| To: | |
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| | |

Approval Sheet for Product Specification 请承认书

| PRODUCT NAME | 【产品名称】: | BUZZER |
|------------------|---------|-------------------|
| CUSTOMER PART NO | 【客户型号】: | |
| QINGLONG PART NO | 【我司型号】: | PA-16S |
| DESCRIPTION | 【规格】: | 16x16x2.5, 4000Hz |
| DRAWWING NO | 【产品图号】: | |

【注意/note】

- 1. This product shall comply with RoHs. 上本品符合欧洲 RoHs 规定指令.
- 2. IN CASE OF CHANGES, SUCH AS DIE &MOLD, MANUFACTURING PROCESS, MATERIAL, APPEARANCE, AND INSPECITION etc., THE SAME PROCEDURE IS REQUIRED. 此部品确认后. 如模具、制造方法、材料、外观、检查等发生变更的情况下必须事前由双方进行合议。

| DISCUSS RESOLUTION | | | | |
|--------------------|----------|--------------|---------------|----------------|
| QA | PURCHASE | ISSUED BY | CHECKED BY | APPROVED BY |
| | | | | |

SUPPLIER: Changzhou QINGLONG Electronic Components Co., LTD

常州市青龙电子器件有限公司

(prepared seal 供应商印)

TEL(电 话): 86-519-85500395 85500651

FAX(传 真): 86-519-85500519

APPROVAL SEAL (承认印):

http://www.ginlon.com

| CICNIATUDE | Issued by | Checked by | Approved by | Date |
|------------|-----------|------------|-------------|------------|
| | 担当 | 核查 | 确认 | 日期 |
| SIGNATURE | Ma Ying | Zou Eryong | MIAO QIUYIN | 2012.01.05 |

产品规格书 SPECIFICATION FOR BUZZER

1. SCOPE (适用)

This product specification is applied to the buzzer used for sounder in alarm systems. (这种规格产品属于蜂鸣器广泛用于发声系统)

2. PART NUMBER (品名及贵司相关事项)

2-1 QINLON Part Number : PA-16S

本司产品型号

2-2 Customer's Part Number :

客户产品型号

2-3 Customer's Drawing Number :

客户规格书编号

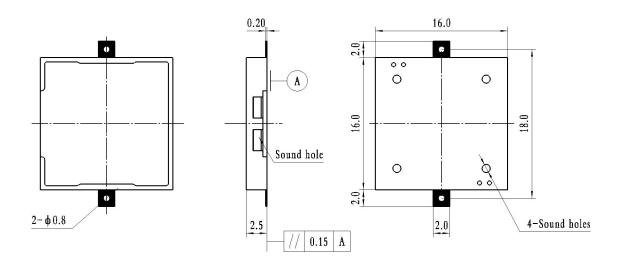
3. SPECIFICATIONS (规格)

| Part No. | <u>PA-16S</u> | | |
|------------------------------------|---------------------|-------------------------------------|--|
| Item (项目) | Specifications [规格] | Conditions[条件] | |
| Operating voltage (Vp-p) 工作电压 | 1~25Vp-p | | |
| Min Sound Pressure Level 最小输出声压 | Min 81dB | At 4000Hz/3Vp-p Square Wave/10cm | |
| Resonant Frequency (Hz) 额定频率 | 4.0±0.5kHz | | |
| Rated Current(mA) 消耗电流 | ≤5mA | Value at 3Vp-p, square wave, 4.0kHz | |
| Operating Temperature (℃) 工作温度 | -40~+120 | | |
| Storage Temperature (℃) 储存温度 | -40~+120 | | |
| Case Material/Color 外壳材料及颜色 | LCP/Black | | |
| Weight (g) 重量 | 1.0 g | | |

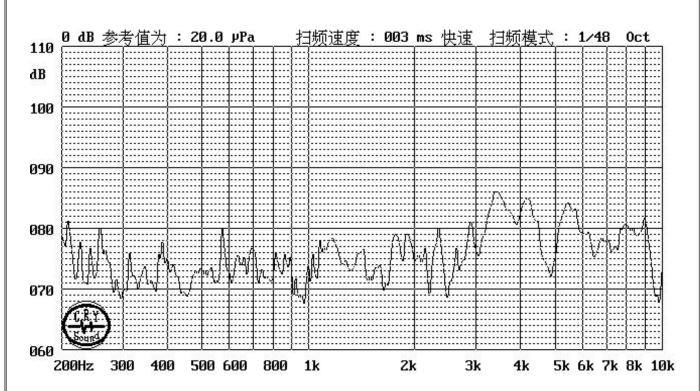
标准测试条件: 温度 25±3℃, 湿度 60±10% R.H.

4. DIMENSIONS (尺寸)

Unit: mm 未注公差:±0.3

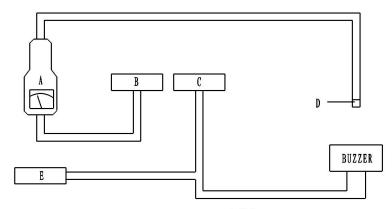


5. FREQUENCY RESPONSE (频率曲线图)



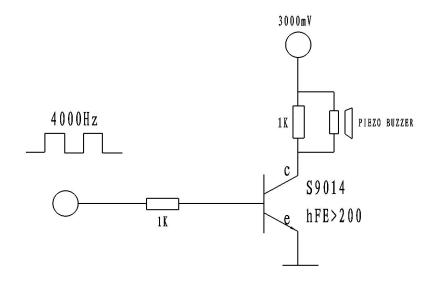
6. TEST METHOD(测试方法)

6-1. SOUND PRESSURE LEVEL, CONSUMPTION (声压测试线路图)



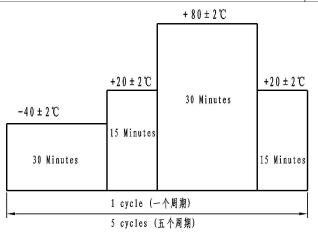
- A: Sound Pressure Level Meter 声级计
- B: Frequency Counter 频率计
- C: RC oscillator 驱动电路
- D: Sound Pressure Level For Focus 声级计传声话筒
- E: Multimeter (Amphere Meter) 信号发声器

6-2. TEST CIRCUIT (测试电路)

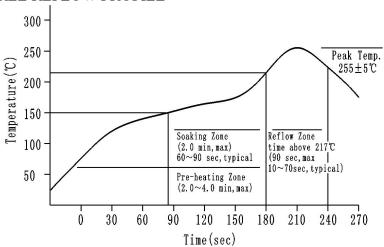


7. RELIABILITY TEST (可靠性试验项目)

| | ITEM (项目) | METHOD OF TEST (试验方法) | VARLANCE AFTER CONDITIONIN(标准) | |
|----|--------------------------------------|--|---|--|
| 1. | Dry Heat Test (Storage) 高温放置试验 | After being placed in a chamber with +120±2℃ for 240 hours and then Being placed in natural condition for 4 hours, buzzer shall Be measured. 在+120±2℃的温湿里放置 240 小时后,再在室温下放置 4 小时后测试 | | |
| 2. | Cold Test (Storage) 低温放置试验 | After being placed in a chamber with -40 ± 2 °C for 240 hours and then Being placed in natural condition for 4 hours, buzzer shall Be measured. 在 -40 ± 2 °C的温湿里放置 240 小时后,再在室温下放置 4 小时后测试 | | |
| 3. | Temperature Cycle Test 温度循环试验 | Make the test for 5 cycles without applying power as fig then expose to the room temperature for 4 hours 不接电源按下图做 5 个周期试验,然后室温下放置 4 小时再测试 | | |
| 4. | Humidity Test 耐湿性试验 | After being placed in a chamber with 90 to 95%R.H. at +40±2℃ for 240 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured. 在湿度为90−95%,温度为+40±2℃的温湿箱里放置240小时后,再在室温下放置4小时后测试 | After the test the part shall meet specifications without any degradation in appearance and | |
| 5. | Operation life test 工作寿命试验 | High temperature life test. 240 hours continuous operation at +120°C at 3Vp-p/Duty 50% 4000Hz Room temperature life test. 240 hours continuous at room temperature with 3Vp-p/Duty 50%,4000Hz Low temperature life test 240 hours continuous operation at -40°C at 3Vp-p/Duty 50% 4000Hz | performance except SPL. SPL shall be initial value±5dB | |
| 6. | Vibration Resistant 耐振动性 | Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours. 振动频率 10~55Hz,振幅为 1.5mm,朝 X、Y、Z 轴三个方向振动 2 小时后测试 | | |
| 7. | Drop Test 跌落试验 | Drop a product naturally form the height of 500mm onto the surface of 100mm thick wooden board. Two directions: This is upper and side of the product are to be applied for this drop test tespectively once. 从 500mm 高度将产品自然跌落在 100mm 厚板上按正、侧面方向各做二次跌落试验,观察此产品能否承受跌落试验。 | | |
| 8. | Solder ability (焊接试验) | Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+255\pm5$ °C for 2 ± 0.5 seconds | ninety-five percent (95%) coverage with a continuous coating of bright new solder | |

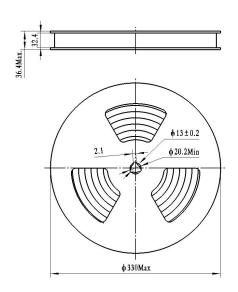


8.焊接示意图 LEAD FREE REFLOW PROFILE

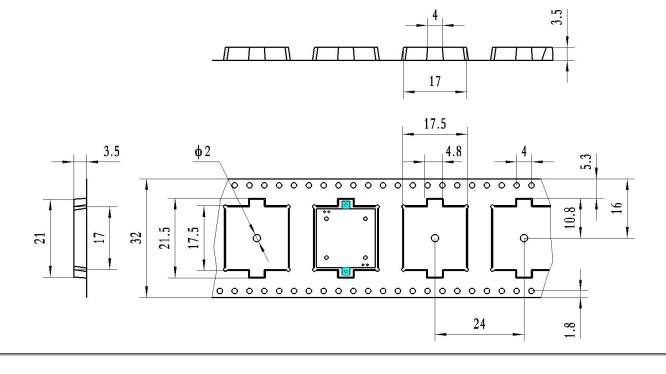


9. 包装规格 Packaging Standard

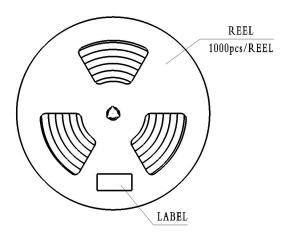
9.1, Ree I



9.2 Reel packing



9.3 Carton



外包装(OUTSIDE PACKAGING):【纸箱:350x350x255mm】 5 盘为一箱, 计 5000 只/箱(5 BALES OF A CASE.COUNT 5000PCS/CASE)

