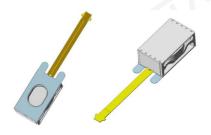


**Dynamic Exciter** 

Product No. 139795

BHS1324-11-08H8.5

Issue No. BS/TES01.1980



#### Features:

- External driving circuit
- With plug
- Screen vibration
- RoHS

Drawn by	Checked by	Approved by	Customer approved
Fay.Chen	Hansen.Tao	Richard.Cheng	SEFERENCE

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#### 1.Characteristics

## 1.1 Technical Terms

1. Resistance 8.0Ω±25%@20℃

2. Rated voltage
3. Operating voltage
4. Resonance Frequency
2.83Vrms
0.3~3.0Vrms
210 ±20%Hz

5.Acceleration ≥2.3Grms@100g load in middle,2.83Vrms

6. \*Noise ≤ 50dB

7. Polarity Positive voltage to (+), U-Yoke moves forward

7. \*\*RT(Rise Time)  $0\rightarrow90\%$   $\leq 60$ ms 8. \*\*BT(Break Time)  $100\%\rightarrow10\%$   $\leq 60$ ms 9.Weight  $\approx 5.2$ g

#### 1.2 Environmental Conditions

1. Standard conditions for inspection and measurement:

(1) Temperature: +15...+35°C

(2) Humidity: 45...85%RH (no condensation of moisture)

When a judgment under standard conditions raises doubt, the following conditions apply:

(1) Temperature: +18...+22°C

(2) Humidity: 50...60%RH (no condensation of moisture)

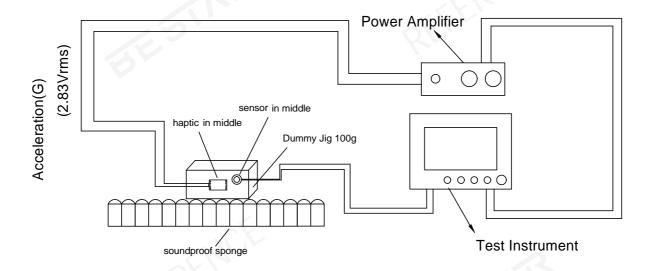
2. Operating Temperature: -40...+85℃
3. Storage Temperature: -40...+95℃



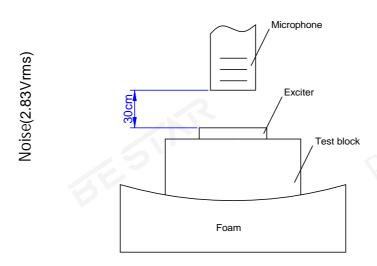
<sup>\*@ 200</sup>g load in middle,2.83Vrms,210Hz,30cm

<sup>\*\*@100</sup>g load in middle,2.83Vrms,210Hz

## 1.3 Haptic actuator Measurement Circuit



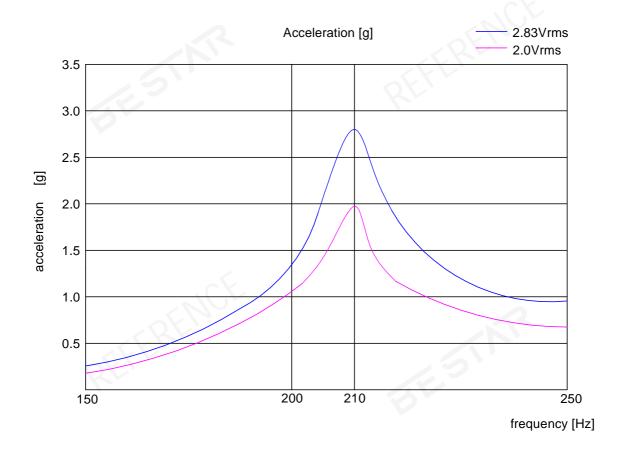
## 1.4 Noise Test Descriptions Back groud noise 28dB(MAX)



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# Many Massacol Myrody Margh

## 1.5 Acceleration Characteristics

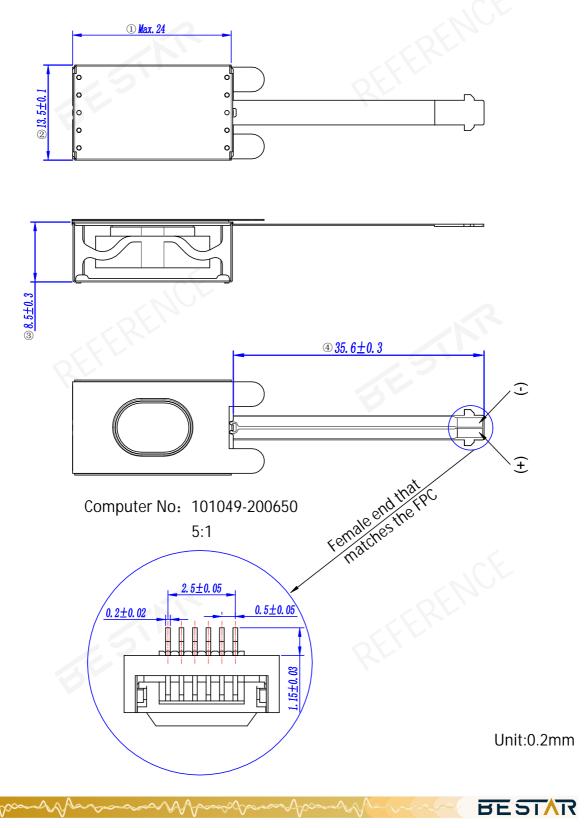


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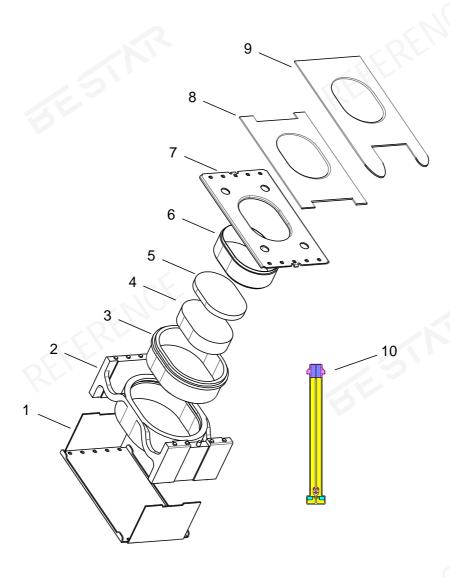


## 2. Drawing

## 2.1 Product Dimensions



## 2.2 Part List



9.Release Liner Craf	t F	Paper
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8.Double glue 3M

7.Base Plate SUS

6. Voice Coil Kapton+SV

5. UP Plate SPCC

4. Magnet3. U-YOKENdFeBSPCC

2. Frame Plastic

1.Housing SUS





## 3. Reliability Test

3.1 Load test

Power (Nom) 2.83Vrms,30ms ON/470ms OFF

Input signal 210Hz sine wave

Duration 1000hrs

3.2 Drop test

Height 1m

(fix onto the 200G, 6000 series aluminum alloy carrier and drop on the 10mm thickness

woodenboard)

Direction Once in each of the three directions

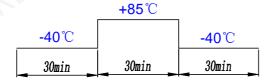
#### 4. Environment Performance Test

4.1 High temperature storage test

Temperature  $+95\pm2^{\circ}$ C Duration 1000hrs

4.2 Thermal shock test

Temperature -40~+85°C Duration 1000hrs



4.3 Damp Heat

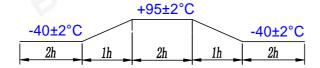
Temperature +85± 2°C Relative Humidity 85± 2%RH Duration 1000hrs

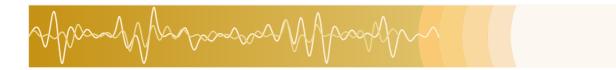
4.4 Low temperature storage test

Temperature  $-40 \pm 2^{\circ}$ C Duration 500hrs

4.5 Temperature cycles Test

Cycles 80





#### Performance requirements after test:

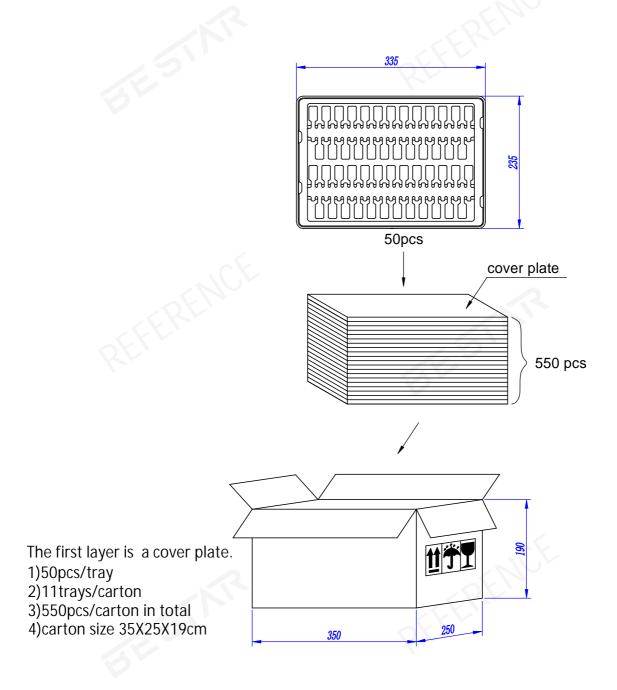
1)Acceleration: ≥2.1G@100g load in middle,2.83Vrms

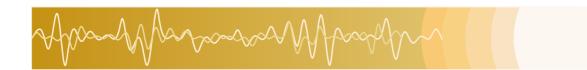
2)RT(Rise Time): <72ms@100g load in middle,2.83Vrms,210HZ 3)BT(Break Time): <72ms@100g load in middle,2.83Vrms,210HZ

4)Noise: ≤60dB@ 200g load in middle,2.83Vrms,210Hz,30cm

Notice:Before the experiment, it should work normally for 1 hour; after the experiment, it should be placed at room temperature for at least 4 hours to test its performance.

## 5. Packaging





## 6. History Change Record

Version	Change Items	Date	Drawn	Checked	Approved
AO	First Edition	2021.06.06	Leo.Chen	Hansen.Tao	Alisa.Xu
A1	≥2.3Grms@100g load in middle,2.83Vrms	2021.12.20	Fay.Chen	Hansen.Tao	Richard.Cheng

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## 7. Important Notice

- 7.1 The products mustn't be washed
- 7.2 Store Condition (packaging)

The products should be stored in the room ,where the temperature/humidity is stable. And avoid such places where there are large temperature changes. Please store the products at the following conditions:

Temperature: -10 to + 40℃ Humidity: 15 to 85% R.H.

7.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after deliveried under the conditions of a sealed and an unopened package. Please use the products within six months after deliveried.

If you store the products for a long time (more than six months), use carefully because the products may be degraded in the solderability and/or rusty. Please confirm solderability and characteristics for the products regularly.

- 7.4 Notice on Product Storage
- (1) Please do not store the products in a chemical atmosphere (Acids, Alkali, Bases, Organic gas, Sulfides and so on), because the characteristics may be reduced at quality, and/or be degraded in the solderability due to the storage in a chemical atmosphere.
- (2) Please use the products immediately after the package is opened, because the characteristics may be reduced at quality, and/or be degraded in the solderability due to storage under the poor condition.
- 7.5 Rated and Max input voltage

Rated input voltage

Rated input voltage is the maximum (limit) value which can be input to the component intentionally. If the actual input voltage to component keeps exceeding Rated Input voltage, it will damage the component acoustic performances and reliability. In the worst case, the component will get broken and no sound.

Max input voltage

Max input voltage is the maximum (limit) value for unexpected input voltage which is caused in the customer's circuit like surge voltage. If the actual input voltage to component keeps exceeding Maximum input voltage, it will break the component and cause no sound in a short time. Please note that component will have a risk to get broken if the unexpected input voltage continues.

The value of input voltage is set based on the sinusoidal voltage in the normal speaker use. If the special signal is input to component, the values of Rated and Max input voltage will be different. Please make a well-investigation at your laboratory in the case of the special signal input.



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