

规格书编号

DRAWWING NO: CQLD3.840.123

To: TAWORN ELECTRONIC COMPONENTS CO.,LTD. / FOR “ SAIJO- DENKI “

## Approval Sheet for Product Specification 请 承 认 书

PRODUCT NAME      【产品名称】:      Piezo buzzer

CUSTOMER PART NO      【客户型号】:      4EE543F-00001

QINGLONG PART NO      【我司型号】:      PD-2310-A0

DESCRIPTION      【规      格】:      3.6±0.5KHz

DRAWWING NO      【产品图号】:      CQLD3.840.123

【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 INSPECTION 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。

APPROVAL SEAL (承认印):

DISCUSS		RESOLUTION		
QA	PURCHASE	ISSUED BY	CHECKED BY	APPROVED BY

SUPPLIER ( 厂名 ) : 常州市青龙电子器件有限公司

( prepared seal 供应商印 )

TEL(电 话): 66- 2- 729 2964 ~ 8

FAX(传 真): 66-2- 729 2969

E-mail: tec@tawornelectronic.com

<http://www.tawornelectronic.com>

SIGNATURE	Issued by 担当	Checked by 核查	Approved by 确认	Date 日期
-----------	-----------------	------------------	-------------------	------------

规格书编号  
DRAWWING NO: CQLD3.840.123

	Mr. Sarawut	Ms. Uma	Taworn	2009.02.27

产 品 规 格 书  
SPECIFICATION FOR BUZZER

1. SCOPE (适用)  
This product specification is applied to the piezoelectric buzzer used for sounder in alarm systems.  
(这种规格产品属于压电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 : PD-2310-A0  
    本司产品型号
- 2-2 Customer's Part Number : 4EE543F-00001  
    客户产品型号
- 2-3 Customer's Drawing Number : Ref : pkb24spch3601-bo  
    客户规格书编号

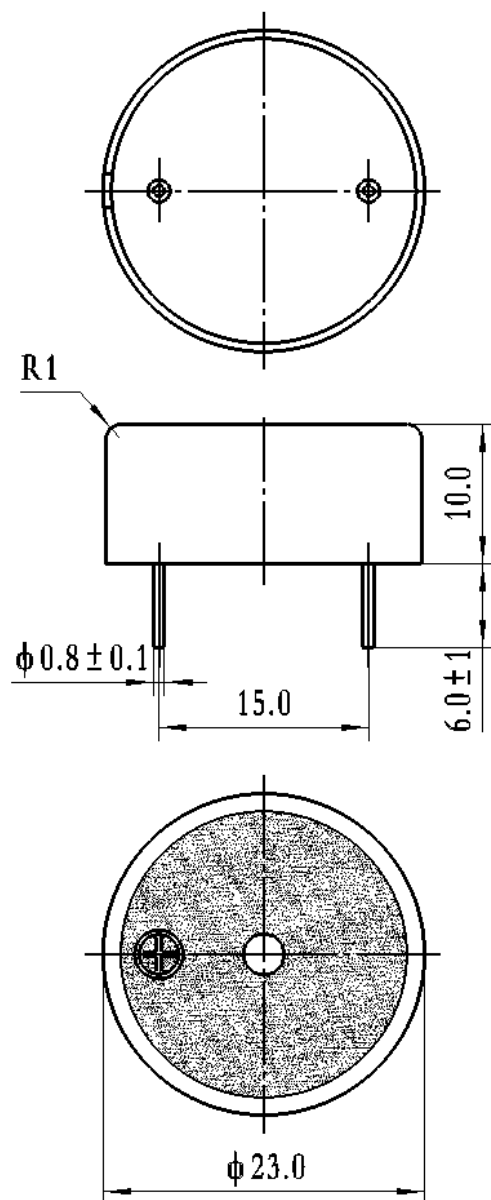
3. SPECIFICATIONS (规格)

Part No.	PD-2310-A0	
Item (项目)	Specifications [规格]	Conditions[条件]
Rated voltage (Vp-p) 额定电压	12	
Operating voltage (Vp-p) 工作电压	3~15	
Rated Current 额定电流	≤16mA	DC12V
Sound output 输出声压级	≥90dB	DC12V, 10cm
Resonant Frequency (Hz) 谐振频率	3600±500Hz	
Operating Temperature (℃) 工作温度	-20~+70	
Storage Temperature (℃) 储存温度	-30~+80	
Case Material/Color 外壳材料及颜色	SEIGFN2	MPPO/Black (聚苯醚, 黑色)
Weight (g) 重量	2.7 g	

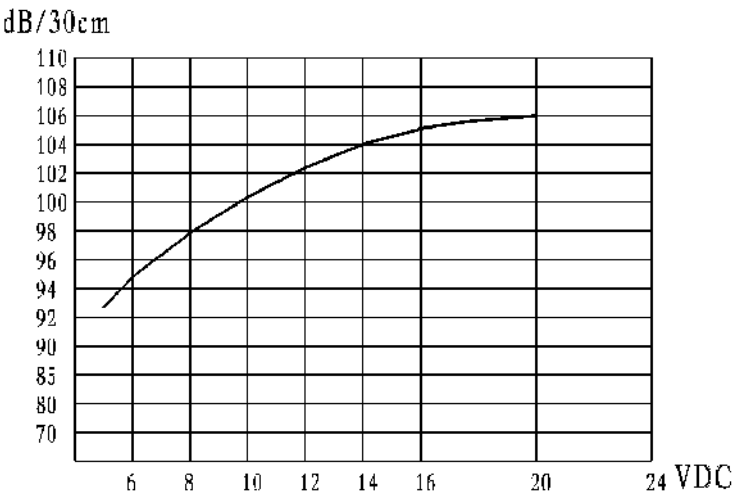
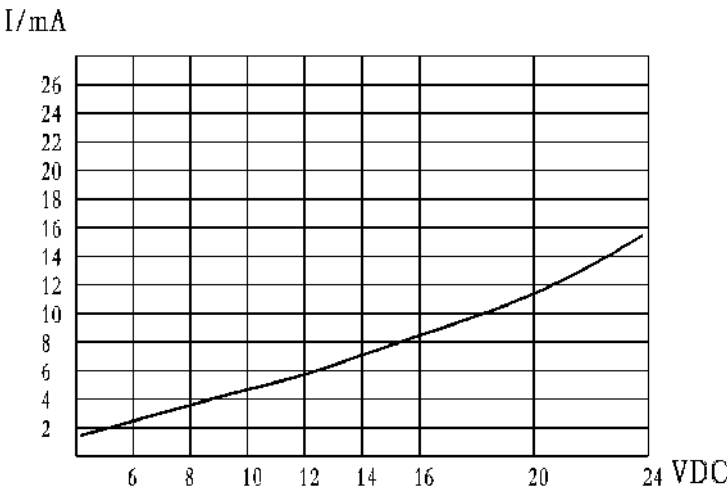
标准测试条件: 温度 25±3℃, 湿度 60±10% R.H.

4. DIMENSIONS (尺寸)

Unit: mm 未注公差:  $\pm 0.5$

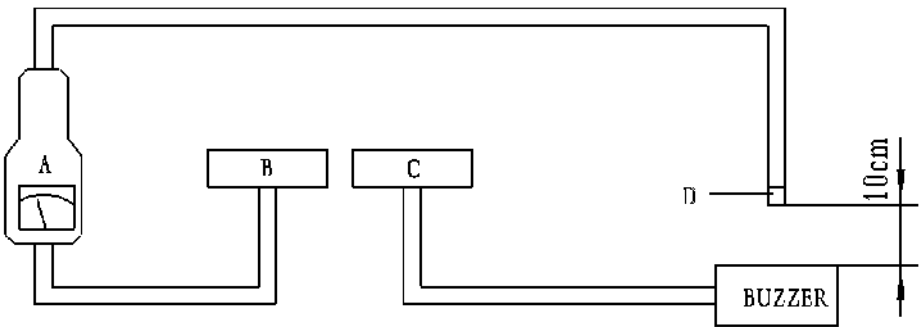


5. CHARACTERISTICS (产品特性)



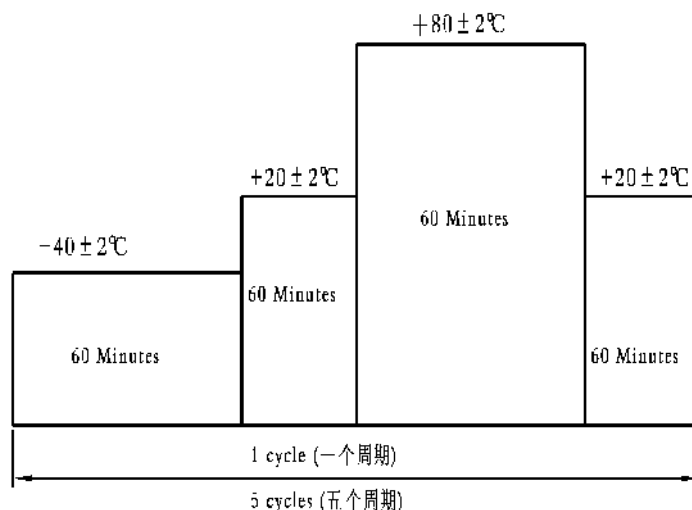
6. TEST METHOD(测试方法)

SOUND PRESSURE LEVEL,CONSUMPTION(声压测试线路图)



## 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 $+80\pm 2^{\circ}\text{C}$ for 240 hours and then Being placed in natural condition for 4 hours, buzzer shall Be measured. 在 $+80\pm 2^{\circ}\text{C}$ 的温湿里放置 240 小时后, 再在室温下放置 4 小时后测试	The value of resonant frequency/current consumption should be in $\pm 10\%$ compared with initial ones. The SPL should be 90dB
2.	Cold Test (Storage) 低温放置试验	After being placed in a chamber with $-40\pm 2^{\circ}\text{C}$ for 240 hours and then Being placed in natural condition for 4 hours, buzzer shall Be measured. 在 $-40\pm 2^{\circ}\text{C}$ 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 $+40\pm 2^{\circ}\text{C}$ 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 $+40\pm 2^{\circ}\text{C}$ 的温湿箱里放置 240 小时后, 再在室温下放置 4 小时后测试	
5.	Operation life test 工作寿命试验	1. High temperature life test. 240 hours continuous operation at $+80^{\circ}\text{C}$ at DC12V 2. Room temperature life test. 240 hours continuous at room temperature with DC12V 3. Low temperature life test 240 hours continuous operation at $-40^{\circ}\text{C}$ at DC12V	
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 $+255\pm 5^{\circ}\text{C}$ for $2\pm 0.5$ seconds	



规格书编号

DRAWWING NO: CQLD3.840.123

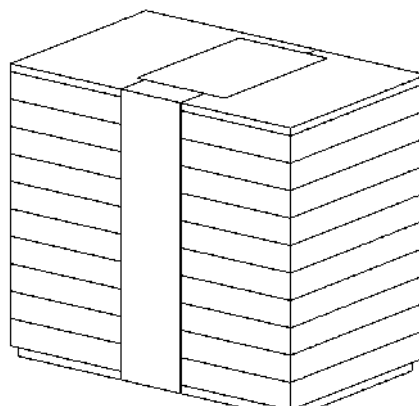
## 8. 包装规格 Packaging Standard

### 8.1 内包装(INSIDE PACKAGING) :

一盒(ONE BOX) : 100 只

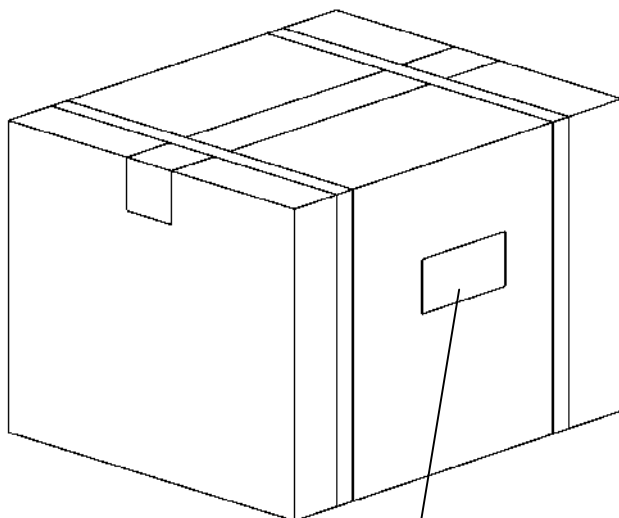
10 盒为一捆包 , 计 1000 只/捆

(10 BOXES OF A BALE,COUNT 1000PCS/BALE)



### 8.2 外包装(OUTSIDE PACKAGING) : 【纸箱:470X350X340mm】

2 捆为一箱 , 计 2000 只/箱(2 BALES OF A CASE.COUNT 2000PCS/CASE)



P/O NO.	
NAME	BUZZER
TYPE	PD-2310-A0
PART NO.	
QTY	2000PCS
SIZE	470X350X340
LOT NO.	

CHANGZHOU QINGLONG ELECTRONIC COMPONENT CO.,LTD