



# NINGBO KLS ELECTRONIC CO.,LTD.

PART NO:KLS3-SMD-13134

## Specification for speaker

### 1. CONDITION.

Test and measurement will be carried out under normal condition of temperature within 5°C to 35°C, relative humidity within 45% to 85% and air pressure of 860 mbar to 1060 mbar.

Should uncertainly arise in data obtained from the above atmosphere, control of temperature at 20°C ± 2°C and relative humidity within 60% and 70%, with air pressure remaining unchanged, to be enforced.

### 2. ELECTRICAL AND ACOUSTICAL SPECIFICATION.

2-1	Rated Input Power:	0.7W
2-2	Max Input Power:	1.0W
2-3	Rated Impedance:	8Ω ± 15%
2-4	Sound Pressure Level. (S.P.L)	88dB(0.7W/0.1m) ± 3 dB at AVE 1.0K 1.6K 2.0K 3.2K Hz
2-5	Resonance Frequency (Fo).	1100 ± 20% Hz
2-6	Frequency Range.	F0 ~ 20kHz.
2-7	Distortion	Less than 10% at 2KHz input Rated Power
2-8	Magnet	Rare earth permanent (SMCO) magnet 6*1 mm
2-9	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.
2-10	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.
2-11	Weight.	1.1g
2-12	Temperature	Operating temperature: -30°C to +85°C Storage temperature: -40°C to +85°C



### 3. MEASURING METHOD

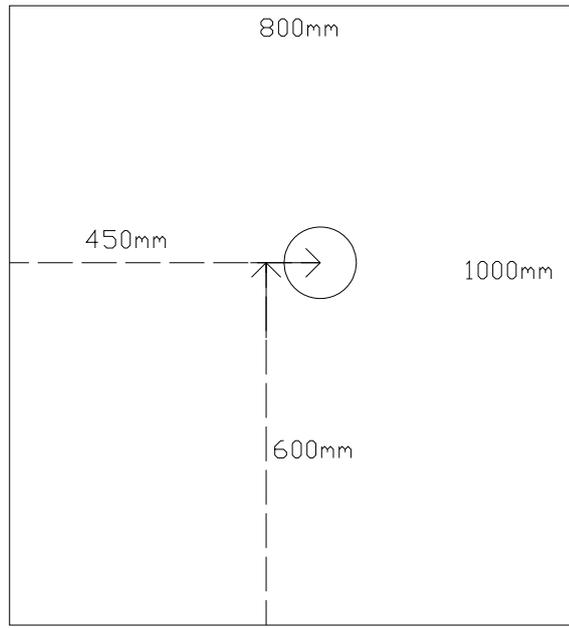
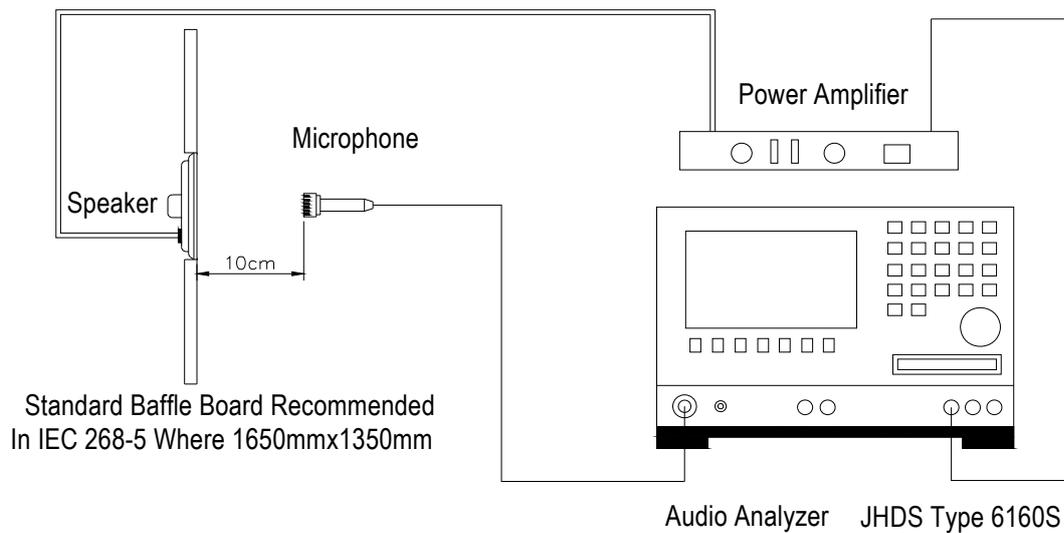


FIG.1

#### 3.1 Block Diagram For Measurement Method.

#### Standard test condition of speaker

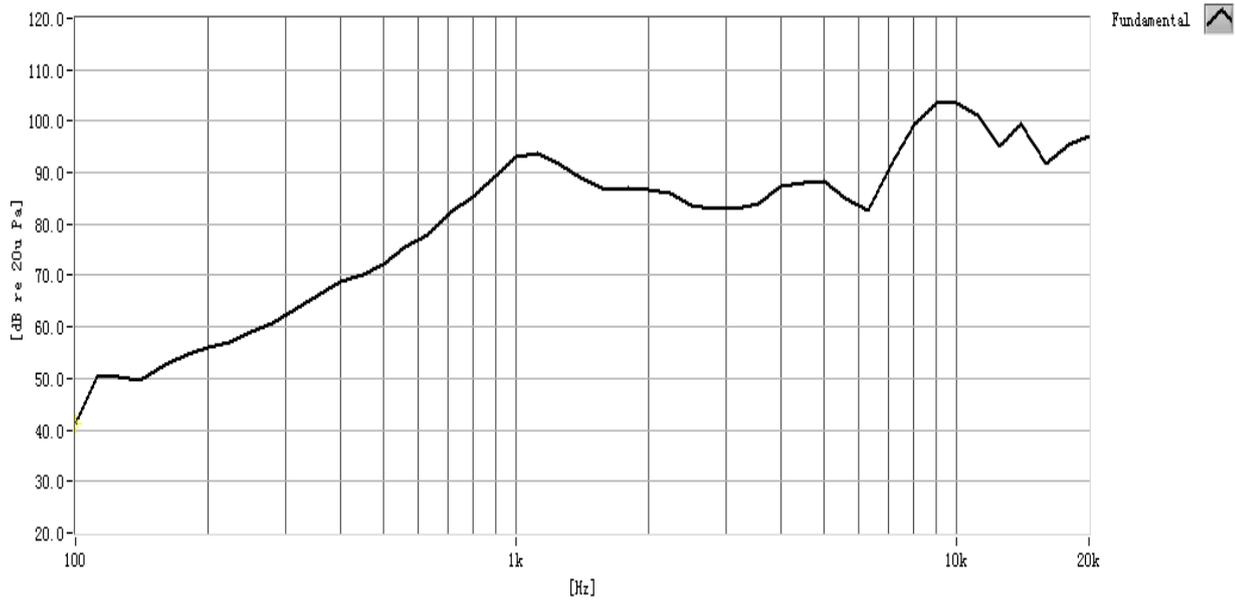




## 4. Frequency Response :

The swept sine-wave frequency response of a Loud speaker should ideally not deviate more than indicated per Fig.3

XY Graph 3



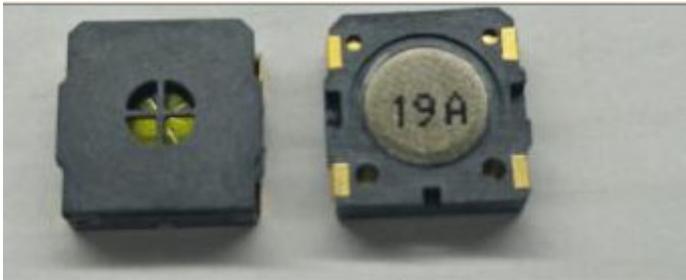
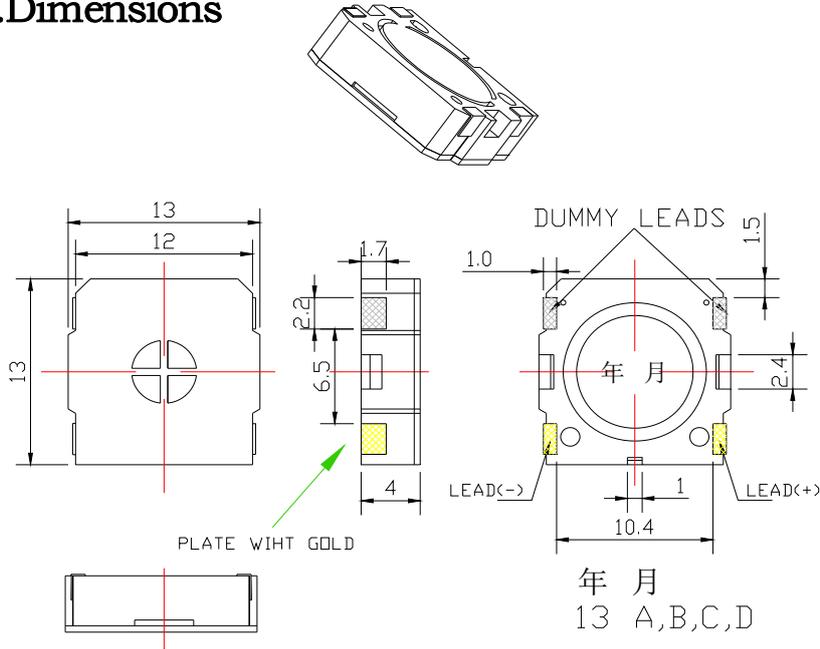


## 5. ENVIRONMENT TEST

ITEM		SPECIFICATIONS
01	High temp. Test	Keep 96 hours at $+85^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at $+40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ relative humidity 92-95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	<p>The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;</p>
05	Thermal cycle test.	Low temperature: $-40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ , temperature: $+85^{\circ}\text{C}\pm 3^{\circ}\text{C}$ , cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	Vibration	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
07	Fix drop test	Fix on jig. Then drop from 152cm height to the concrete floor X,y, z 6 direction. 5 times each, total 30 times.
08	Free drop test	Free drop from 100cm height to the concrete floor X,Y, Z 6 direction. 1 times each, total 6 times.
09	Load test	Rated Power White noise is applied for 96 hours
10	Max Power test	Max power 1 min. on - 2 min. off 10 cycles.
11	Terminal strength test	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.
<p><b>Criterion :</b> After these test , the change of S.P.L shall be within <math>\pm 3</math> dB</p>		

**6.Dimensions**

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Unit:mm Tol:±0.5

8	LEADS	4	PLATE WITH GOLD	
7	Cap	1	LCP	
6	Diaphragm	1	PI	
5	VOICE COIL	1	Cu	
4	Plate	1	SPCC	
3	Magnet	1	SmCo	
2	PCB Terminal	1	Cu	
1	Frame	1	LCP	
The material must be meet to GU-001				
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

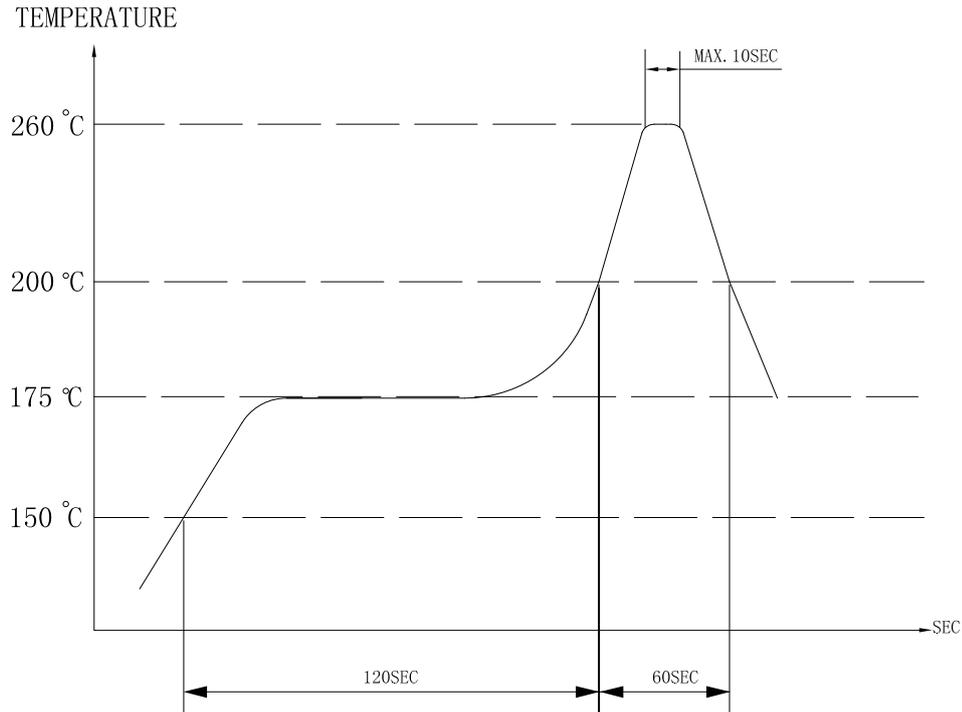


## 7.Soldering Condition

(1)Recommendable reflow soldering condition is as follows

(Reflow soldering is twice)

Note:It is requested that reflow soldering should be executed after heat of product goes down to normal.



Heat resistant line

(Used when heat resistant reliability test is performed)

(2)Manual soldering

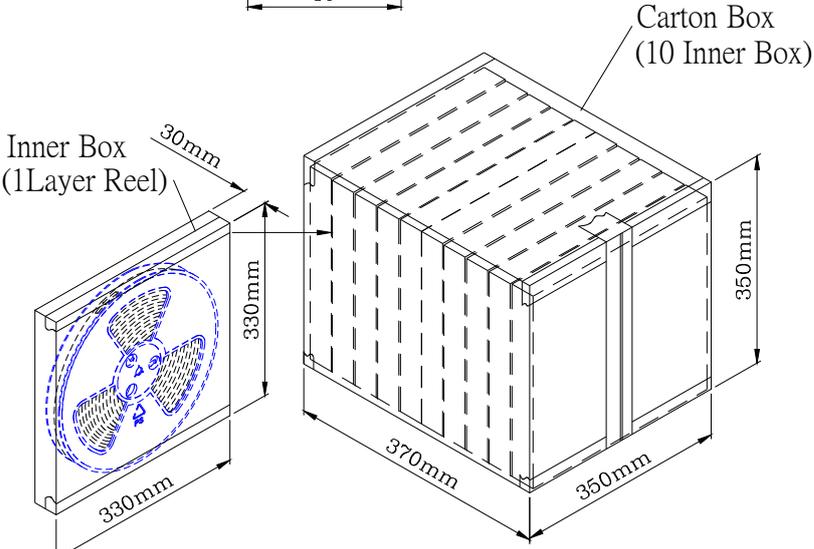
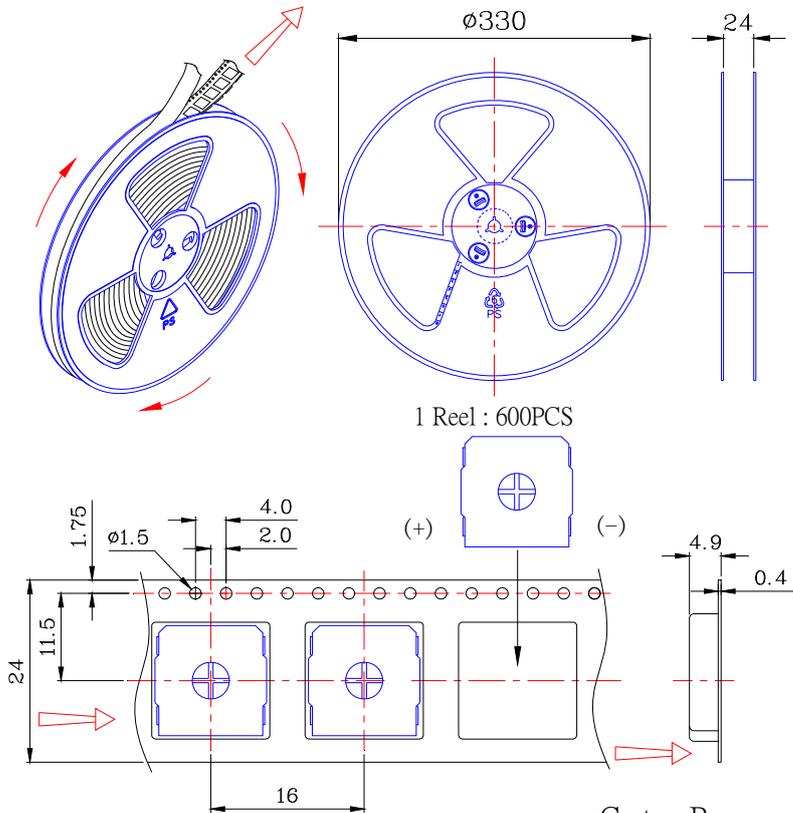
Manual soldering temperature 350° C within 5 sec.



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## 8.Dimensions

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Inner Box	330mmx330mmx30mm	1x600PCS=600PCS
Carton Box	350mmx350mmx370mm	10x600PCS=6,000PCS