



# specification

## SHEET FOR APPROVAL

Part Name: YX-SMD1203

Type: Magnetic Sounder

Customer Name: \_\_\_\_\_

Number of the Edition: \_\_\_\_\_



	Approved by	Checked by	Issued by
Signature		张爱琴	
Date			

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# Magnetic Sounder

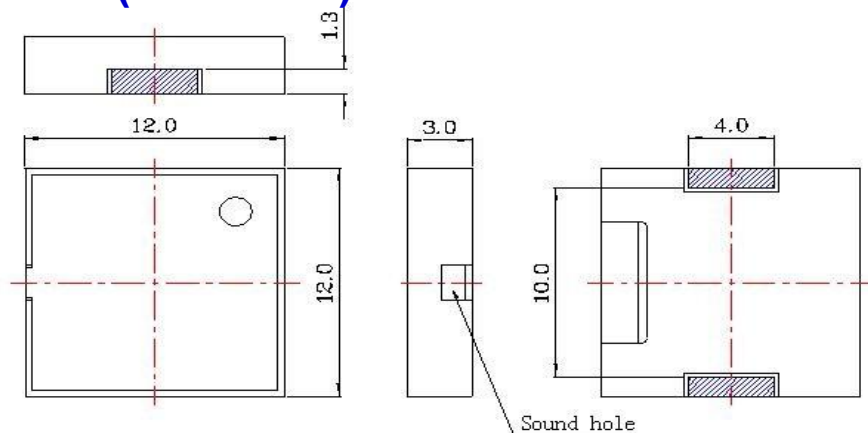


## YX-SMD1203

### Electrical Characteristics

Model No	Unit	Specification	Condition
Oscillation Frequency	Hz	4000	Square Wave
Operating Voltage	Vp-p	1~25	
<b>Rated Voltage</b>	Vp-p	3	
Current Consumption	mA	MAX. 9	at Rated Voltage
Sound Pressure Level	dB	MIN. 75	at 10cm at Rated Voltage
Electrostatic Capacity	pF	16000 ± 30%	at 100Hz 1V
Operating Temperature	°C	-20~ +70	
Storage Temperature	°C	-30 ~ +80	
Dimension	mm	12 x 12 x H3	See appearance drawing
Weight (MAX)	gram	0.4	
Housing Material		LCP( Black )	
Environmental Protection Regulation		RoHS	

### Dimensions : (Unit: mm)



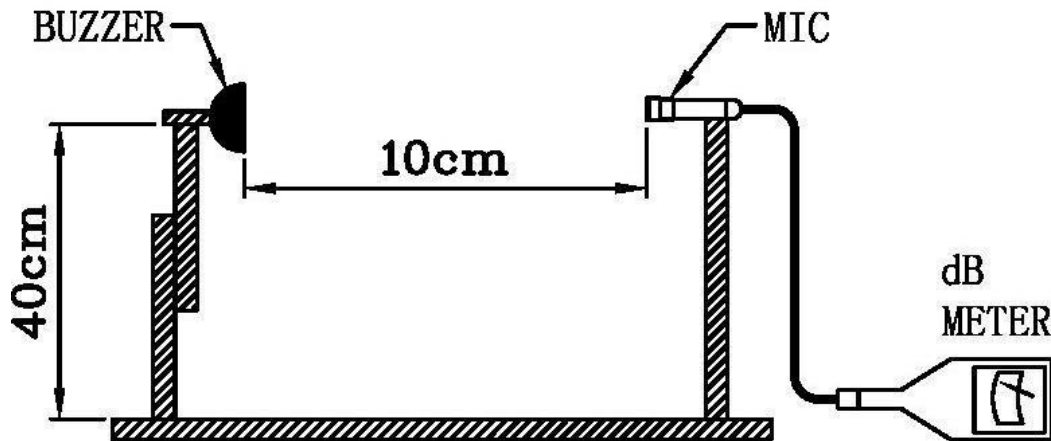
## A: TESTING METHOD

### Standard Measurement :

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

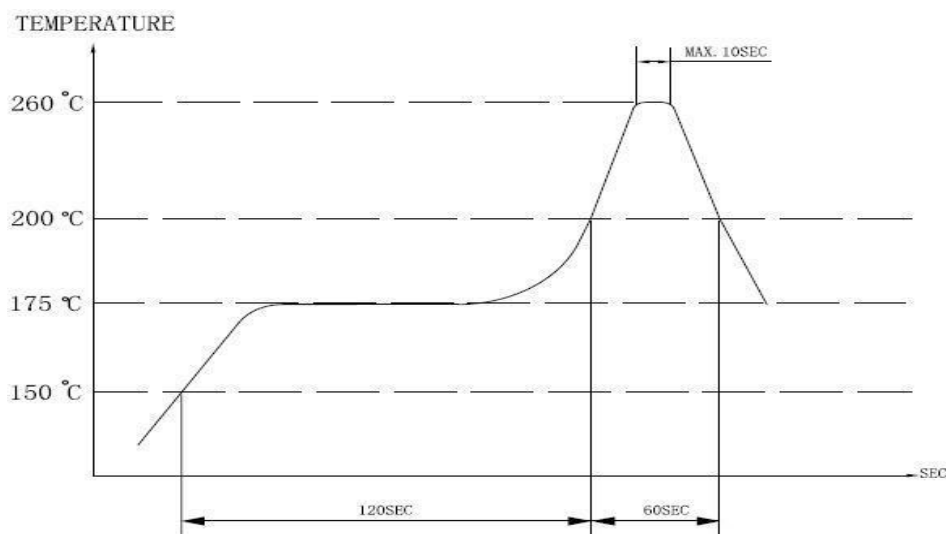


In the measuring test, buzzer is placed as follows:

## B: 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

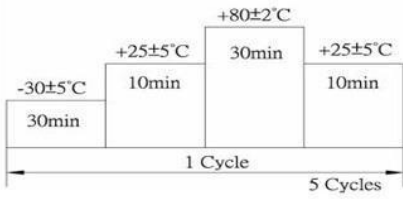
(2) Manual soldering

Manual soldering temperature  $350^\circ\text{C}$  within 5 sec

## C. MECHANICAL CHARACTERISTICS

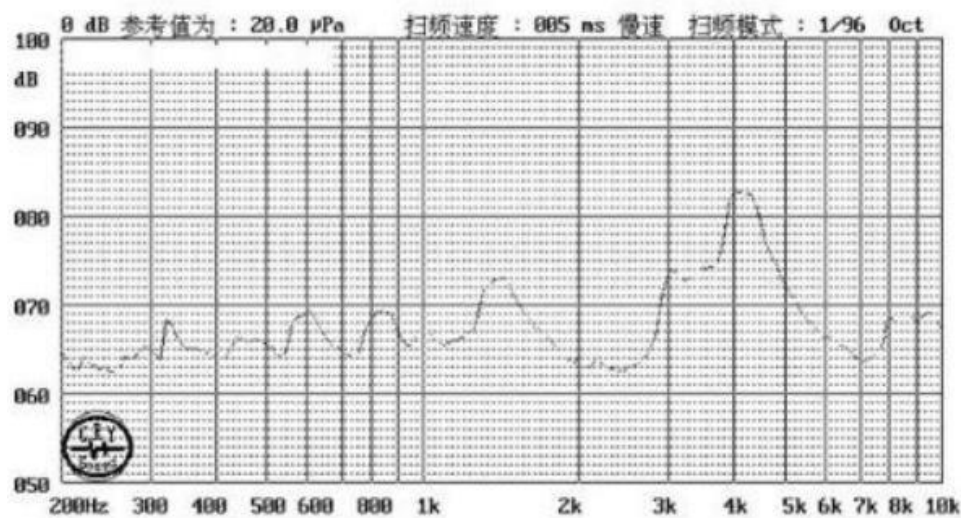
NO.	item	Test Condition	Evaluation standard
1	Solder ability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm 5$ for $3\pm 1$ seconds.	90% min. lead terminals shall be wet with solder. (Except the edge of terminal)
2	Soldering Heat Resistance	Lead terminal are immersed up to 1.5mm from sounder's body in solder bath of $+300\pm 5$ for $3\pm 0.5$ seconds or $+260\pm 5$ for $10\pm 1$ seconds	No interference in operation
3	Terminal Mechanical Strength	The force 10 seconds of 9.8N (1.0kg) is applied to each terminal in axial direction.	No damage and cutting off
4	Vibration	Buzzer shall be measured after being applied vibration of amplitude of 0.75mm with 10 to 55hz band of vibration frequency to each of 3per-pendicular directions for 0.5 hours.	The value of oscillation frequency/ current consumption should be in 10% compared with initial ones .The SPL should be in $\pm 10$ dB compared with initial one.
5	Drop test	The part only shall be dropped from a height of 70cm onto a 10mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times).	

## D. ENVIRONMENT TEST

NO.	item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $+80$ for 96 hours	<p>Being placed for 4 hours at <math>+25</math> , buzzer shall be measured. The value of oscillation frequency/ current consumption should be in <math>\pm 10\%</math></p> <p>compared with initial ones .The SPL should be in <math>\pm 10</math>dB compared with initial one.</p>
2	Low temp. test	After being placed in a chamber with $-30$ for 96 hours	
3	Humidity test	After being placed in a chamber at $+40$ and 90 5% relative humidity for 96 hours	
4	Temp. cycle test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of:</p>  <p>Diagram description: A temperature profile graph showing 5 cycles. The temperature starts at <math>-30\pm 5^{\circ}\text{C}</math> for 30min, rises to <math>+25\pm 5^{\circ}\text{C}</math> for 10min, then to <math>+80\pm 2^{\circ}\text{C}</math> for 30min, and finally returns to <math>+25\pm 5^{\circ}\text{C}</math> for 10min. This sequence is repeated 5 times.</p>	

F.FREQUENCY RESPONSE:

Applied voltage:5.0Vp-p,squae wave:1/2duty Distance for measurement:10cm with recommended cavity



G. PACKING FORMAT (UNIT: mm)

