



SPECIFICATION FOR DYNAMIC SPEAKER

TOTAL PAGE

8

www.bestargroups.com

Characteristics of Dynamic Speaker

Customer		Model Name	SMS1313-08H04 LF
Customer P/N		Product No.	138702
Date	09 June.15	Issue No.	BS/TES01.628D
Page	01 of 08	Issue Date	06/09/12

Approval:

- 1.Characteristics
- 2.Drawing
- 3.Reliability test
- 4.Reflow condition
- 5.Tape on reel packing
- 6.MSL rating and notice
- 7.History change record

Drawn by	Checked by	Approved by	Customer approved

BESTAR HOLDING CO.,LTD

No.199 HuangHe West Road,New district,ChangZhou,JiangSu Province,P.R.China

Tel: +86 519 88222567 **Fax:** +86 519 88222551

E-mail:wu@be-star.com **<http://www.bestargroups.com>**

SMS1313-08H04 LF

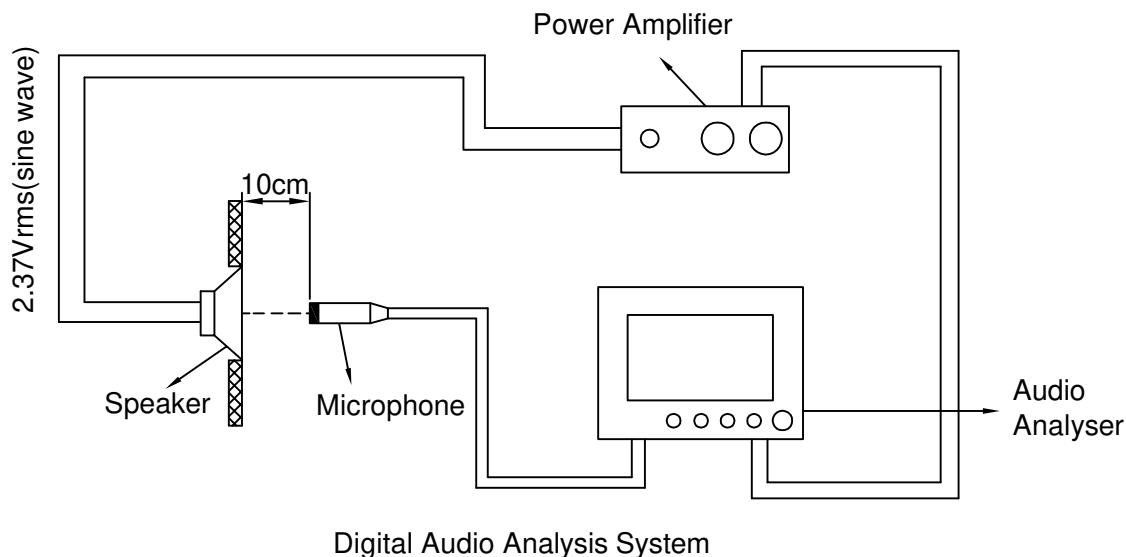


1. Characteristics

1.1 Electrical and Mechanical Characteristics

No.	Item	Specifications
1.	Dimensions	Please refer to profile drawing
2.	AC Impedance	8±20% ohm at 2KHz
3.	Resonance Frequency	1000±20%Hz
4.	Nominal Input	0.7W(2 . 37Vrms)
5.	Max. Input	1W(2.83Vrms)
6.	Sound Pressure Level	88±3dB/0.7W/10cm at 1k,1.6k,2k,3.2kHz average
7.	Buzzes&Rattles	Must be normal at sine wave 2.37Vrms
8.	Total Harmonics Distortion	Max.5%
9.	Frequency Response	Refer to the attached figure
10.	Operating Temperature	-40~+85°C
11.	Storage Temperature	-40~+105°C
12.	Weight	~1.4g

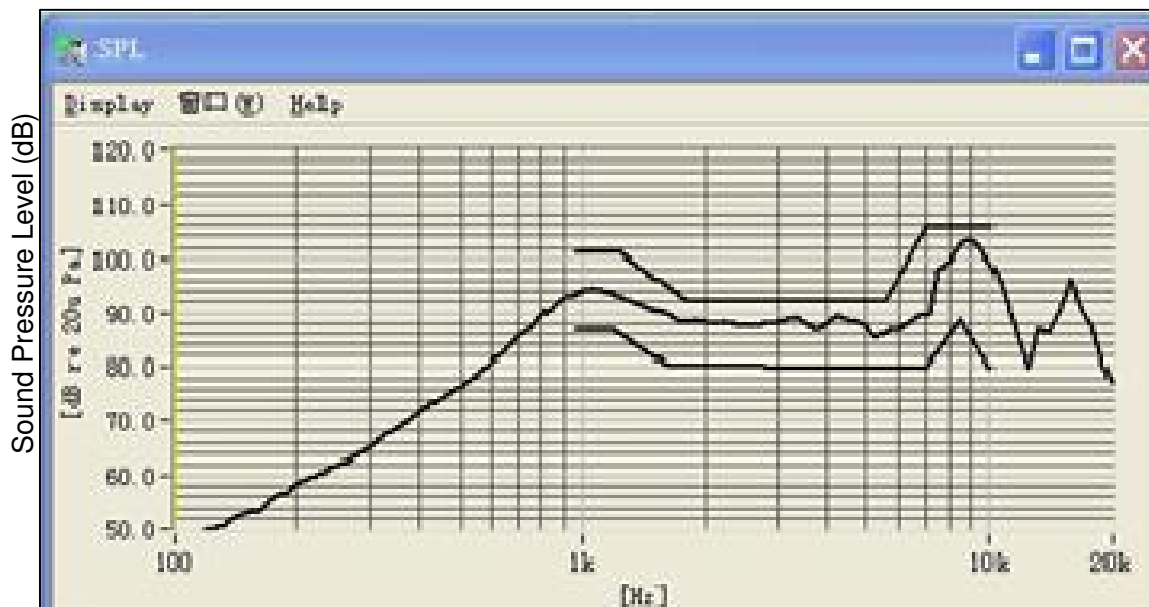
1.2 Test Method



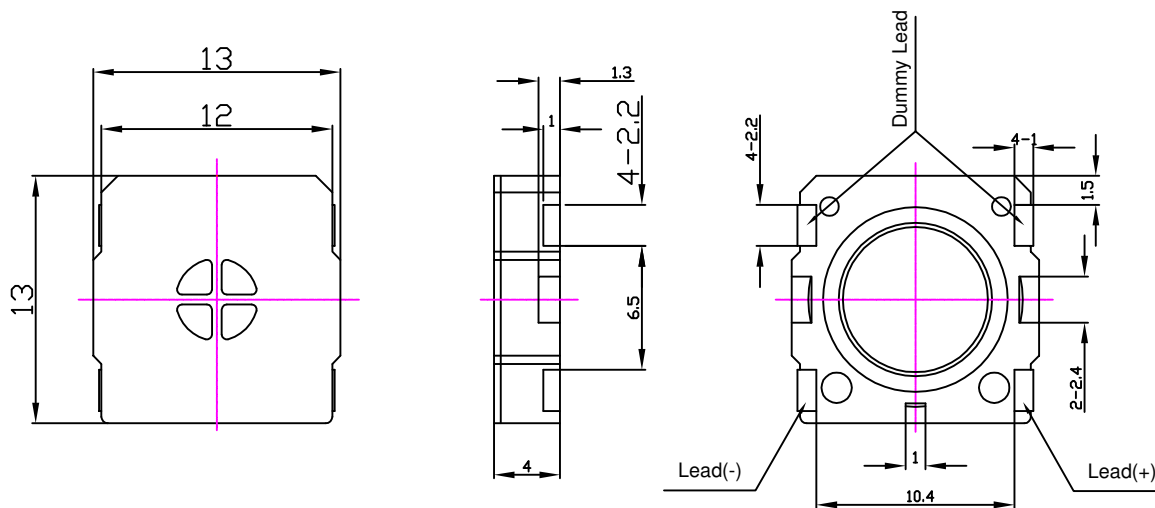
D	15/06/09	周颖					
C	09/08/10	张小红		Date:	15/06/09	SMS1313-08H04 LF	
B	09/03/13	王文邦		Drawn by:	周颖		
A	06/09/12	王文邦		Checked by:	王平	Speaker	
REV.	Date	Drawn	Note	Approved by:	徐金国		
BESTAR HOLDING CO.,LTD				www.bestargroups.com wu@be-star.com		DRG NO:BS/TES01.628D	Page:02of 08

SMS1313-08H04 LF

1.3 Frequency response



2 .Drawing



Unit:mm
tolerance:±0.2

D	15/06/09	周颖					
C	09/08/10	张小红		Date:	15/06/09	SMS1313-08H04 LF	
B	09/03/13	王文邦		Drawn by:	周颖		
A	06/09/12	王文邦		Checked by:	王平	Speaker	
REV.	Date	Drawn	Note	Approved by:	徐金国		
BESTAR HOLDING CO.,LTD				www.bestargroups.com wu@be-star.com		DRG NO:BS/TES01.628D	Page:03 of 08

This print and information there in are proprietary to BeStar Holding Co., Ltd. and shall not be used in whole or in part without its written content.

SMS1313-08H04 LF

3. Reliability test

- 3.1 Low Temperature Test
 - Temperature -40°C
 - Duration 240hrs
- 3.2 High Temperature Test
 - Temperature +105 ±2°C
 - Duration 240hrs
- 3.3 Damp Heat
 - Temperature 40 ±2°C
 - Relative Humidity 90%-95%RH
 - Duration 240hrs
- 3.4 Room temperature life test
 - Temperature 15~35°C
 - Relative Humidity 25%-85%RH
 - Voltage 2Vrms
 - Duration 240hrs
- 3.5 Temperature Cycle
 - Temperature -20°C / +40°C
 - Temperature Change 1± 2 /min
 - Duration at +65°C 2h(each cycle)
 - Duration at -25°C 2h(each cycle)
 - Duration for one cycle 8h
 - Cycles 10

All these tests above should be measured after leaving normal temperature for 2hrs.

- 3.6 Drop Test
 - Height 1m(on the concrete floor)
 - Direction of drop 1 each corner,3 each sides, 6 plain

Notice:

- 1. sensitivity difference at 1kHz shall be within ± 3dB from initial value after test.

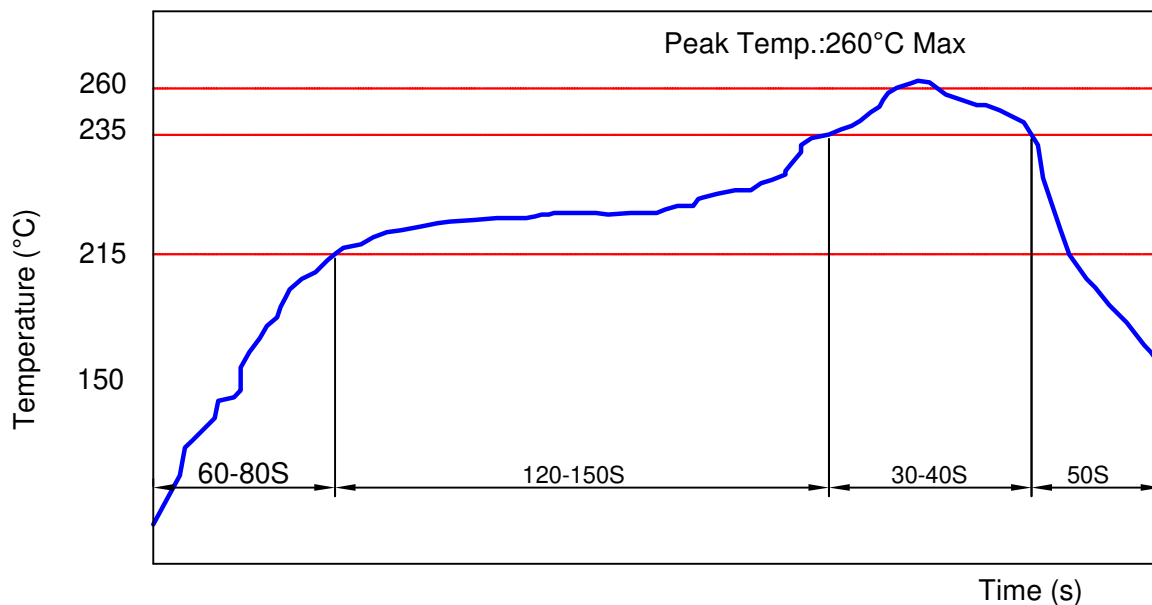
This print and information there in are proprietary to BeStar Holding Co., Ltd. and shall not be used in whole or in part without its written content

D	15/06/09	周颖					
C	09/08/10	张小红		Date:	15/06/09	SMS1313-08H04 LF	
B	09/03/13	王文邦		Drawn by:	周颖		
A	06/09/12	王文邦		Checked by:	王平	Speaker	
REV.	Date	Drawn	Note	Approved by:	徐金国		
BESTAR HOLDING CO.,LTD					www.bestargroups.com wu@be-star.com	DRG NO:BS/TES01.628D	Page:04 of 08

SMS1313-08H04 LF

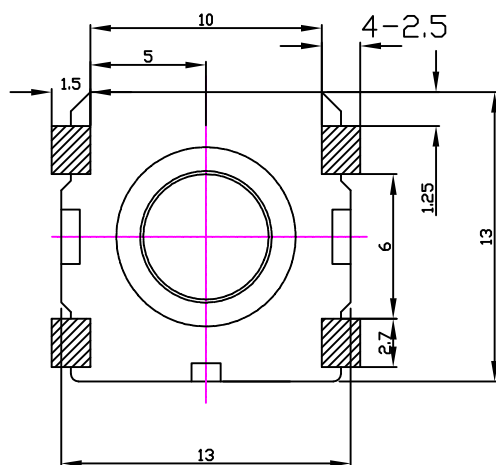
4.Reflow condition

5.1 reflow soldering



Preheating: 215°C for 120-150 seconds
 Soldering Temperature: 235°C for 30-40 seconds
 Peak Soldering Temperature: 260°C max for 10 seconds

5.2 Recommended Land Pattern Dimensions



Unit:mm

Note

- 1) Land pattern*1
- 2) Avoid any pattern on the shade area
- *2 of PC board is highly recommended

D	15/06/09	周颖					
C	09/08/10	张小红		Date:	15/06/09	SMS1313-08H04 LF	
B	09/03/13	王文邦		Drawn by:	周颖		
A	06/09/12	王文邦		Checked by:	王平	Speaker	
REV.	Date	Drawn	Note	Approved by:	徐金国		
BESTAR HOLDING CO.,LTD				www.bestargroups.com wu@be-star.com		DRG NO:BS/TES01.628D	Page:05 of 08

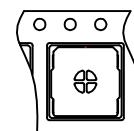
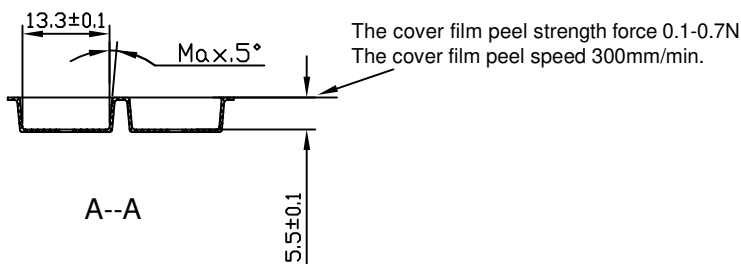
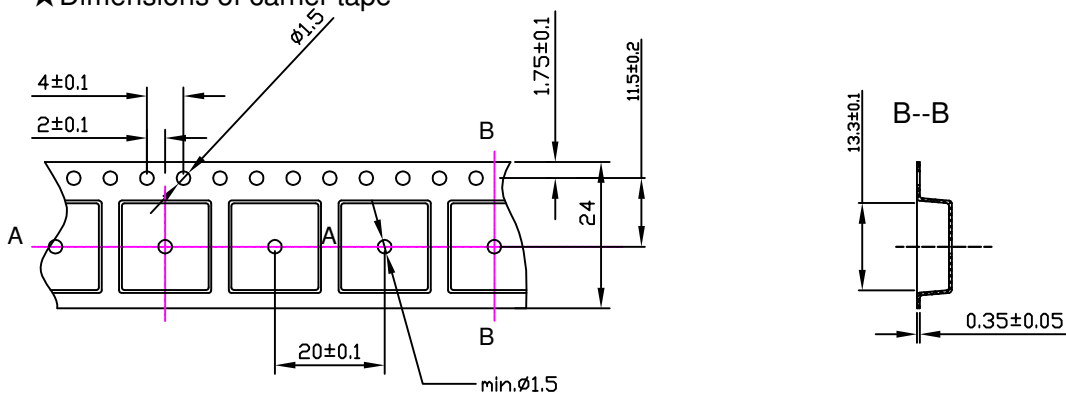
This print and information there in are proprietary to BeStar Holding Co., Ltd. and shall not be used in whole or in part without its written content

SMS1313-08H04 LF

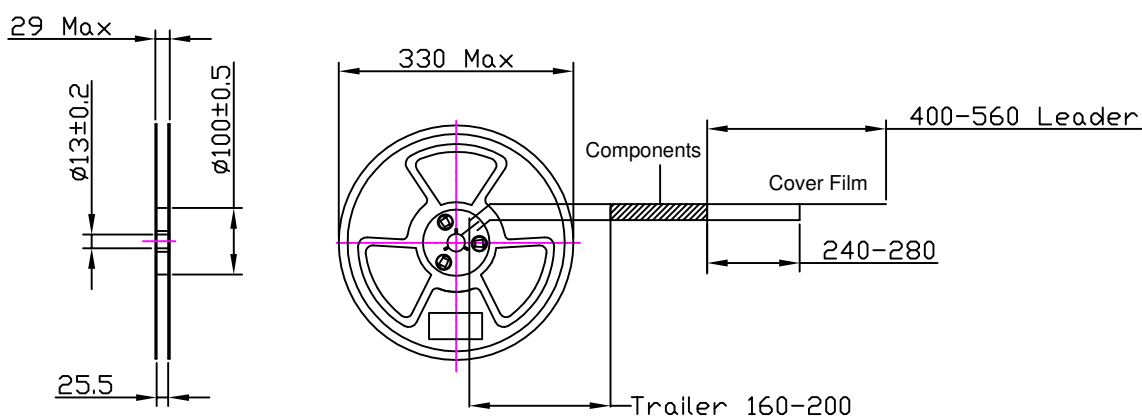
5. Tape on Reel Packing

6.1 packing drawing

★Dimensions of carrier tape



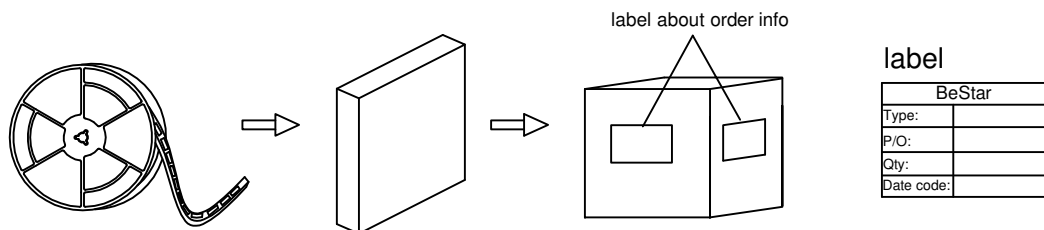
★Dimensions of reel



This print and information there in are proprietary to BeStar Holding Co., Ltd. and shall not be used in whole or in part without its written content

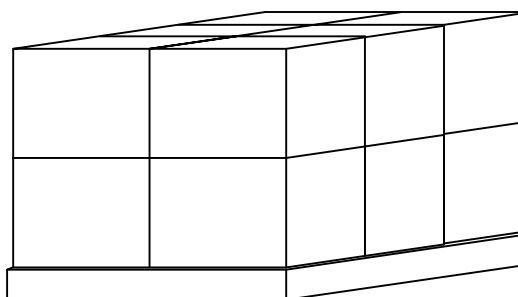
D	15/06/09	周颖					
C	09/08/10	张小红		Date:	15/06/09	SMS1313-08H04 LF	
B	09/03/13	王文邦		Drawn by:	周颖		
A	06/09/12	王文邦		Checked by:	王平	Speaker	
REV.	Date	Drawn	Note	Approved by:	徐金国		
BESTAR HOLDING CO.,LTD				www.bestargroups.com wu@be-star.com		DRG NO:BS/TES01.628D	Page:06of 08

SMS1313-08H04 LF



6.2 packing quantity

- 5.21 600pcs/reel
- 5.22 5reel/carton
- 5.23 3000 pcs/carton in total
- 5.24 carton size 38x28x37cm
- 5.25 12carton/tray
- 5.26 tray size 85x77x74cm



6.MSL rating and Notice

Moisture Sensitivity Level and Floor Life

Level	Floor Life(out of bag) at Factory Ambient $\leq 30^{\circ}\text{C}/85\% \text{RH}$ or as Stated
3	168 hours

6.1 The products mustn't be washed

6.2 Storage Condition

- (1) The products should be stored in the room, where the temperature/humidity is stable. And avoid such places where there are large temperature changes.
- (2) Please store the products at the following conditions:
Temperature: -10 to $+40^{\circ}\text{C}$ Humidity: 15 to 85% R.H.

6.3 Expire Date on Storage

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

6.4 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.
- (3) Please do not drop the products to avoid cracking of ceramic element.

D	15/06/09	周颖				
C	09/08/10	张小红		Date:	15/06/09	SMS1313-08H04 LF
B	09/03/13	王文邦		Drawn by:	周颖	
A	06/09/12	王文邦		Checked by:	王平	Speaker
REV.	Date	Drawn	Note	Approved by:	徐金国	
BESTAR HOLDING CO.,LTD				www.bestargroups.com wu@be-star.com		DRG NO:BS/TES01.628D Page:07 of 08

This print and information there in are proprietary to BeStar Holding Co., Ltd. and shall not be used in whole or in part without its written content

