

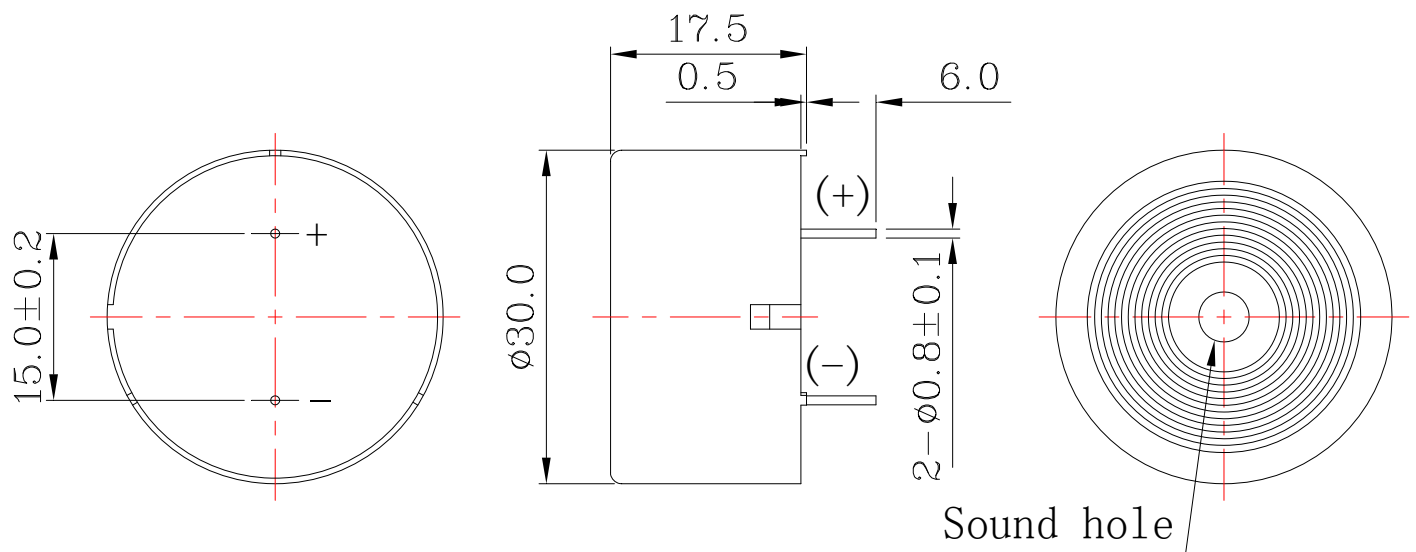
A. SCOPE

This specification applies Internally driven piezo buzzer, L-KLS3-PB-30*18

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	KHz	3.5±0.5	
2	Operating Voltage	V _{DC}	3~20	
3	Rated Voltage	V _{DC}	12	
4	Current Consumption	mA	MAX. 15	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 100	at 10cm at Rated Voltage
6	Tone Nature		Constant	
7	Operating Temperature	°C	-20~ +70	
8	Storage Temperature	°C	-30 ~ +80	
9	Dimension	mm	Φ30 x H17.5	See appearance drawing
10	Weight (MAX)	gram	6.7	
11	Housing Material		ABS (Black)	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING



Tol : ± 0.5

Unit: mm



NingBo KLS ELECTRONIC CO.,LTD.

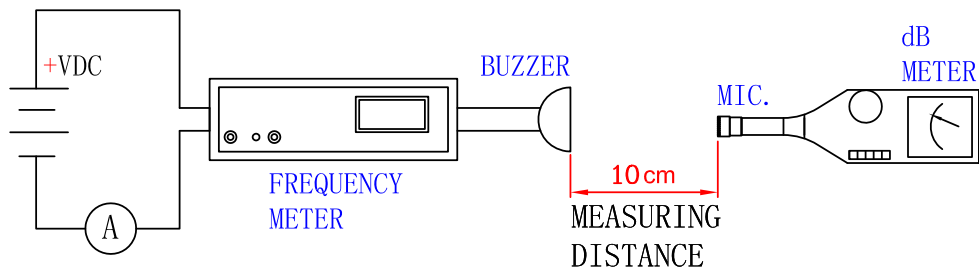
D. TESTING METHOD

Standard Measurement conditions

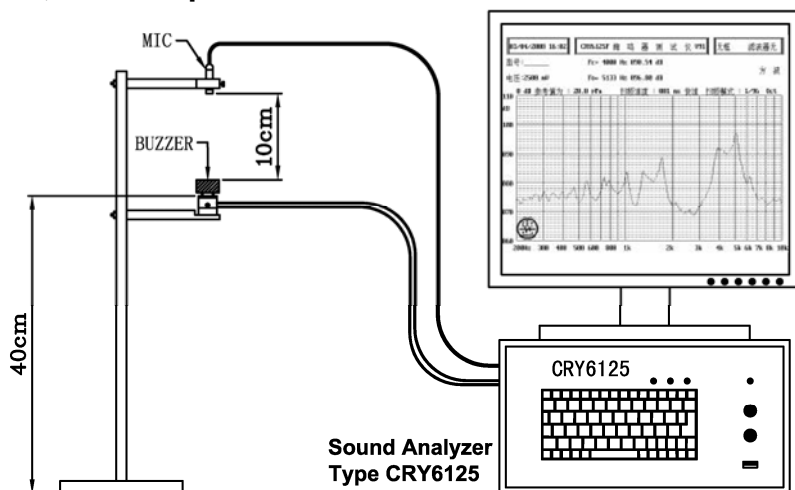
Temperature: $25 \pm 2^\circ\text{C}$ Humidity: 45-65%

Acoustic Characteristics:

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



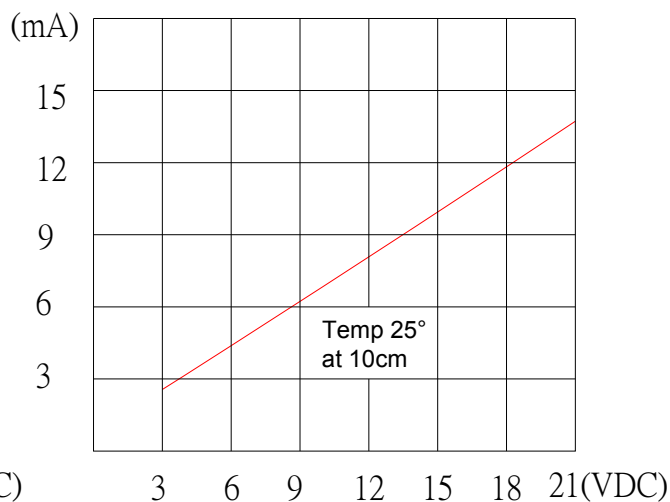
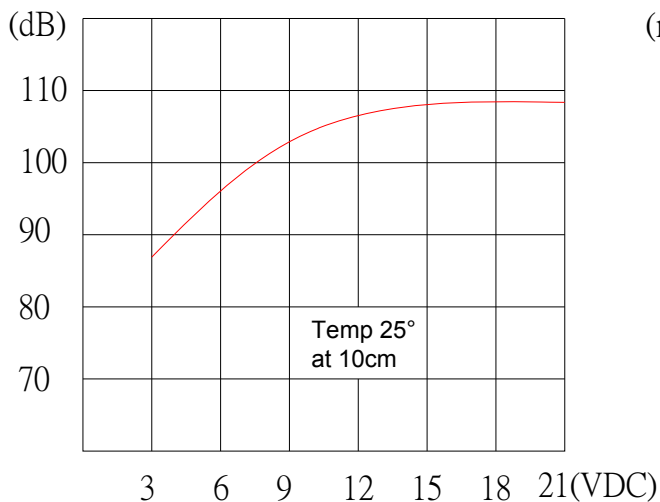
In the measuring test, buzzer is placed as follows:



E. VOLTAGE / CURRENT / SOUND PRESSURE CHARACTERISTICS

dB-V

mA-V



F. RELIABILITY TEST

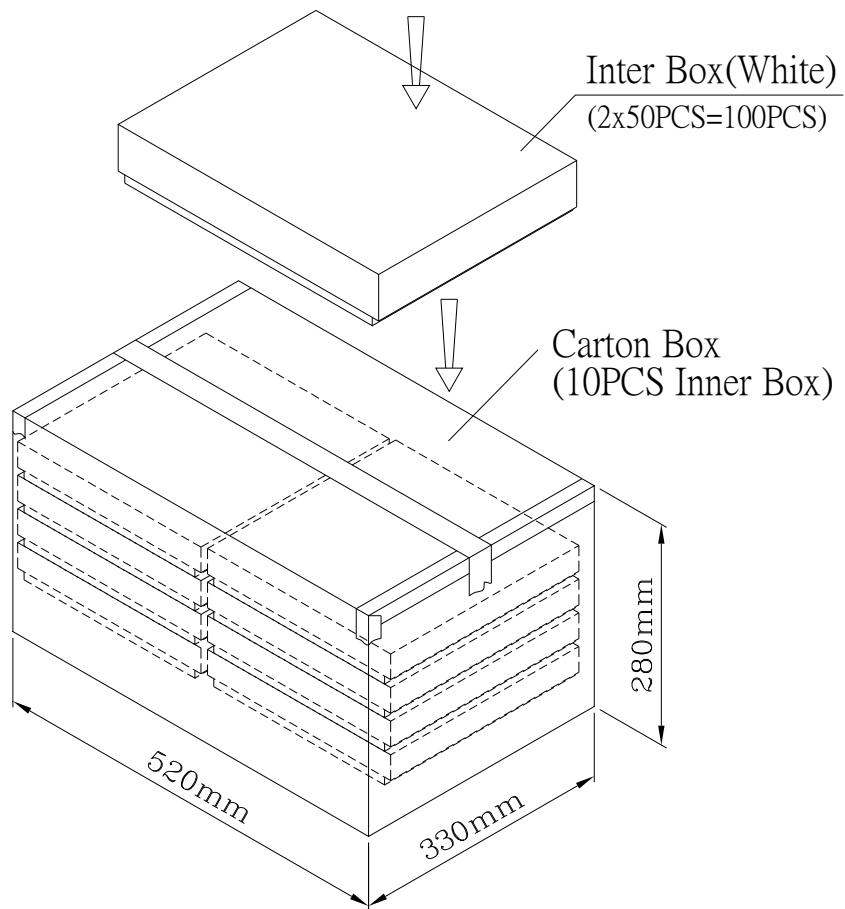
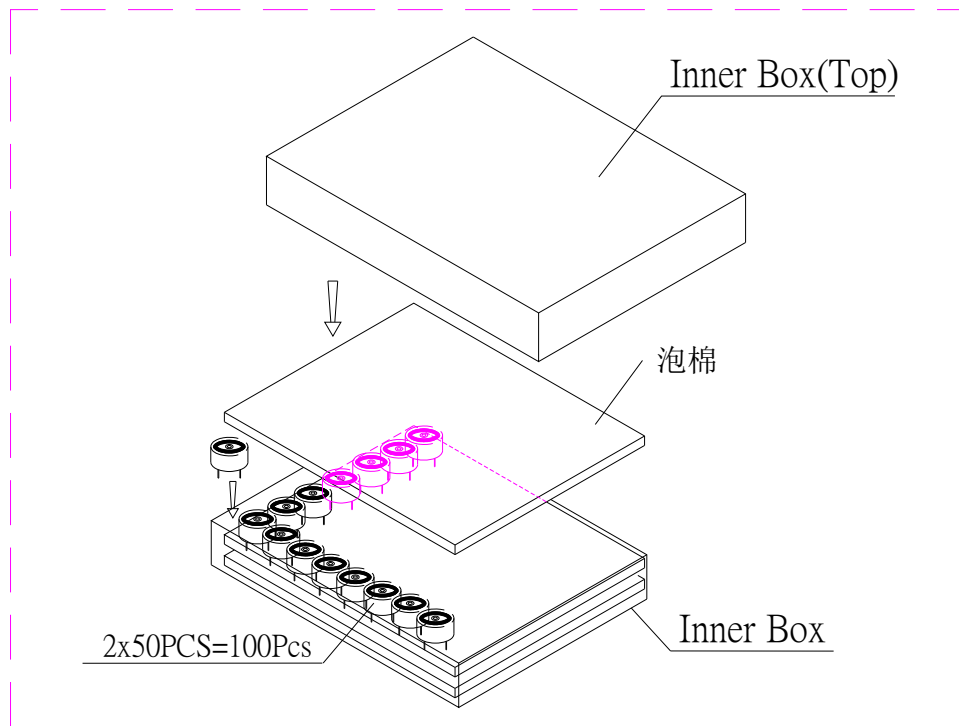
NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with $80\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
2	Low Temperature Test (Storage)	After being Placed in a chamber with $-30\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at $40\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
4	Temperature Cycle Test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of :</p> <p style="text-align: center;"> -20°C $+25^{\circ}\text{C}$ $+70^{\circ}\text{C}$ $+25^{\circ}\text{C}$ 0.5hr 0.5 0.25 0.5 0.5 0.5 0.25 3hours </p> <p>Allowable variation of SPL after test: $\pm 10\text{dB}$.</p>
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm . Allowable variation of SPL after test: $\pm 10\text{dB}$.
6	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours . Allowable variation of SPL after test: $\pm 10\text{dB}$.
7	Solderability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+300\pm 5^{\circ}\text{C}$ for 3 ± 1 seconds . 90% min. lead terminals shall be wet with solder (Except the edge of terminals).
8	Terminal Strength Pulling Test	The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

TEST CONDITION.

Standard Test Condition	:	a) Temperature : $+5 \sim +35^{\circ}\text{C}$	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : $+5 \sim +35^{\circ}\text{C}$	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : $+25 \pm 2^{\circ}\text{C}$	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : $+25 \pm 2^{\circ}\text{C}$	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar



G. PACKING STANDARD



泡棉		1x50PCS=50PCS
Inner Box	315mmx245mmx50mm	2x50PCS=100PCS
Carton Box	520mmx330mmx280mm	8x100PCS=800PCS



NingBo KLS ELECTRONIC CO.,LTD.