

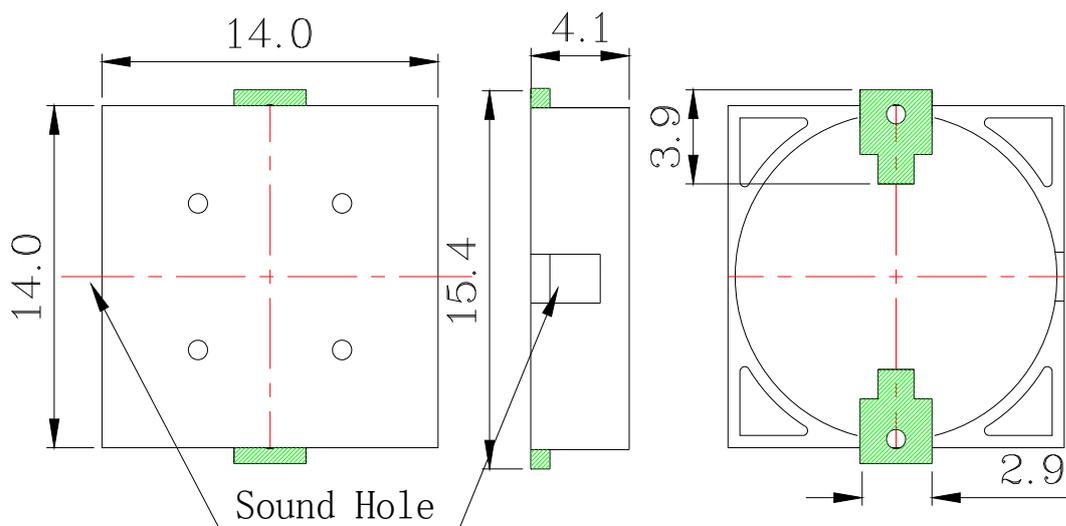
A. SCOPE

This specification applies SMD piezo buzzer, Passive drive type, **L-KLS3-SMT-14*04J**

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	4000	Square Wave
2	Operating Voltage	Vp-p	1~25	
3	Rated Voltage	Vp-p	5	
4	Current Consumption	mA	MAX. 5	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 80	at 10cm at Rated Voltage
6	Electrostatic Capacity	pF	15000±30%	at 100Hz 1V
7	Operating Temperature	°C	-40~ +85	
8	Storage Temperature	°C	-40 ~ +95	
9	Dimension	mm	14.1 x 14.1 x H4.1	See appearance drawing
10	Weight (MAX)	gram	1.2	
11	Housing Material		LCP(Black)	
12	Leading Pin		Plated Brass(Au)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING



Tol : ±0.5

Unit: mm



NingBo KLS ELECTRONIC CO.,LTD.

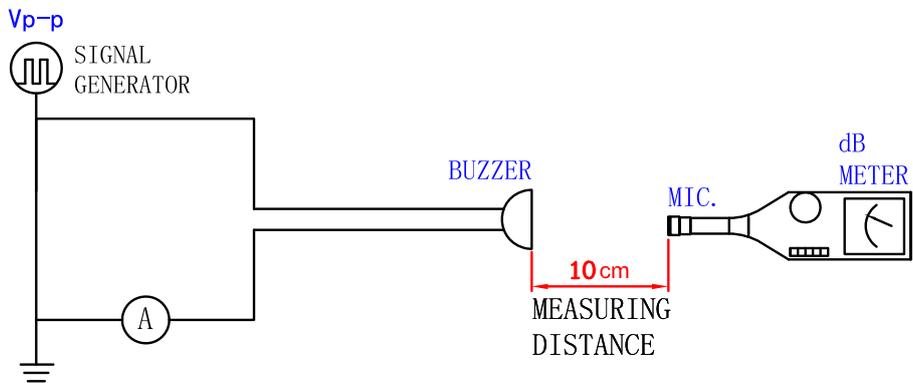
D. TESTING METHOD

Standard Measurement conditions

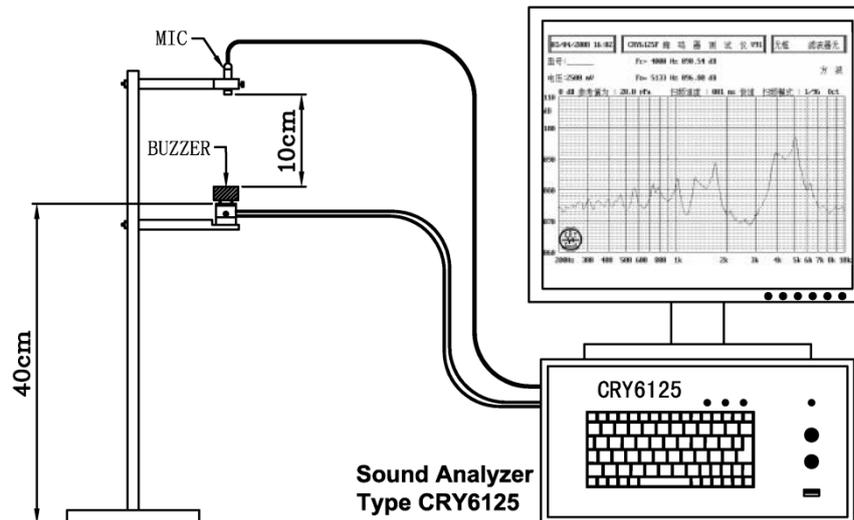
Temperature: $25 \pm 2^\circ\text{C}$ Humidity: 45-65%

Acoustic Characteristics:

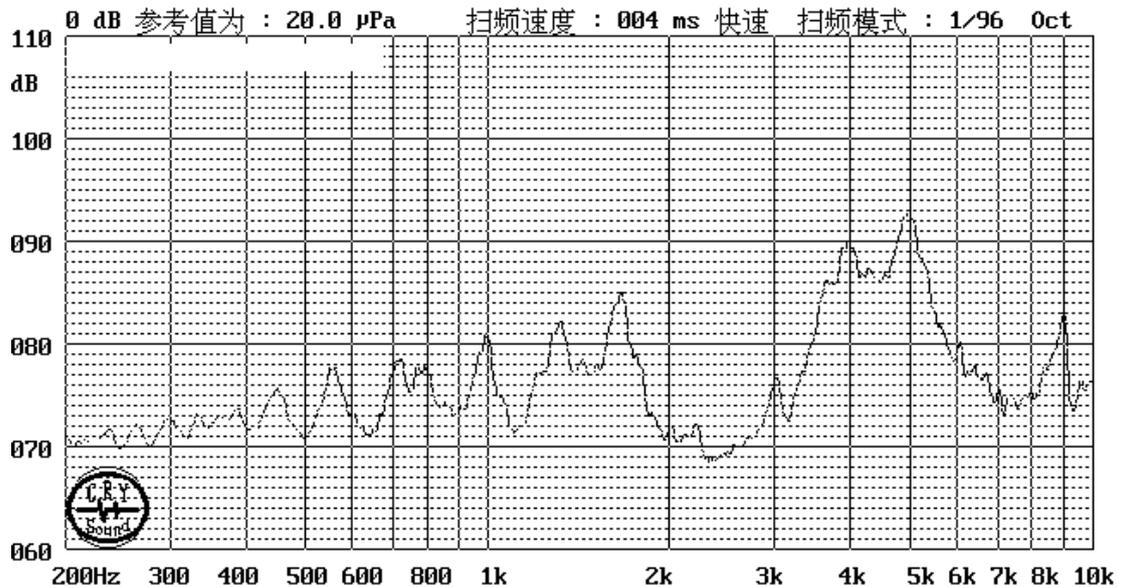
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



In the measuring test, buzzer is placed as follows:



E. Typical Frequency Response Curve

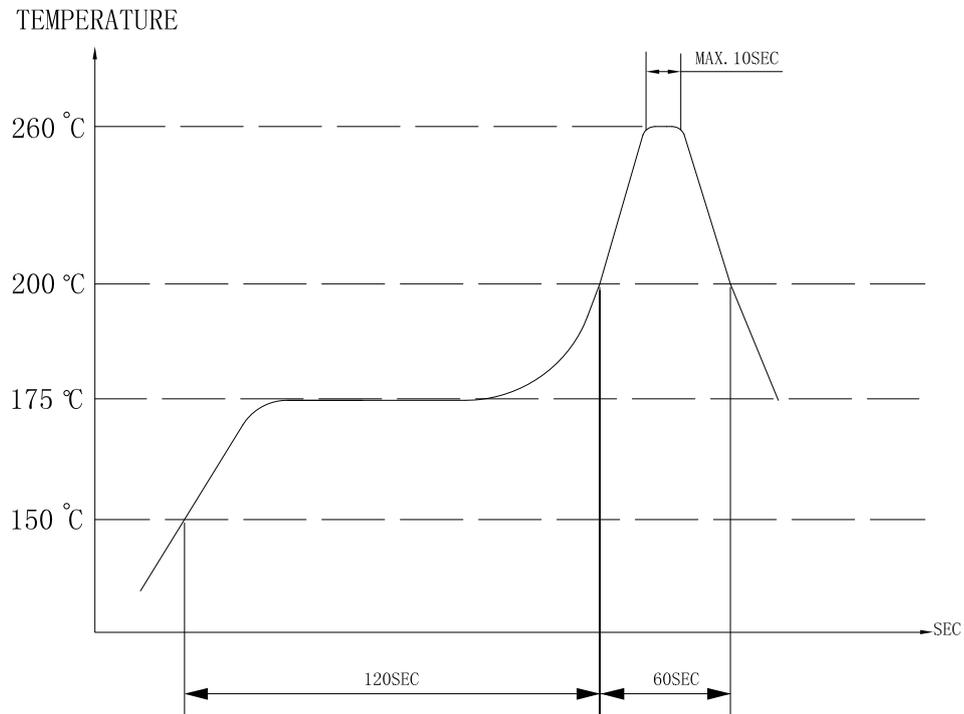


F. Soldering Condition

(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.

G. RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test	At +85°C input 9 Vp-p for 240 hours. Allowable variation of SPL after test: ±10dB.
2	Low Temperature Test	At -25°C input 9 Vp-p for 240 hours. Allowable variation of SPL after test: ±10dB.
3	High Temperature Test (Storage)	After being placed in a chamber with +85°C for 240 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
4	Low Temperature Test (Storage)	After being Placed in a chamber with -40°C for 240 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
5	Temperature & Humidity Cycle Test	<p>The receiver shall be cycle 5 times through as follows: a: 90-100% R.H b: 90-95% R.H</p> <p>5 cycles</p> <p>Allowable variation of SPL after test: ±10dB.</p>
6	Thermal Shock Test	<p>The part shall be subjected to 1000 cycles. One cycle shall be consist of :</p> <p>1000 cycles</p> <p>Allowable variation of SPL after test: ±10dB.</p>
7	Vibration Test	with 10 ~ 200 ~10 Hz sin-wave sweep 15min. 49m/sec ² (constant) X,Y,Z 3 direction 2 hours each total 6 hours. Allowable variation of SPL after test: ±10dB.
8	Fixed Drop Test	Fix on jig then drop from 152cm heigh to the concrete floor X,Y,Z 6 direction 5 times each total 30 times. Allowable variation of SPL after test: ±10dB.
9	Room Temperature Test	At Room temp input 9 Vp-p for 240 hours. Allowable variation of SPL after test: ±10dB.
10	DC Voltage Test	DC 2.53V for 1 hour.
11	Solderability Test	Pretreatment : 40 °C 90-95% R.H 240 hours. Soldering into solderbath:solder Temp. +235±5°C for 2±0.5 seconds .

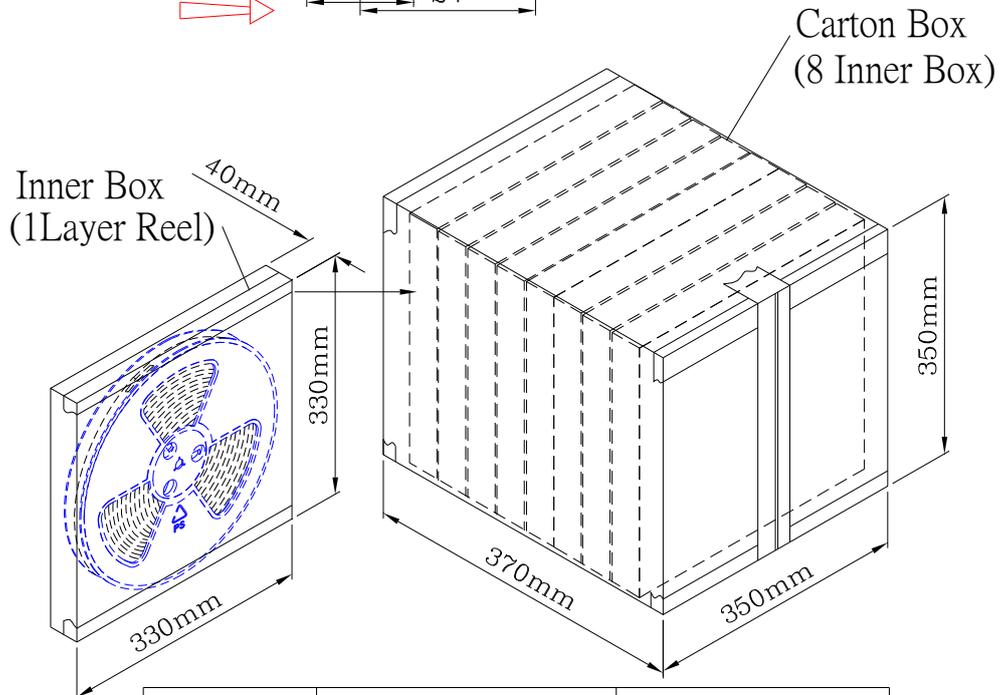
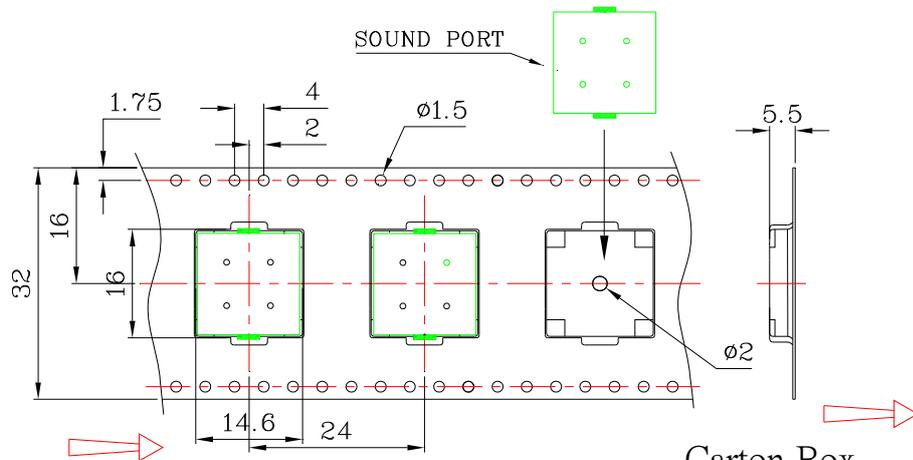
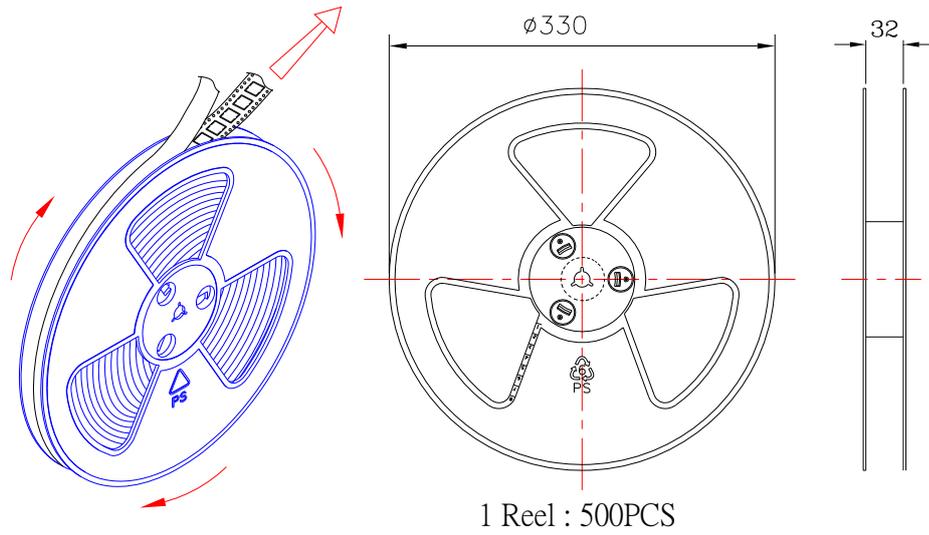
TEST CONDITION.

Standard Test Condition	:	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : +5 ~ +35°C	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2°C	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar



NingBo KLS ELECTRONIC CO.,LTD.

H. PACKING STANDARD



Inner Box	330mmx330mmx40mm	1x500PCS=500PCS
Carton Box	350mmx350mmx370mm	8x500PCS=4000PCS

