



产 品 规 格 书

PRODUCT SPECIFICATION

客户名称 CUSTOMER: _____

产品型号 MODEL: HN-1201-16A

客户型号 USER'S MODEL: _____

日 期 DATE: 2019-12-3

江苏华能电子有限公司			客户回签		
HUAWHA			CUSTOMER		
SERVE RATITY			CUSTOMER RATIGY		
拟制	审核	批准	检验	审核	批准
REPORT	CHECKED	APPROVED	TEST	CHECKED	APPROVED
王文娟	工稿专用章	张长华			

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1.基本规格/General specification

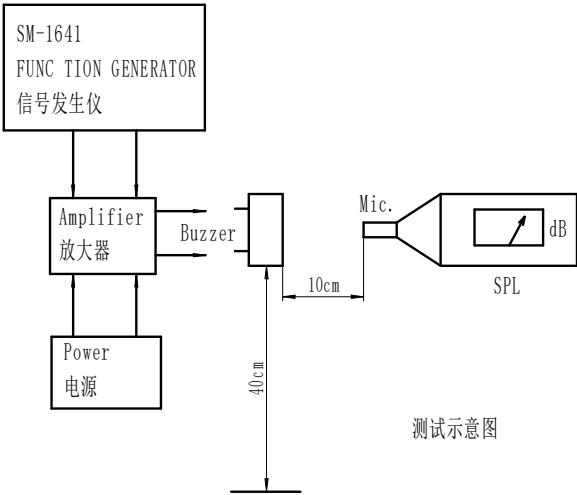
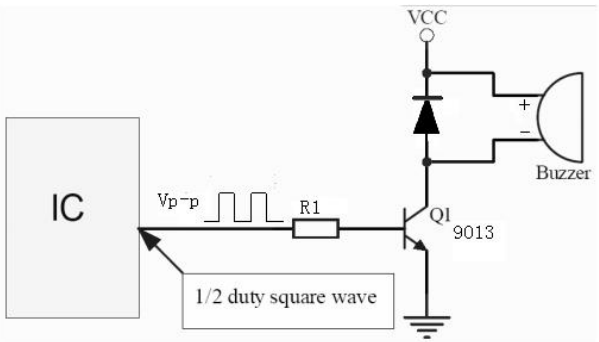
项目/Item		规格/Spec	条件/Condition
1	额定电压 Rated voltage	3.0Vo-p	测试环境：标准状态，标准驱动电路， 额定电压 测试距离：0.1m Standard State,Standard Drive Circuit. Rated voltage,Distance at 0.1m
2	工作电压 Operation voltage	1.5~5Vo-p	
3	声压 Sound Pressure Level=SPL	Min 86dB	
4	电流 current	Max50mA	
5	振荡频率 Oscillation frequency	2000Hz	
6	电阻 Coil Resistance	16±5 Ω	
7	工作温度范围 Operating Temperature	-20~+70℃	
8	保存温度范围 Storage temperature	-30~+80℃	
9	外部尺寸 Externals size （mm）	φ 12*H9	参阅附图 Refer to the attached drawing
10	重量 Mass	1.8g	
11	材质 Housing Material	PBT	

2.电气和声学测试条件/Electrical And Acoustical Measuring Condition

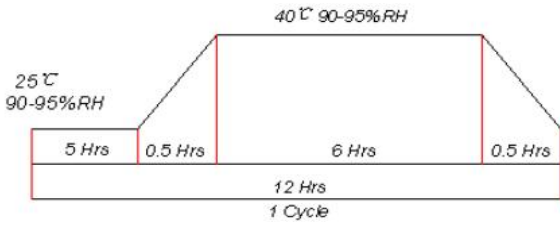
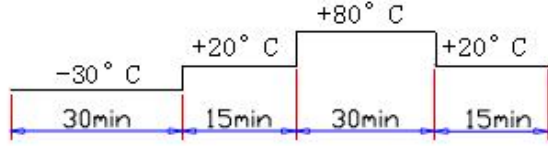
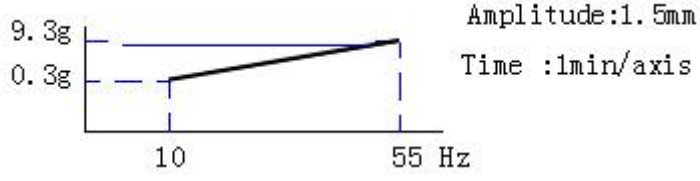
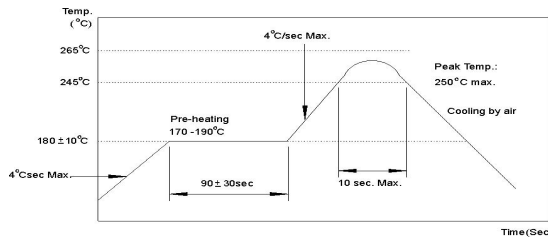
驱动电路/Recommended Driving Circuit

设置 Recommended Setting

Resonant frequency, 1/2 duty cycle. Square wave.
Signal amplitude should be large enough to saturate the transistor.



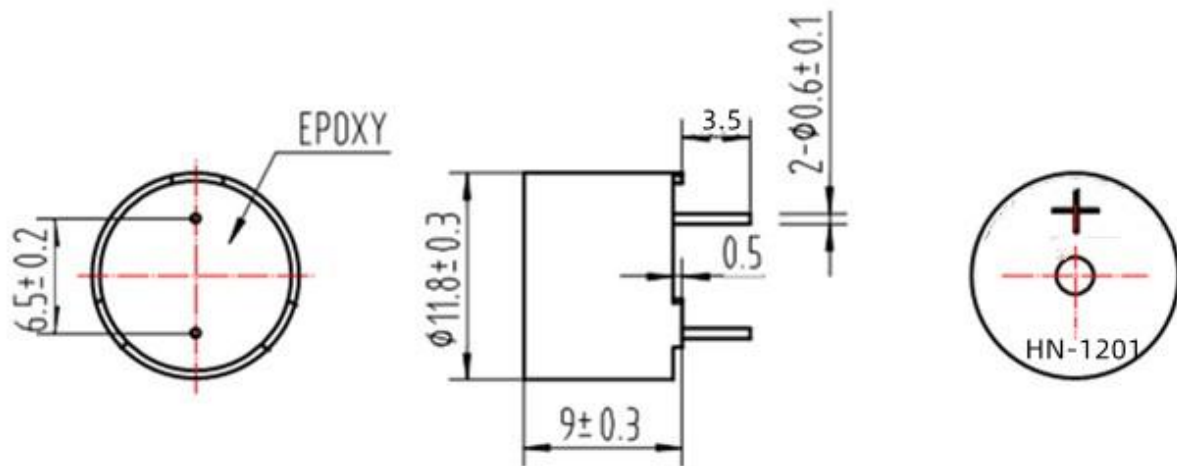
3.可靠性测试/Reliability Test

	项目 ITEM	测试方法 TEST
1	高温试验 High Temperature Test	在 $+80^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 储存温度下存放 96 小时，恢复 2 小时后测试 After being placed in a chamber with $+80\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours
2	低温试验 Low Temperature Test	在 $-20^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 储存温度下存放 96 小时，恢复 2 小时后测试 After being placed in a chamber with $-20\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours
3	恒定湿热试验 Humidity Test	 12 Hrs 1 Cycle
4	温度变化试验 Temperature Cycle Test	 Make this test for 5 cycle without applying power, then expose to the room temperature for 2 hours 不加负载，按 5 次循环测试，然后在室温下恢复 2 小时
5	振动试验 Vibration Test	 Amplitude:1.5mm Time :1min/axis Make this test for the directions of X, Y, Z for 2 hours each (total 6 hours). 振动频率 10-55Hz, 振幅 1.5mm, 在 X, Y, Z 3 个方向各 2 小时
6	跌落试验 Drop Test	70cm 高自由掉落到 40mm 的木板上，每个方向三次 Drop on a hard wood board of 40mm thick, any directions, three times, at the height of 70cm
7	插针的抗拉强度试验 Terminal Strength Pulling Test	插针承受 1.0kg 拉力，负荷时间 5s The force 5 seconds of 1.0kg is applied to each terminal.
8	可焊性试验 Solder ability Test	焊锡温度 $255\pm 5^{\circ}\text{C}$ ，浸润时间为 $3\pm 0.5\text{s}$ ，试验后目测产品情况 Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $255\pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds.
9	回流焊测试 Soldering Test	 Temp. ($^{\circ}\text{C}$) 265°C 245°C 180$\pm$10°C 4°C/sec Max. Pre-heating 170-190°C 90$\pm$30sec 10 sec. Max. Cooling by air Peak Temp.: 250°C max. Time(Sec)

4.尺寸图 Dimension

*基本公差: 除特殊注明外, 一般公差为 $\pm 0.5\text{mm}$

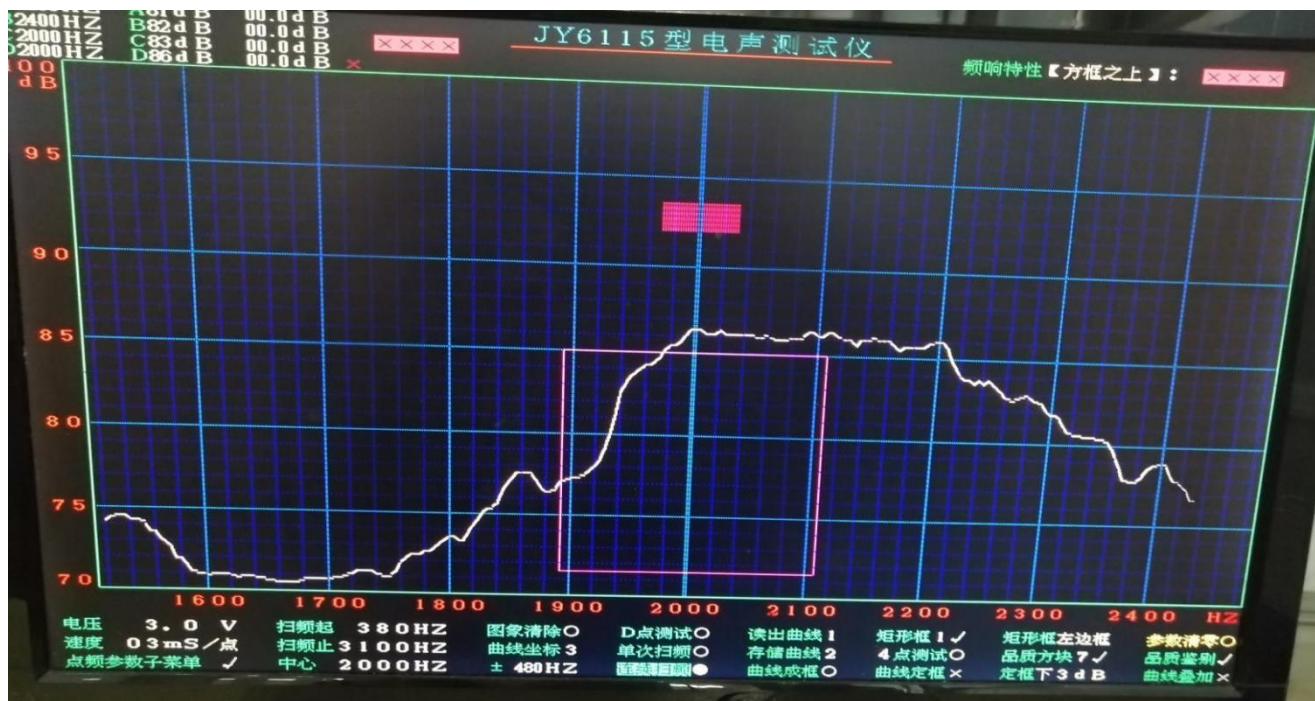
*外壳材料: Black PBT



*Unit: mm; Tolerance: $\pm 0.5\text{mm}$ Except Specified

*Housing Material: Black PBT

5.频率响应/Frequency Response



3.0Vo-p 50% duty Square wave,10cm

6.包装 picking

