

# SANCO ELECTRONICS CO., LTD.

Rm724, No.22 Lane38, Furong Road, Shangdu Mansion ,Hi-tech park, Ningbo China  
TEL:+86-574-83851068 FAX:+86-574-83851096

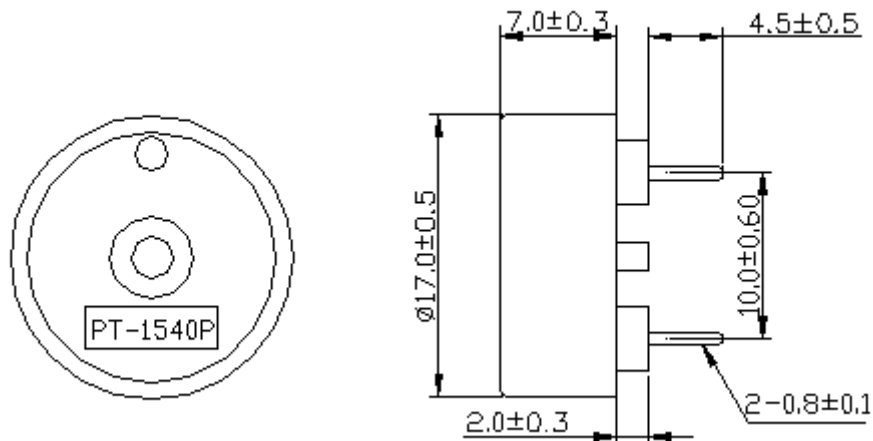
P.1/6

## SPECIFICATION

### 1 . *Electrical Characteristics* 电性能

Type 型号	EPT-17D4005P
Resonant Frequency 谐振频率 (KHz)	$4.0 \pm 0.5$
Operating Voltage 工作电压 (max) (Vp-p)	25
Sound Pressure Level 输出音压 (dB)	Min85/10cm/5.0Vp-p
Current Consumption 工作电流 (max)(mA)	3.0
Capacitance 电容 (pF)	$14000 \pm 30\%$
Operating Temperature 工作温度 (°C)	-20 - +70
Storage Temperature 贮存温度 (°C)	-30- +80
material 材质	PPO

### 2. *Dimensions:Unit(mm)* 尺寸:单位



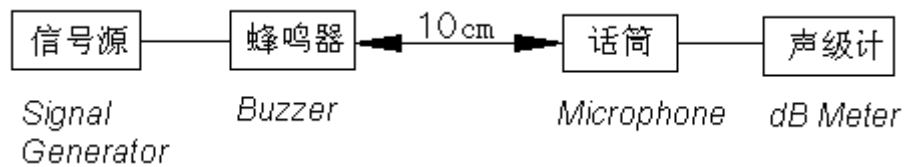
# SANCO ELECTRONICS CO., LTD.

Rm724, No.22 Lane38, Furong Road, Shangdu Mansion ,Hi-tech park, Ningbo China  
TEL:+86-574-83851068 FAX:+86-574-83851096

P.2/6

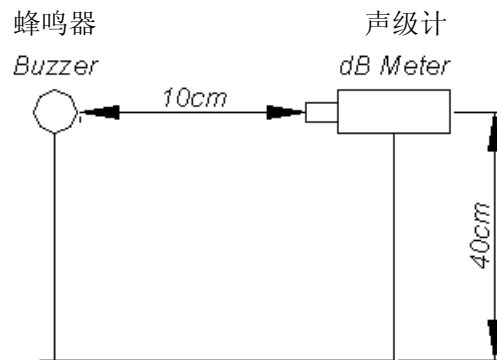
## 1. 产品测试仪连接:

### Connection Diagram Of Testing Apparatus:



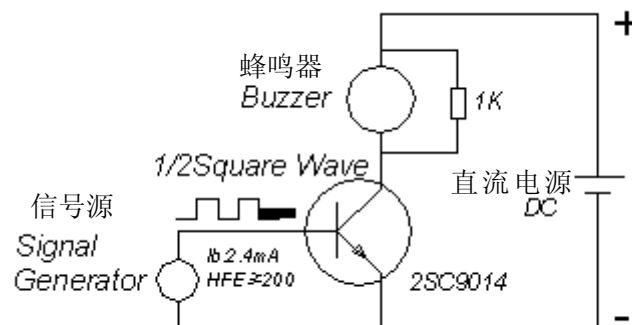
## 2. 产品测试方法:

### Testing Method:



## 3. 驱动电路:

### Circuit Diagram:



# SANCO ELECTRONICS CO., LTD.

Rm724, No.22 Lane38, Furong Road, Shangdu Mansion ,Hi-tech park, Ningbo China  
 TEL:+86-574-83851068 FAX:+86-574-83851096

## 可靠性试验 **RELIABILITY TEST**

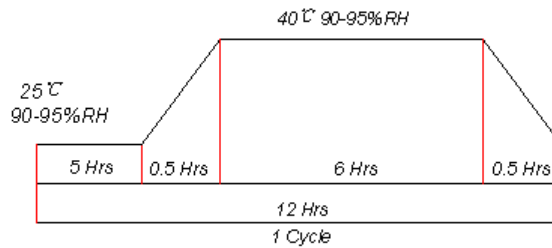
P.3/6

试验项目 <i>ITEM</i>	测试方法 <i>METHOD OF TEST</i>	标准 <i>STANDARD</i>
高温试验 <i>Dry Heat Test</i>	+70℃±2℃, 96h, 恢复 2 小时后测量 <i>After being placed in a chamber with +70±2℃ for 96 hours and then being placed in natural condition for 2 hours, sounder shall be measured.</i>	试验后所有指标都满足 <i>All specification must be satisfied after the test.</i>
低温试验 <i>Cold Test</i>	-20℃±2℃, 96h, 恢复 2 小时后测量 <i>After being placed in a chamber with -20±2℃ for 96 hours and then being placed in natural condition for 2 hours, sounder shall be measured.</i>	试验后所有指标都满足 <i>All specification must be satisfied after the test.</i>
恒定湿热试验 <i>Humidity Test</i>	将产品置于+40℃±2℃, 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) <i>After being placed in a chamber with, 90%-95%R.H. at +40℃±2℃ for 96 hours and then being placed in natural condition for 2 hours, sounder shall be measured. (Attached FIG.1)</i>	试验后所有指标都满足 <i>All specification must be satisfied after the test.</i>
温度变化试验 <i>Temperature Cycle Test</i>	产品在-20℃的试验箱和温度为+70℃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) <i>After being placed in a chamber at -20℃±2℃ for 30 minutes, sounder shall be placed at room temperature(+20℃). After 15 minutes at this temperature, sounder shall be placed in a chamber at +70℃±2℃. After 30 minutes at this temperature, sounder shall be returned to room temperature(+20℃) for 15 minutes. After 5 above cycles, sounder shall be measured after being placed in natural condition for 2 hours. (Attached FIG.2)</i>	试验后所有指标都满足 <i>All specification must be satisfied after the test</i>
振动试验 <i>Vibration Test</i>	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) <i>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)</i>	试验后所有指标都满足。 <i>All specification must be satisfied after the test.</i>
碰撞试验 <i>Shock Test</i>	X,Y,Z 三个方向分别承受 100G 的冲力, 每向各冲击 3 次 <i>Sounder shall be measured after being applied shock (100G) for each three mutually perpendicular directions to each of 3 times.</i>	试验后所有指标都满足 <i>All specification must be satisfied after the test.</i>
插针的抗拉强度试验 <i>Terminal Strength Pulling Test</i>	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 <i>The force 5 seconds of 5N is applied to each terminal. No visible damage and cutting off.</i>	试验后所有指标都满足。 <i>All specification must be satisfied after the test.</i>
可焊性试验 <i>Solder ability Test</i>	焊锡温度 235℃±5℃, 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 <i>Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +235±5℃ for 3±0.5 seconds.</i>	试验后所有指标都满足。 <i>All specification must be satisfied after the test.</i>

# SANCO ELECTRONICS CO., LTD.

Rm724, No.22 Lane38, Furong Road, Shangdu Mansion ,Hi-tech park, Ningbo China  
 TEL:+86-574-83851068 FAX:+86-574-83851096

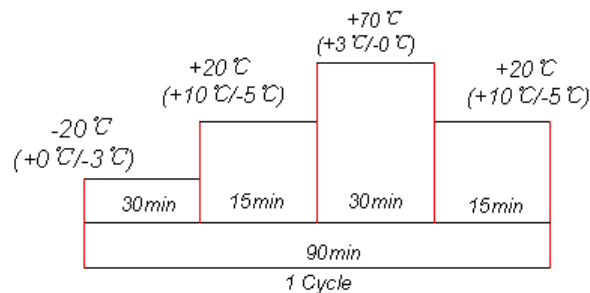
FIG.1



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)*

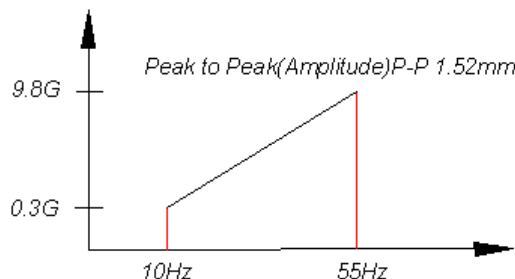
FIG.2



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 mintues at thistemperature , sounder shall be returned to room tem-perature(+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 timeis 1 minute.(Attached FIG.3)*

# SANCO ELECTRONICS CO., LTD.

Rm724, No.22 Lane38, Furong Road, Shangdu Mansion ,Hi-tech park, Ningbo China  
TEL:+86-574-83851068 FAX:+86-574-83851096

P.5/6

## 样品测试报告 *Sample Test Report*

**EPT-17D4005P**

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> 10 pcs				
技术指标 <i>Specification:</i> S.P.L $\geq 85\text{dB}$ at 4.0KHz/10cm/5.0V <sub>P-P</sub> Square Wave Co=14nF $\pm 30\%$ at 120Hz I $\leq 3.0\text{mA}$									
测试数据 <i>Test Date:</i>									
NO.	S.P.L [dB]	Co [nF]	I [mA]	A&D	NO.	S.P.L [dB]	Co [nF]	I [mA]	A&D
1	94	13.0	1.16	OK	11				
2	93	13.9	1.89	OK	12				
3	94	13.9	1.11	OK	13				
4	92	12.8	1.11	OK	14				
5	94	12.8	1.05	OK	15				
6	93	13.3	1.20	OK	16				
7	92	12.7	1.0	OK	17				
8	93	13.7	0.96	OK	18				
9	92	12.8	1.11	OK	19				
10	93	12.6	1.29	OK	20				

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:* 2012/11/15

# SANCO ELECTRONICS CO., LTD.

Rm724, No.22 Lane38, Furong Road, Shangdu Mansion ,Hi-tech park, Ningbo China  
TEL:+86-574-83851068 FAX:+86-574-83851096

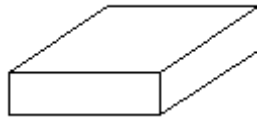
P.6/6

EPT-17D4005P

## 产品包装图 *Packing*

### 1. 纸盒包装

*Paper Box*



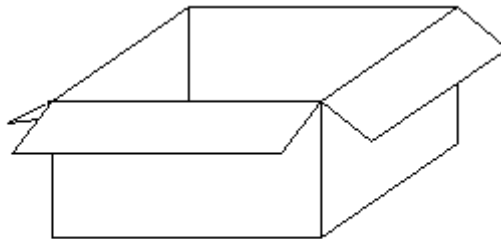
数量: 400 只/盒

*Quantity:400pcs/box*



### 2. 纸箱包装

*Carton*



数量: 4000 只/箱

*Quantity:4000pcs/carton*