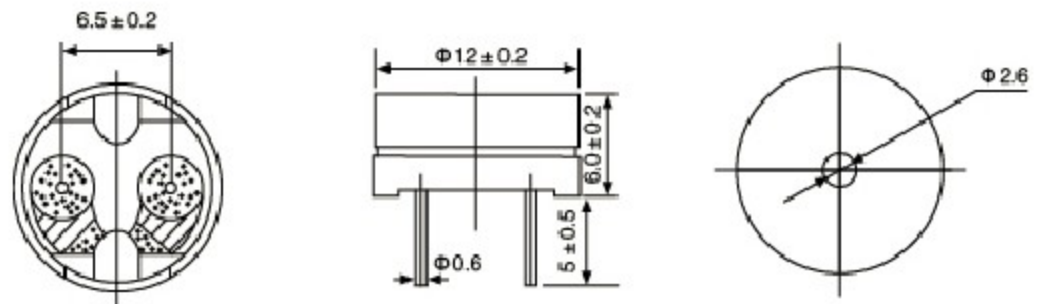


## HSD-1206W1.5

### 1. Electrical Characteristics

型号 <i>Type</i>		<b>HSD-1206W03</b>
额定电压 <i>Rated Voltage</i> <i>DC (V)</i>		3
工作电压 <i>Operating Voltage</i> <i>DC (V)</i>		1.5 - 5
最大电流 <i>Rated Current</i> ( <i>mA</i> )		Max30
直流电阻 <i>Coil Resistance</i> ( $\Omega$ )		16 $\pm$ 2
输出音压 <i>Sound Pressure Level</i> ( <i>dB</i> )		Min80/10cm
谐振频率 <i>Resonant Frequency</i> ( <i>Hz</i> )		2048
工作温度 <i>Operating Temperature</i> ( $^{\circ}\text{C}$ )		-20 $^{\circ}\text{C}$ ~ +70 $^{\circ}\text{C}$
材质 <i>Material</i>		ABS

### 2. Dimension:Unit (mm)



## 样品测试报告 *Sample Test Report*

HSD-1206W03

样品名称 <i>Sample Description</i> : 蜂鸣器									
客户 <i>Customer</i> :									
样品数量 <i>Sample Qty</i> : 10pcs					测试数量 <i>Test Qty</i> : 10pcs				
技术指标 <i>Specification</i> : <i>S.P.L</i> $\geq 80\text{dB}$ at 2048Hz: at 10cm/1.5V Sine Wave <i>Operating Voltage DC(V)</i> = 1.5v~3 <i>Rated Current</i> = 30mA max <i>Coil Resistance</i> = $16 \pm 2\Omega$									
测试数据 <i>Test Date</i> :									
NO.	<i>S.P.L</i> [dB]	<i>Rated Current</i> [mA]	<i>Coil Resistance</i> [ $\Omega$ ]	<i>A&amp;D</i>	NO.	<i>S.P.L</i> [dB]	<i>Rated Current</i> [mA]	<i>Coil Resistance</i> [ $\Omega$ ]	<i>A&amp;D</i>
1.				OK	11.				OK
2.				OK	12.				OK
3.				OK	13.				OK
4.				OK	14.				OK
5.				OK	15.				OK
6.				OK	16.				OK
7.				OK	17.				OK
8.				OK	18.				OK
9.				OK	19.				OK
10.				OK	20.				OK

测试结果 *Test Result*:

合格 *Pass* [  ]

不合格 *Fail* [  ]

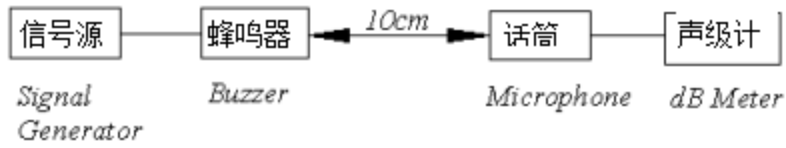
测试人员 *Inspector*:

确认 *Confirmed*:

测试日期 *Test Date*: 2024/5/14

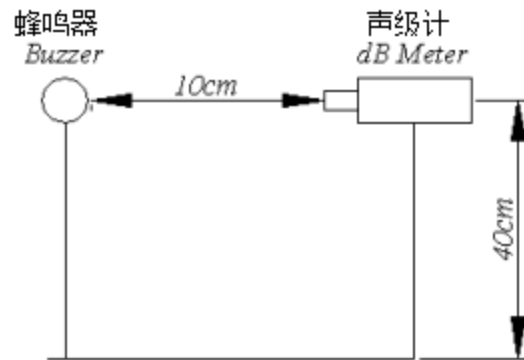
1. 产品测试仪连接:

Connection Diagram Of Testing Apparatus:



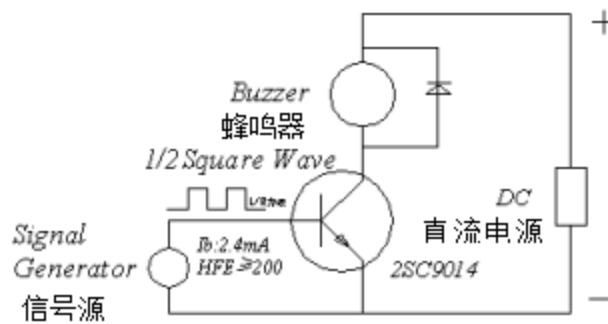
2. 产品测试方法:

Testing Method:



3. 驱动电路:

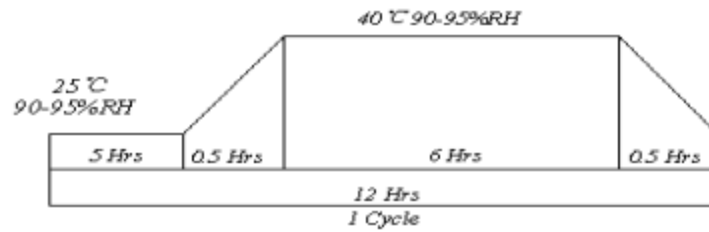
Circuit Diagram:



### 可靠性试验 RELIABILITY TEST

试验项目 ITEM	测试方法 METHOD OF TEST	标准 STANDARD
高温试验 Dry Heat Test	+70°C ± 2°C, 96h, 恢复 2 小时后测量 After being placed in a chamber with +70 ± 2 °C for 96 hours and then being placed in natural condition for 2 hours, sounder shall be measured.	试验后所有指标都满足 All specification must be satisfied after the test.
低温试验 Cold Test	-20°C ± 2°C, 96h, 恢复 2 小时后测量 After being placed in a chamber with -20 ± 2 °C for 96 hours and then being placed in natural condition for 2 hours, sounder shall be measured.	试验后所有指标都满足 All specification must be satisfied after the test.
恒定湿热试验 Humidity Test	将产品置于+40°C ± 2°C, 相对湿度保持在 90%-95%中的环境中放置 96h, 恢复 2 小时后测量。 (见图 FIG.1) After being placed in a chamber with, 90%-95%R.H. at +40 °C ± 2 °C for 96 hours and then being placed in natural condition for 2 hours, sounder shall be measured. (Attached FIG.1)	试验后所有指标都满足 All specification must be satisfied after the test.
温度变化试验 Temperature Cycle Test	产品在-20°C的试验箱和温度为+70°C的试验箱各放置 30 分钟, 为一次温度循环。产品承受 5 次温度循环后, 放置 2h 后进行测量(见图 FIG.2) After being placed in a chamber at -20 °C ± 2 °C for 30 minutes, sounder shall be placed at room temperature(+20 °C). After 15 minutes at this temperature, sounder shall be placed in a chamber at +70 °C ± 2 °C. After 30 minutes at this temperature, sounder shall be returned to room temperature(+20 °C) for 15 minutes. After 5 above cycles, sounder shall be measured after being placed in natural condition for 2 hours. (Attached FIG.2)	试验后所有指标都满足 All specification must be satisfied after the test
振动试验 Vibration Test	频率 10-55-10(Hz), 单振幅: 1.5 (mm) 扫频时间 1min, 振动时间 30min(见图 FIG.3) Sounder shall be measured after being applied vibration of amplitude of 1.5mm with 10-55Hz band of vibration frequency for 30 minutes. Sweep time is 1 minute. (Attached FIG.3)	试验后所有指标都满足。 All specification must be satisfied after the test.
碰撞试验 Shock Test	X,Y,Z 三个方向分别承受 100G 的冲击力, 每向各冲击 3 次 Sounder shall be measured after being applied shock (100G) for each three mutually perpendicular directions to each of 3 times.	试验后所有指标都满足 All specification must be satisfied after the test.
插针的抗拉强度试验 Terminal Strength Pulling Test	插针承受 5 牛顿拉力, 负荷时间 5s, 然后进行检查, 不出现焊点脱落断裂现象 The force 5 seconds of 5N is applied to each terminal. No visible damage and cutting off.	试验后所有指标都满足。 All specification must be satisfied after the test.
可焊性试验 Solder ability Test	焊锡温度 255°C ± 5°C, 浸润时间为 3 ± 0.5s, 试验后采用目测的方法检查浸润, 表面焊锡的浸润情况 Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +255 ± 5 °C for 3 ± 0.5 seconds.	试验后所有指标都满足。 All specification must be satisfied after the test.

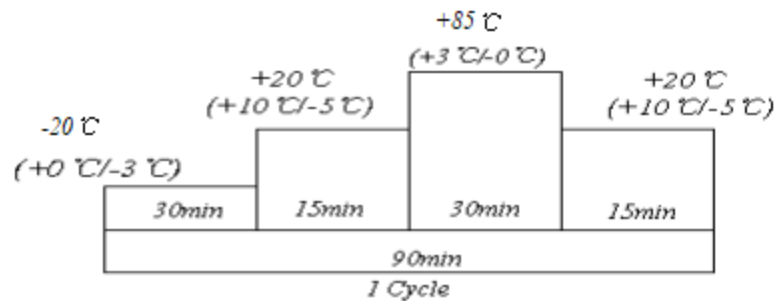
**FIG.1**



将产品置于+40°C±2°C，相对湿度保持在90%–95%中的环境中放置96h，恢复2h后测量（见图FIG.1）

*After being placed in a chamber with,90%-95%R.H. at +40 °C ±2 °C for 96hours and then being placed in natural condition for 2 hours,sounder shall be measured (Attached FIG.1)*

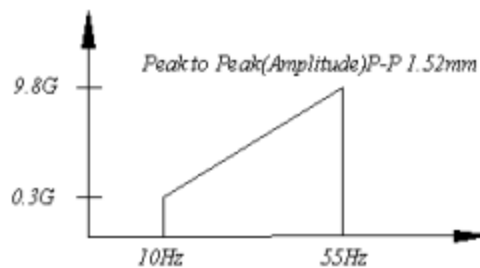
**FIG.2**



产品在-20°C的试验箱和温度为+70°C的试验箱各放置30min,为一次温度循环。产品承受5次温度循环后，放置2h后进行测量（见图FIG.2）

*After being placed in a chamber at -20 °C ±2 °C for 30 minutes,sounder shall be placed at room temperature(+20 °C).After 15 minutes at this temperature,sounder shall be placed in a chamber at +70 °C ±2 °C.After 30 minutes at this temperature , sounder shall be returned to room temperature(+20 °C)for 15 minutes.After 5 above cycles,sounder shall be measured after being placed in natural condition for 2 hours(Attached FIG.2)*

**FIG.3**



频率10–55–10（Hz），单振幅：1.5（mm）扫频时间1min，振动时间30min（见图FIG.3）。

*Sounder shall be measured after being applied vibration of amplitude of1.5mm with 10-55Hz band of vibration frequency for 30 minutes.Sweep time is 1 minute.(Attached FIG.3)*

产品包装图 *Packing*

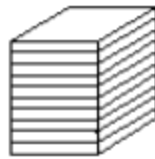
1. 发泡塑料盒  
Foam Box



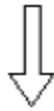
数量: 100只/盒  
Quantity: 100 pcs/box



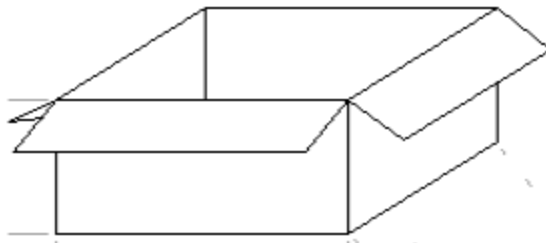
2. 塑料袋外包装  
Plastic bag



数量: 10盒/扎  
Quantity: 10 boxes/bag



3. 纸箱包装  
Carton



数量: 5000只/箱  
Quantity: 5000 pcs/carton