

规格书
Specification

品名
Model name

TMB12A05
C96093
ROHS

PROPRIETARY
Huaneng Electronic co.,Ltd.

CONFIDENTIAL
Huaneng Electronic co.,Ltd.

Version #	Spec V1.0
制作日期 Date	2017/05/16
准备 Prepared	Yang shu yin Acoustic specialist,R&D Dept.
审核 Approved	Zhang chang hua Executive Manager,R&D Dept.



江苏华能电子有限公司

*Components Operating Div.
Huaneng Electronic co.,Ltd.*

This specifications apply the TMB12A05 ROHS buzzer.

2. 基本规格/General specification

项目/Item		规格/Spec	条件/Condition
1	额定电压 Rated voltage	5VDC	
2	工作电压 Operation voltage	4~8VDC	
3	声压 Sound Pressure Level=SPL	Min 85dB	测试环境：标准状态，标准驱动电路， 额定电压 测试距离：0.1m Standard State, Standard Drive Circuit. Rated voltage, Distance at 0.1m
4	电流 current	≤ 30mA	
5	振荡频率 Oscillation frequency	2300±400Hz	
6	响应时间 Response time	Max 50ms	最低工作电压 Lowest operation voltage
7	工作温度范围 Range of operation temperature	-20~+70°C	声压 ≥ 85dB SPL ≥ 85dB
8	保存温度范围 Range of preservation temperature	-30~+85°C	
9	端子强度 Terminal strength	10N	拉负荷方向的终端轴 Pull load on the direction of the terminal axis
10	外部尺寸 Externals size	Φ12x9.5	参阅附图 Refer to the attached drawing
11	重量 Mass	2g	

☆标准状态：常温（15~35°C），湿度（25~85%相对湿度），空气压力（860~1060hpa）
在假设的情况判断，测试是一基本状态下进行。

Standard State: Ordinary Temp(15~35°C), Humidity(25~85%RH), Air pressure(860~1060hPa)

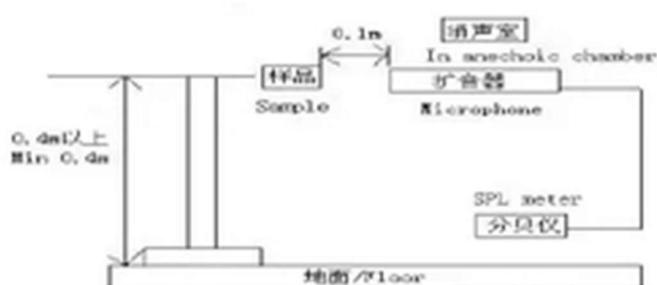
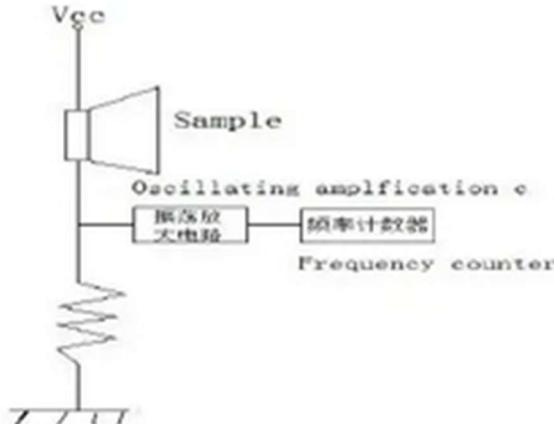
In case of doubtful judgment, the test is re-performed under Basic State.

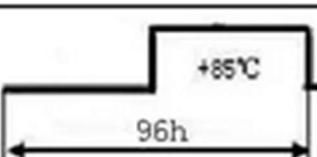
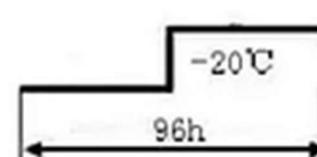
☆基本情况：温度（20±2°C），湿度（60~70%相对湿度），空气压力（860~1060hpa）

Basic State: Temp.(20±2°C), Humidity(60~70%RH), Air pressure(860~1060hPa)

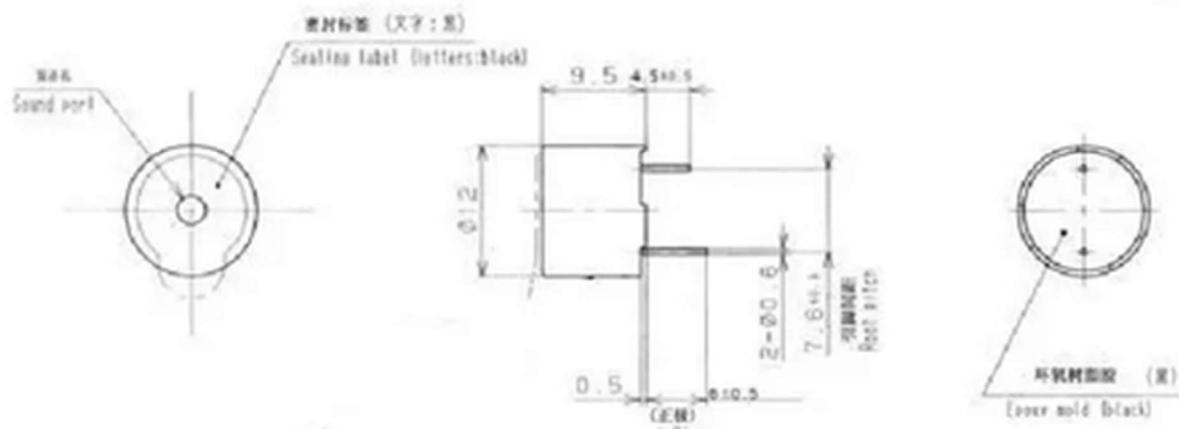
<标准驱动电路>/<Standard Drive Circuit>

<标准测试治具>/<Standard Test Fixture>



项目/Item	试验条件/Test condition	判断标准/Criteria	引用规格
1 高温保存试验 High temperature Preservation	+85°C环境下放置24小时 Exposure to +85°C for 24 hrs.	经过测试，符合规格，没有任何不合格的外观和性能 After the test the part shall meet specifications without any degra.	
2 低温保存试验 Low temperature preservation	-20°C环境下放置24小时 Exposure to -20°C for 24 hrs.		
3 高温试验 High temperature Shock			
4 低温试验 Low temperature Shock			
5 常温寿命试验 Ordinary Temp. Life	常温 (25°C±10°C) 电压5VDC连续测试48小时 Driving the sounder at 5VDC for 48hrs in the room temperature (25°C±10°C)		
6 高温寿命试验 High Temp. Life	高温(+85°C) 电压5VDC连续测试2小时 Driving the sounder at 5VDC for 2hrs in the low temperature (+85°C)		
7 低温寿命试验 Low Temp. Life	低温(-20°C) 电压5VDC连续测试2小时 Driving the sounder at 5VDC for 2hrs in the low temperature (-20°C)		
8 端子拉力试验 Lead strength	10N的拉力在端子上拉10±1秒 Pull load on the direction of the terminal axis for 10±1 sec.		
9 跌落试验 Free drop	70cm高自由掉落到厚40mm的木板上，每个方向一次 Free drop, 70cm height, on wood board (t40mm) X, Y, Z 3Direction 1time each, total 3times.	排除弯曲的针 Exclude bending of Pin	
10 端子可焊性试验 Solderability	260±5°C 焊接温度。时间: 5±0.5sec. Temp. 260±5°C Soaking Time: 5±0.5sec	端子95%必须覆盖着焊料 95% surface of lead pins must be covered with fresh solder and no soldering holes Should be found	

一般公差 ± 0.3
角度公差



			审批 APPROVED	张长华	材料 MATERIAL	PP081		
			校 验 CHECKED	杨树强	加 工 TREATMENT			
			设 计 DESIGNED		表 面 处 理 SURFACE TREATMENT			
			制 图 DRAWN		第三者品 THIRD PARTY	尺度 SCALE	APPEARANCE DRWG.	
日期 DATE	变更号码 CHANGE NO.	变 更 内 容 CHANGE CONTENTS		江苏华能电子有限公司 JIANGSU HUANENG ELECTRONICS CO.,LTD		2/1 mm	产品名称 NAME	TMB12A05 ROHS

产品特征图

