length between mounting surface and measuring points L: 固定面到测试点的距离 Electrical characteristics shall be satisfied with specification 电气性能符合规定要求
7、 Switch rotation angle 开关工作角度		
3 ENDURANCE CHARACTERISTICS 耐久性能		
1、 Solder ability 焊锡性	The terminals shall be stored at a temperature of 40°C with relative humidity of 90~95% and measured in 168h. 温度40°C, 湿度90~95%RH, 168小时测定。	A new uniform coating of solder shall cover a minimum of 75% of the surface being immersed.


RA0801SERIES GENERAL SPECIFICATION

RA0801 系 列 规 格 书

3 ENDURANCE CHARACTERISTICS耐久性能		
Item 项 目	Conditions 条 件	Specifications 规 格
	The terminals shall be immersed into solder bath at 230°±5°C for 3±0.5s.端子在230°±5°C温度的焊锡槽内浸锡3±0.5秒	浸渍面须有75%以上焊锡附着
2、 Resistance to soldering heat 焊锡耐热性	Soldering method手焊条件(60W): Bit temperature 温度: 350°±10°C Application time of soldering 时间: 3 ±1秒	Change in total resistance is relative to the value before test : ±5% Without deformation of case or terminals loosening ,Electrical characteristics shall be satisfied with . specification 总阻变化值: 初测期±5% 外观无变形, 端子无松动, 电气性能符合规定要求
3、 Storage temperature 储存温度	-45°C~85°C	
4、 Working temperature 工作温度	-30°C~70°C	
5、 Resistance to heat 耐热性	The potentiometer shall be stored at a temperature of 70°C±2°C for 240±8h in a thermostatic chamber. Then the potentiometer shall be measured after maintaining at standard atmospheric conditions for 1h with its surface moisture removed. 温度70°C±2°C恒温槽中240±8小时放置后,置于常温常湿1小时除去水滴后测定。	Change in total resistance is relative to the value before test : ±20% 总阻变化值: 初期值的±20%
6、 Resistance to Cold 耐寒性	The potentiometer shall be stored at a temperature of -40±3°C for96±4h in a thermostatic chamber. Then the potentiometer shall be taken out of the chamber and its surface moisture shall be removed. And measure the potentiometer which shall be subjected to standard atmospheric conditions for 1h . 温度-40±3°C恒温槽中96±4小时放置后, 置于常温常湿1小时除去水滴后, 1小时内测定。	Change in total resistance is relative to the value before test : ±20% 总阻变化值: 初期值的±20%
7、 Damp heat 耐湿性	The potentiometer shall be stored at a temperature of 40±2°C, with relative humidity of 90% to 95% for 96±4h in a thermostatic chamber. Then the potentiometer shall be taken out of the chamber and its surface moisture shall be removed. And measure the potentiometer which shall be subjected to standard atmospheric conditions for 1h.. shall be made.温度40±2°C,湿度90-95%,恒温恒湿槽中放置96±4小时后, 置于常温常湿1小时除去水滴后, 1小时内测定。	Change in total resistance is relative to the value before test : +35-5% 总阻变化值:初期值的+35-5% Insulation resistance: 20MΩ or more 绝缘阻抗: 20MΩ 以上 Rotational Noise:150mV p-p less than 转动噪音: 150mV p-p 以下
8、 Change of temperature 温度循环试验	The potentiometer shall be subjected to 5 successive change of temperature cycles, each as shown in table below. Surface moisture shall be removed. And measure the potentiometer which shall be subjected to standard atmospheric conditions for 1 hour.	Change in total resistance is relative to the value before test : ±30% 总阻变化值: 初期值的±30% Insulation resistance:100MΩ or more 绝缘阻抗: 100MΩ以上

RA0801 SERIES GENERAL SPECIFICATION

RA0801 系列规格书

3 ENDURANCE CHARACTERISTICS耐久性能				
Item 项 目	Conditions 条 件		Specifications 规 格	
	以下条件温度连续5个周期的试验后,置于常温常湿1小时除去水滴后,1小时内测定。		Dielectric strength : Without damage to parts arcing or breakdown etc. 耐电压:无损伤,变形,绝缘破坏等情形. Appearance: There shall be no deformation or cracks of molded part. 外观: 塑胶部分无形成破裂	
		Temperature 温度		Duration 放置时间
	1	-10±3°C		30 min (分)
	2	standard atmospheric conditions 常温		10 to 15 min(分)
	3	70±2°C		30 min (分)
	4	standard atmospheric conditions 常温	10 to 15 min(分)	
9、 Endurance 持久性	The moving contact without electrical load shall be rotated from one end stop to the other and returned to its original position (exceeds 90% of effective angle). This procedure constitutes 1 cycle. And the moving contact shall be subjected to 600 cycles per hour. total 30000 cycles Min.(5000 to 8000continuous cycles for 24h). 轴以600周/小时(来回算1周)的速度旋转,24小时旋转5000~8000周,有效旋转角度超过90%,不少于30000周。		Change in total resistance is relative to the value before test : ±15% 总阻变化值: 初期值的±15% Rotational Noise: 150mV p-p less than 转动噪音: 150mV p-p 以下 Rotational torque:No less than 50% of the initial torque . 旋转力矩: 不低于初期规格值的50%。 Residual resistance of R1,2 is relative to twice less than value before test :. R2,3 is 1% less than total resistance . 残留电阻: R1,2为规格值的2倍以下 R2,3 为全阻抗1%以下	
文控编号:	编制时间	 <b style="font-size: 1.2em;">SOUNDWELL ELECTRONIC		
版本号: 03	2007/5/24			
变更记事:	变更时间	DSGD.主办 技术部 23-03-21 李苗	CHKD.审查 技术部 23-03-21 欧阳昌雄	
变更规格	2007/5/24	APPL.核准 技术部 23-03-21 苏朝晖	Title: Rotary Series Potentiometer 标题: 旋转系列电位器	
变更规格	2007/7/31			
更改规格	2009/7/10			
			DOCUMENT NO.: 文件号: RA0801-00	



广东升威电子制品有限公司

Soundwell Electronic Products (Guang Dong) Co., Ltd

STANDARD RESISTANCE TAPER (电位器专用)

Rotary, Slide, Equalizer & Trimmer (Only be applicable to potentiometer)

TAPERS (B) SERIES

