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佛山鎡利電子有限公司
Vanson Electronics(Nanhai) Limited

Luocun Industrial zone Nanhai District Foshan city

Guangdong Province China E-mail:vecof@fs165.com

廣東省佛山市南海區羅村工業區 郵編:528226

TEL:+86-757-8853 6828 FAX:+86-757-8853 6826

Specification

規格書

品名 (Product Name)	揚聲器 (Speaker)
料號 (Model No.)	PCB-08-8-D

Revision History			
Version	Date	Description	Author
V1.0	2020/03/31	Creation	HXY

核準 (Approval)	高紅華	2020/03/31
審查 (Check)	曾憲財	2020/03/31
設計 (Designer)	王麗紅	2020/03/31
制作 (Author)	何曉穎	2020/03/31

VECO Vanson Electronics(Nanhai)Limited

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1.	MODEL:	CB-08-8-D
2.	Dimension & Weight	Outer Diameter 23ϕ mm Height Refer to drawing Weight 3.6 Grams
3.	Magnet	Materials Rare Earth Size ϕ6.5X1.5 mm
4.	Nominal Impedance	8 $\Omega \pm 15\%$, At 2500 Hz.
5.	Power Rating	Normal 0.1 Watts Maximum 0.2 Watts Sine Wave. Normal Watts Maximum Watts Square Wave.
6.	Resonant Frequency	1200 $\pm 20\%$ Hz.
7.	Output Sound Pressure Level (S.P.L.)	74 ± 3 db/ 0.1 Watt \cdot 0.5 Meter Average at 1200, 1500, 2000, 2500 Hz.
8.	Frequency Range	900 \sim 4000 Hz. Average SPL – 10 db.
9.	Distortion	5 % Maximum At 1000 Hz. 0.1 W.
10.	Abnormal Sound test	Must be Normal Tested By 0.9 Volts. Sine Wave.
11.	Load Test	White Noise 0.9 Volts. (RMS.) 96 Hours.
12.	Polarity	Diaphragm shall move Forward while Apply a Positive DC Signal to the " + " or " Marked " Terminal.

Above Measuring condition under temperature : 15~35 $^{\circ}$ C R.H. 25 ~75%. According to standard GB/T9396-1996

Mechanical and vibration test

13.	High Temperature	+ 60 \pm 2 $^{\circ}$ C Humidity Random for 96 Hours. (GB2423.2-81)
14.	Low Temperature	- 25 \pm 2 $^{\circ}$ C Humidity Random for 96 Hours. (GB2423.1-81)
15.	Humidity	+ 40 \pm 2 $^{\circ}$ C Relative Humidity (RH) 90 ~ 95 % 48 Hours.
16.	Vibration	Frequency 30 \pm 15 Hz, Amplitude 1.5 mm for 3 Hours. (GB11606.8-89)
17.	Drop test	75 CM free falling on Concrete floor, 10 times. (GB2423. 8-81)

After test leave speakers at room temperature for 1 hour, SPL shall not deviate by ± 3 db from pre-test

18.	Temperature Cycle test	- 25 ~ + 60 $^{\circ}$ C 4 Cycles Temperature test. (GB5170.18-87)
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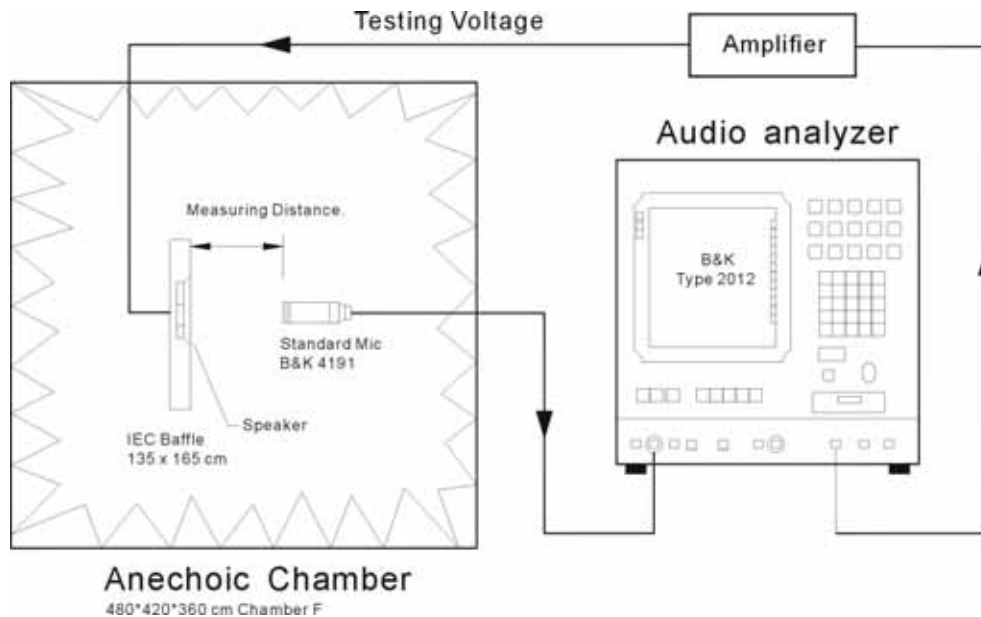
After test leave speakers at room temperature for 1 hour, SPL shall not deviate by ± 3 db from pre-test Measurement, and meet above spec. item 6. 7. 8. 9. 10.

Please refer to next pages for more detailed testing method.

Test method and User precaution.

1. Characteristics measured according to standard GB/T 9396-1996

- 1.1 Except other specified, measuring are under Temperature 15~35°C R.H. 25 ~75%
 - 1.2 Judgement condition Temperature 20 ±2 R.H. 63~67%
 - 1.3 .Product shelf life is valid for 12 months only.
2. Output Sound Pressure Level (S.P.L.) and distortion testing setup



3. Environment & Mechanical test:

3.1 High Temperature: GB2423.2-81

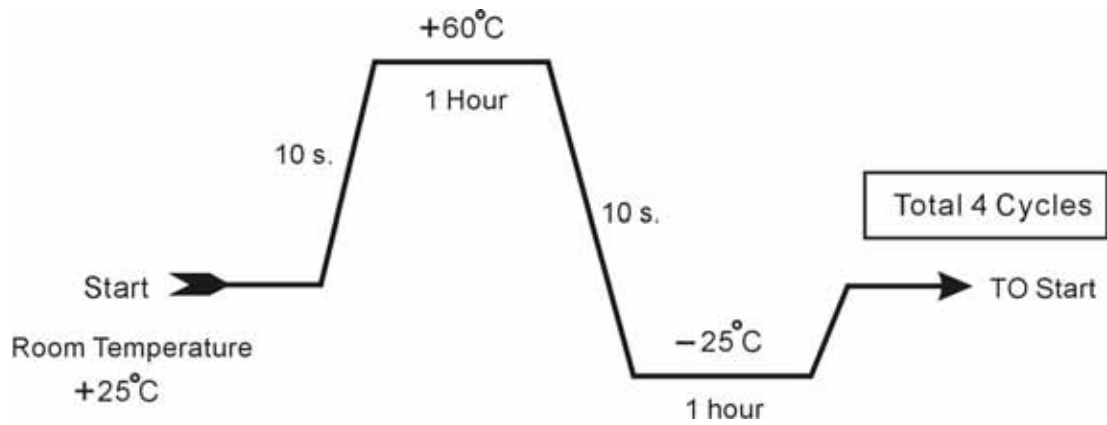
After exposure the speaker in the + 55 ± 2 °C chamber for 96 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by ± 3 db, and resonant frequency should not deviate by ± 50 Hz, compare with pre-test measurement.

3.2 Low Temperature: GB2423.1-81

After exposure the speaker in the -20 ± 2 °C chamber for 96 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by ± 3 db, and resonant frequency should not deviate by ± 50 Hz, compare with pre-test measurement.

3.3 Temperature cycle: GB5170.18-87

After exposure the speaker in the chamber, temperature cycle setting as below shows, SPL should not deviate by ± 3 db, and resonant frequency should not deviate by ± 80 Hz, compare with pre-test measurement.



3.4 Humidity: GB5170.18-87

After exposure the speaker in the + 40±2 °C, relative humidity 90% ~ 95% chamber for 48 hours, then leave the speaker at room temperature for 6 hours, the SPL should not deviate by ±3 db, and resonant frequency should not deviate by ±50 Hz, compare with pre-test measurement.

3.5 Vibration: GB11606.8-89

Frequency 30±15 Hz, Amplitude 1.5 mm for 3 Hours. After test, SPL shall not deviate by ±3 db from pre-test measurement,

3.6 Load test: GB/T 9396-1996

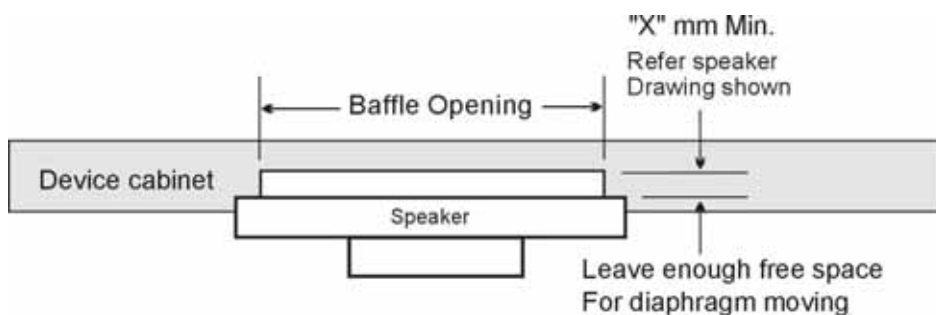
Speaker should not fail after apply 20 ~ 20K Hz white noise rated power input (RMS), 96 hours. After test, SPL shall not deviate by ±3 db from pre-test measurement,

3.7 Drop test: GB2423. 8-81

75 cm free falling on concrete floor, 10 times. After test, SPL shall not deviate by ±3 db from pre-test measurement,

4. Mounting **precaution**

In order to keep speaker work normally, there shall leave enough free space for diaphragm moving, minimum distance required is marked in speaker mechanical drawing.



5. Measuring & standard referenced

Abstract from GB/T 9396-1996 and IEC 268-5:1989 methods of measurement for main characteristics of loud speakers.

5.1 Rated sine voltage.

It is stipulated by manufacturer, sine signal voltage that make speaker work continuously

in rated frequency range, but the speaker wouldn't be damaged heartily or mechanically.

The persist time of the voltage is 1 hour.

5.2 The rated sine power.

The rated sine power is corresponding with the rated sine voltage, its definition is U_s^2/R ,

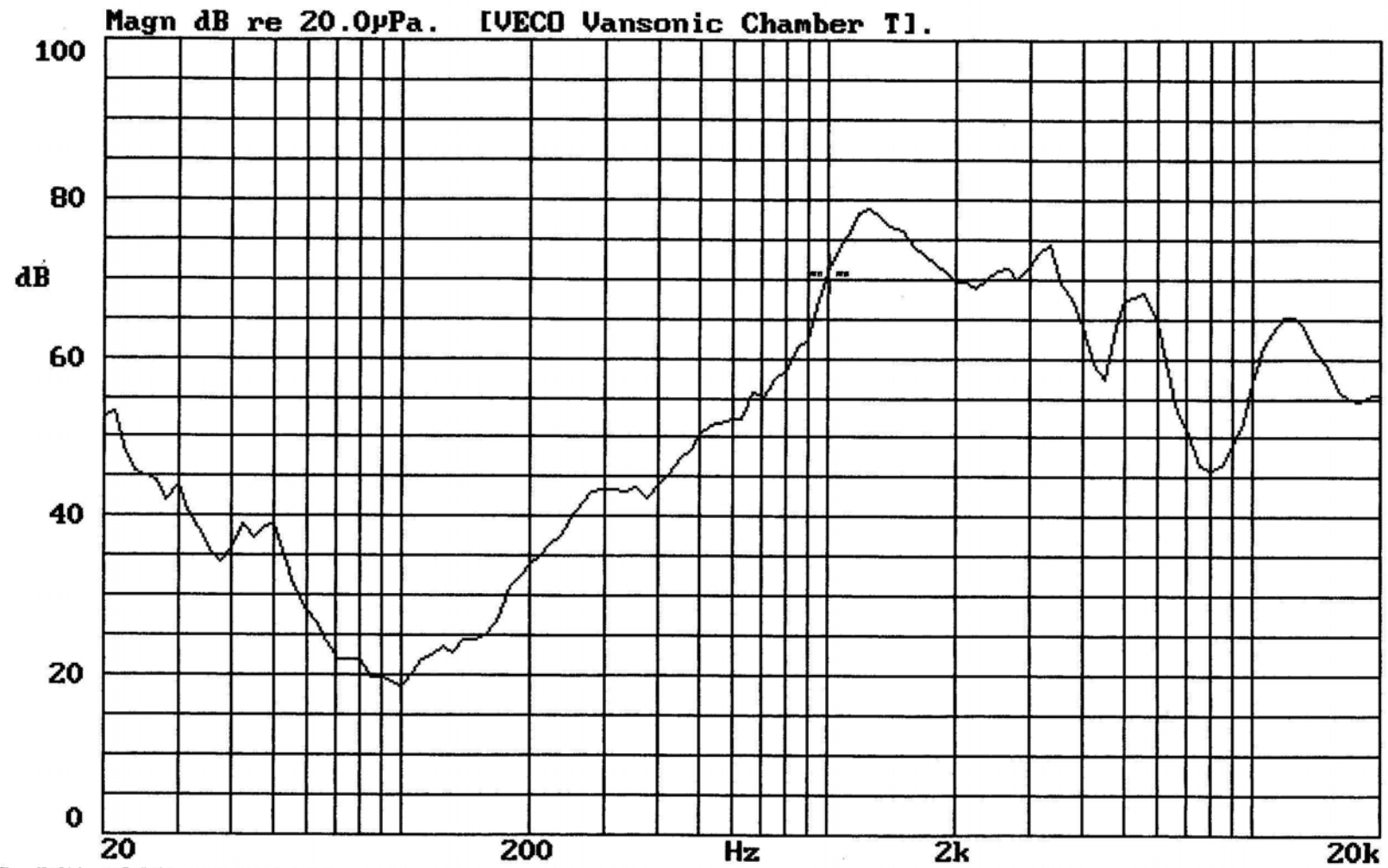
U_s indicates the maximum sin voltage, R indicates the rated impedance.

5.3 The rated noise power.

The rated noise power is corresponding with the rated noise voltage, its definition is U_n^2/R ,

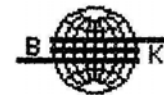
U_n indicates the rated noise voltage, R indicates the rated impedance.

CB-08-8-D 8Ω Vol:0.894V(0.1W) Dis:0.5M VANSONIC
X:1.0000kHz *Y:70.67dB ZA:Live Curve SSR Fund.



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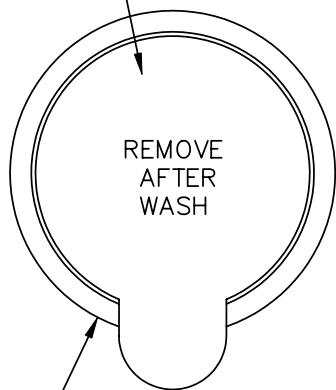
Mode: SPEAKER



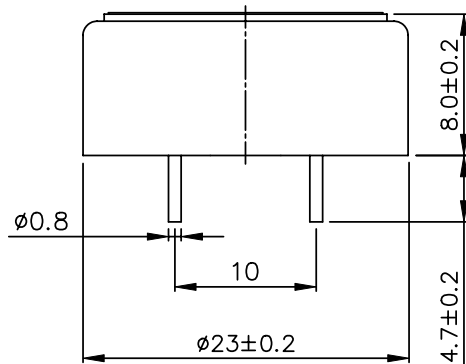
- NOTE:
 1.加工要求:
 2.表面處理:
 3.制程重點:
 4.檢驗重點:

不准使用鎳利
 電子禁止使用的
 環境管理物質

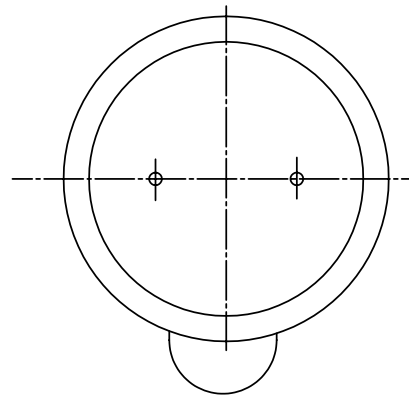
貼紙
 銅板紙+不干膠



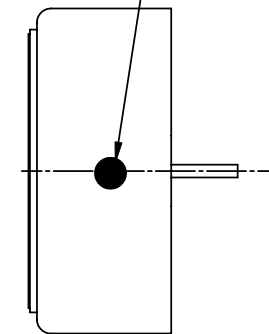
外框材質:PBT



RECOMMENDATION
 FOR PCB LAYOUT



打點處標示正極



An outside oscillation or driving circuit is needed

RANGE	TOL	✓			
0-8	±0.05	±0.1	±0.15	±0.2	±1
8-16	±0.1	±0.15	±0.2	±0.2	±2
16-24	±0.15	±0.2	±0.3	±0.3	±2
24-50	±0.2	±0.25	±0.3	±0.4	±3
50-100	±0.25	±0.3	±0.5	±0.5	±3
>100	±0.3	±0.4	±0.4	±0.8	±5

Ⓚ CRITICAL DIMENSIONS ENVIRONMENT REQUIREMENT: HF

COSTOMER PN: VECO PN:

DATE: 2020/03/31

MATERIAL:

COLOUR:

ITEM	Y/M/D	CONTENTS OF CHANGE	SPONSOR

Vanson Electronics (Nanhai) Co., Ltd.

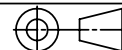
鎳利電子 E-MAIL: fsvcco@veco.com.cn
 TEL:+86-757-81266388 FAX:+86-757-81266389

Title: PCB-08-8-D

Unit: mm

VER: 00

Appr.:



Scale: 1:1

CHK.:

Dwg.: 王麗紅