

MESSRS.

**SPECIFICATION FOR APPROVAL**  
**承 认 书**

Product	<b>MAGNETIC BUZZER ( INDICATOR )</b>
Part No.	<b>HX-1205-P19 (无卤)</b>
Customer Approval	

Approved By	Checked By	Made By
王台平 JUN-15-2020	曹丽萍 JUN-15-2020	LILY JUN-15-2020

**常州华龙电子有限公司**  
**DRAGONSTATE ELECTRONIC CORPORATION**

中国江苏省常州市新区电子园新四路 36 号

Tel: +86-519-85110078. 86-519-85106698,      Fax: +86-519-85101081

EDITION:1.1



## History change record

## 1. Specifications

**HX-1205-P19 (无卤)**

Items		Units	Specifications	Conditions
01	Rated Voltage	VDC	5	Response Time 500 mSec
02	Operating Voltage	VDC	4~7	Volts D.C
03	Consumption Current	mA (Max)	Mean 35	Applying rated voltage
04	Direct Current Resistance	Ohm	None	
05	Sound Output	dBA (min)	85	Distance at 10cm, applying rated voltage
06	Basic Frequency	Hz	2300± 300	
07	Operating Temp.	°C	-40 ~ +85	
08	Storage Temp.	°C	-40~ +85	
09	Weight	Gram	2	

## 2. Measuring Method

### 2-1. Test Condition

**STANDARD**

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

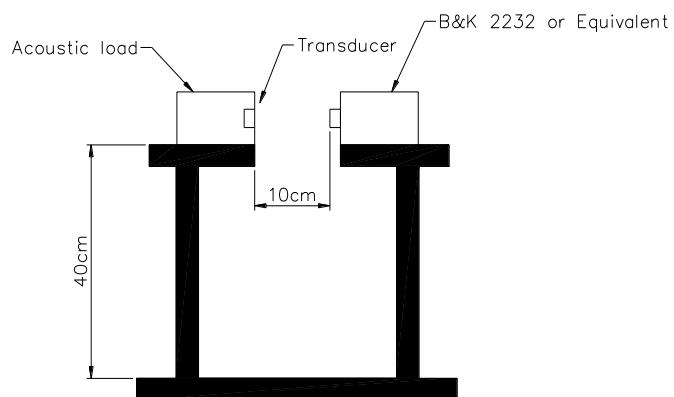
**JUDGEMENT**

Temperature : 20±3 °C

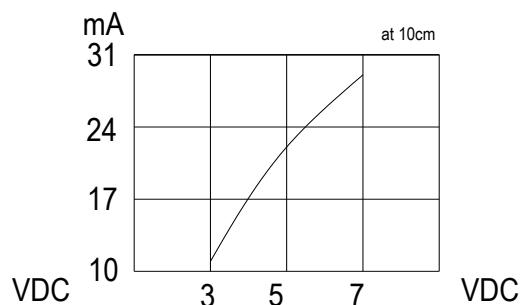
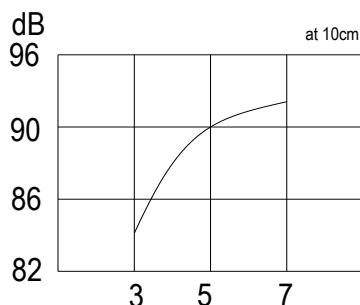
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

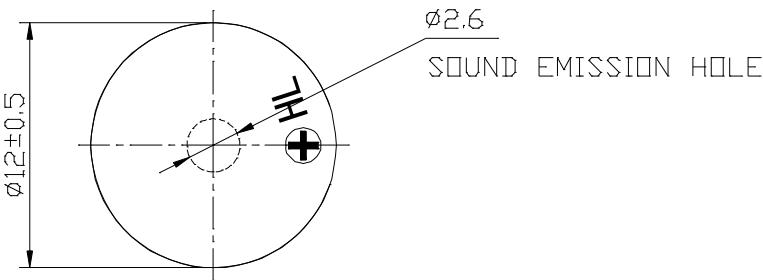
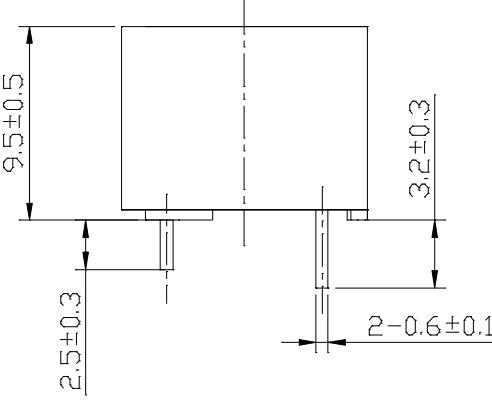
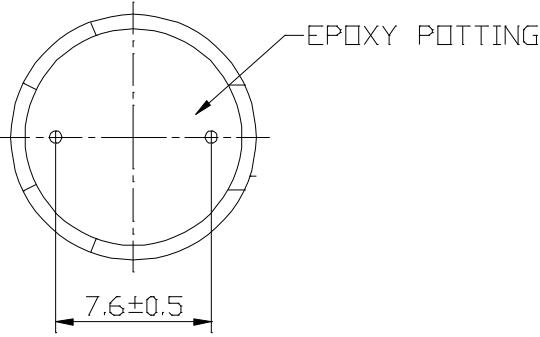
### 2-3. Standard Test Fixture



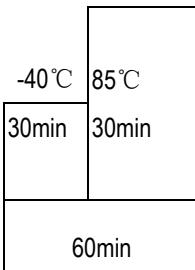
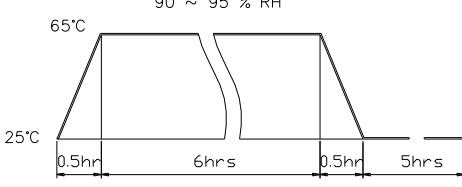
### 2-4. Frequency Response Curve



### 3. Dimension

REV NO.	REVISION NOTE	APPROVAL	DATE																		
 <p>Top View Dimensioning:</p> <p>Outer Diameter: <math>\phi 12 \pm 0.5</math></p> <p>Sound Emission Hole: <math>\phi 2.6</math></p>																					
 <p>Side View Dimensioning:</p> <p>Total Height: <math>9.5 \pm 0.5</math></p> <p>Bottom Plate Thickness: <math>2.5 \pm 0.3</math></p> <p>Bottom Hole Distance: <math>2 - 0.6 \pm 0.1</math></p> <p>Side Wall Thickness: <math>3.2 \pm 0.3</math></p>																					
 <p>Bottom View Dimensioning:</p> <p>Epoxy Potting: <math>7.6 \pm 0.5</math></p>																					
<p><b>TITLE: SOUND TRANSDUCER DIMENSIONS</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">PART NO. <b>HX-1205-P19</b></td> <td style="width: 30%;">DRAWN: <b>Lily</b> <b>2019/12/26</b></td> <td style="width: 10%;">SCALE: <b>2.5/1</b></td> <td style="width: 30%;">SHEET: <b>1 OF 1</b></td> </tr> <tr> <td>DWG NO. <b>DTE-3869</b></td> <td>DESIGNED: <b>R&amp;D OF D.S.</b></td> <td>UNITS: <b>mm</b></td> <td></td> </tr> <tr> <td rowspan="3" style="text-align: center; vertical-align: middle;">1</td> <td>CHECKED: <b>Emily</b></td> <td colspan="2">TOLERANCE <math>\pm 0.5</math></td> </tr> <tr> <td>APPROVAL: <b>Eric</b></td> <td colspan="2">UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL <math>\pm ***</math></td> </tr> <tr> <td>REV <b>MATERIAL: NORYL</b></td> <td colspan="2">TWO PLACE DECIMAL <math>\pm ***</math></td> </tr> </table> <p><b>DS DRAGONSTATE ELECTRONIC CORPORATION</b></p>				PART NO. <b>HX-1205-P19</b>	DRAWN: <b>Lily</b> <b>2019/12/26</b>	SCALE: <b>2.5/1</b>	SHEET: <b>1 OF 1</b>	DWG NO. <b>DTE-3869</b>	DESIGNED: <b>R&amp;D OF D.S.</b>	UNITS: <b>mm</b>		1	CHECKED: <b>Emily</b>	TOLERANCE $\pm 0.5$		APPROVAL: <b>Eric</b>	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL $\pm ***$		REV <b>MATERIAL: NORYL</b>	TWO PLACE DECIMAL $\pm ***$	
PART NO. <b>HX-1205-P19</b>	DRAWN: <b>Lily</b> <b>2019/12/26</b>	SCALE: <b>2.5/1</b>	SHEET: <b>1 OF 1</b>																		
DWG NO. <b>DTE-3869</b>	DESIGNED: <b>R&amp;D OF D.S.</b>	UNITS: <b>mm</b>																			
1	CHECKED: <b>Emily</b>	TOLERANCE $\pm 0.5$																			
	APPROVAL: <b>Eric</b>	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL $\pm ***$																			
	REV <b>MATERIAL: NORYL</b>	TWO PLACE DECIMAL $\pm ***$																			

## 4. Reliability Test

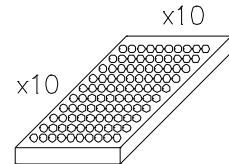
Item		Test conditions	Evaluation standard
01	<b>High temp.Storage life</b>	The part shall be capable of withstanding a storage Temperature of 85°C for 96 hours.	
02	<b>Low temp.Storage life</b>	The part shall be capable of withstanding a storage Temperature of -40°C for 96 hours.	
03	<b>Temp. cycle</b>	<p>The part shall be subjected 10 cycles. One cycle shall consist of;</p> 	<p>After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L. S.P.L shall be 78dB or more.</p>
04	<b>Temp./Humidity cycle</b>	<p>The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of;</p> 	
05	<b>Operating life</b>	<p>Rated Voltage applied.</p> <ol style="list-style-type: none"> <li>1. Ordinary temperature The part shall be subjected to 1000 hours at room temperature (25 ±10°C)</li> <li>2. High temperature The part shall be subjected to 500 hours at 85°C</li> <li>3. Low temperature The part shall be subjected to 500 hours at -40°C</li> </ol>	
06	<b>Lead Strength</b>	Pull load on the direction of the lead axis for 10 ±1 sec.	
07	<b>Vibration</b>	The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3G). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.	

Item		Test conditions	Evaluation standard
08	<b>Fixed drop</b>	The part shall be mounted on standard pc board and dropped from a height of 152cm onto a concrete floor 5 times in each 6 planes.(a total of 30 times)	
09	<b>Free drop</b>	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times).	After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L S.P.L shall be 78dB or more.
10	<b>Solder heat resistance</b>	Soldering into solderbath : $350\pm5$ °C Soaking time : $3.5\pm0.5$ sec	
11	<b>Solder ability</b>	Soldering : $265\pm5$ °C / 5 Sec. $350\pm5$ °C / 1.5 Sec Soldering t into solderbath : $250\pm5$ °C Soaking time : $2\pm0.5$ sec.	
12	<b>Lead strength</b>	Pull lead with a force of 10N, on the direction of the lead axis for 10 : $10\pm1$ sec	
13	<b>Washability</b>	Solvent : deionized water Solvent temp. : $55\pm5$ °C Soaking time : $5\pm0.5$ min.	
14	<b>Half-sine shock pulsed</b>	Three shocks in each direction applied along 3 mutually perpendicular planes, 18 total shock. Velocity : 50 G's Duration: 11 milliseconds	

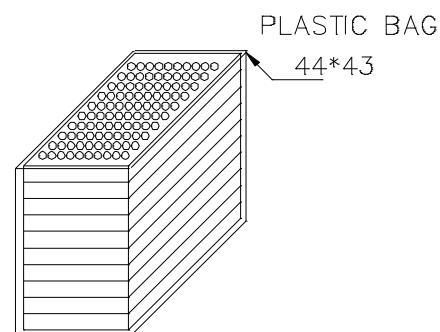
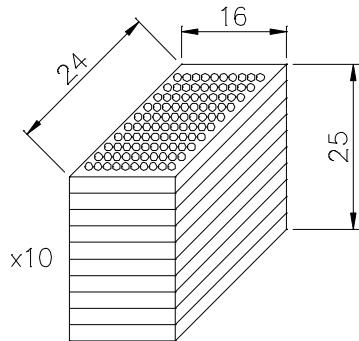
## 5.Packing

REV NO.	REVISION NOTE	APPROVAL	DATE

1 FLAT = 100 PCS.

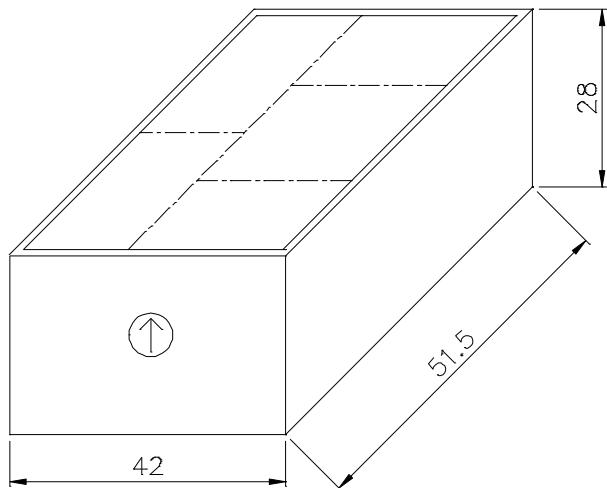


10 FLAT = 1 SMALL BOX



5 SMALL BOX = 1 BIG BOX

Gross Weight : 10Kgw.  
Net Weight : 11.5Kgw.  
MADE IN CHINA



TITLE: PACKING	DRAWN: Lily 2013/05/29	SCALE:	SHEET:
PART NO.	DESIGNED: R&D OF D.S.	UNITS: cm	
	CHECKED: Emily	TOLERANCE $\pm 0.1$	UNLESS OTHERWISE SPECIFIED:
DWG NO.	APPROVAL: Eric	ONE PLACE DECIMAL $\pm ***$	
	REV	MATERIAL: *****	TWO PLACE DECIMAL $\pm ***$
			THREE PLACE DECIMAL $\pm ***$

DS

DRAGONSTATE ELECTRONIC CORPORATION