



SPECIFICATION FOR DYNAMIC SPEAKER

TOTAL PAGE

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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

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SMS1313-08H04 LF

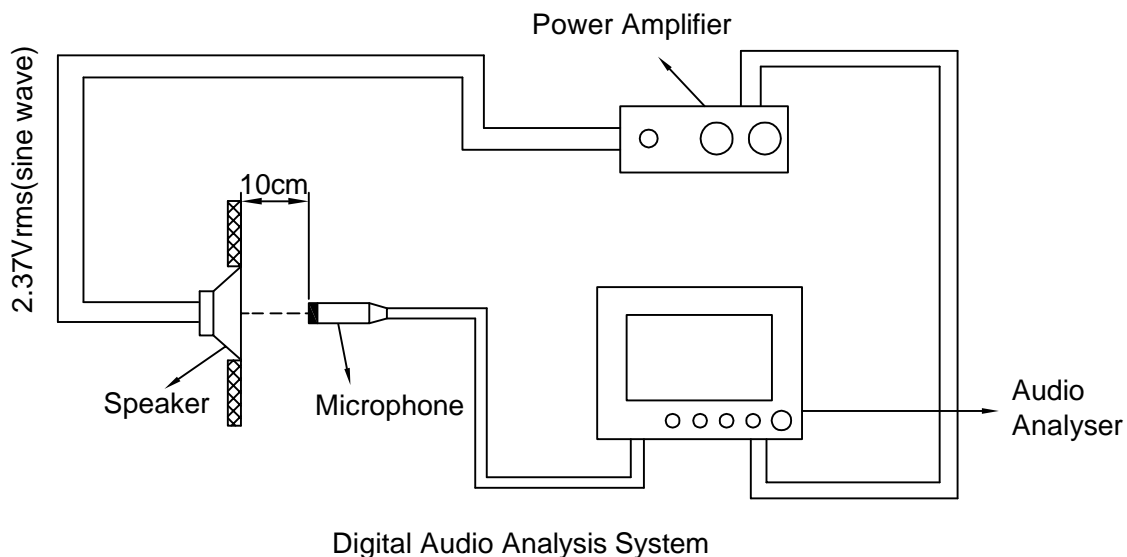


1. Characteristics

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

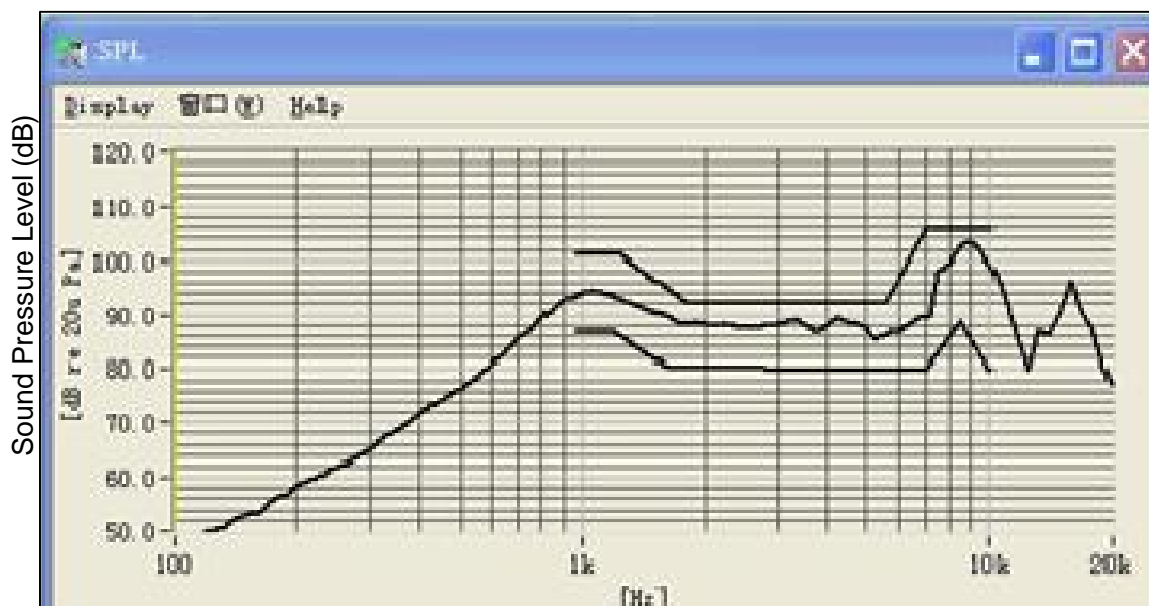
1.2 Test Method



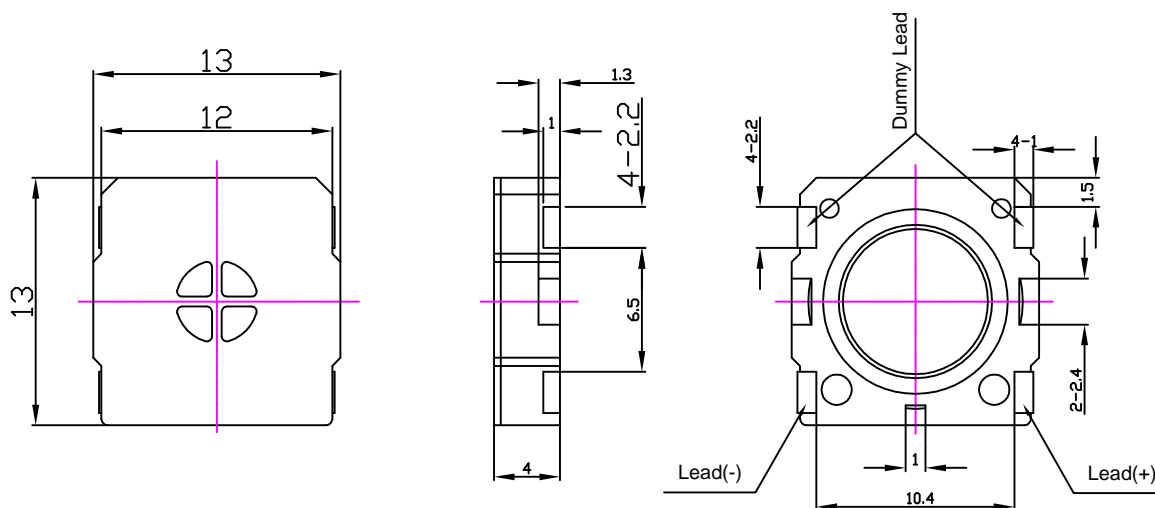
D	15/06/09	周颖					
C	09/08/10	张小红		Date:	15/06/09	SMS1313-08H04 LF	
B	09/03/13	王文邦		Drawn by:	周颖		
A	06/09/12	王文邦		Checked by:	王平	Speaker	
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1.3 Frequency response



2 .Drawing



Unit:mm
tolerance:±0.2

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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.

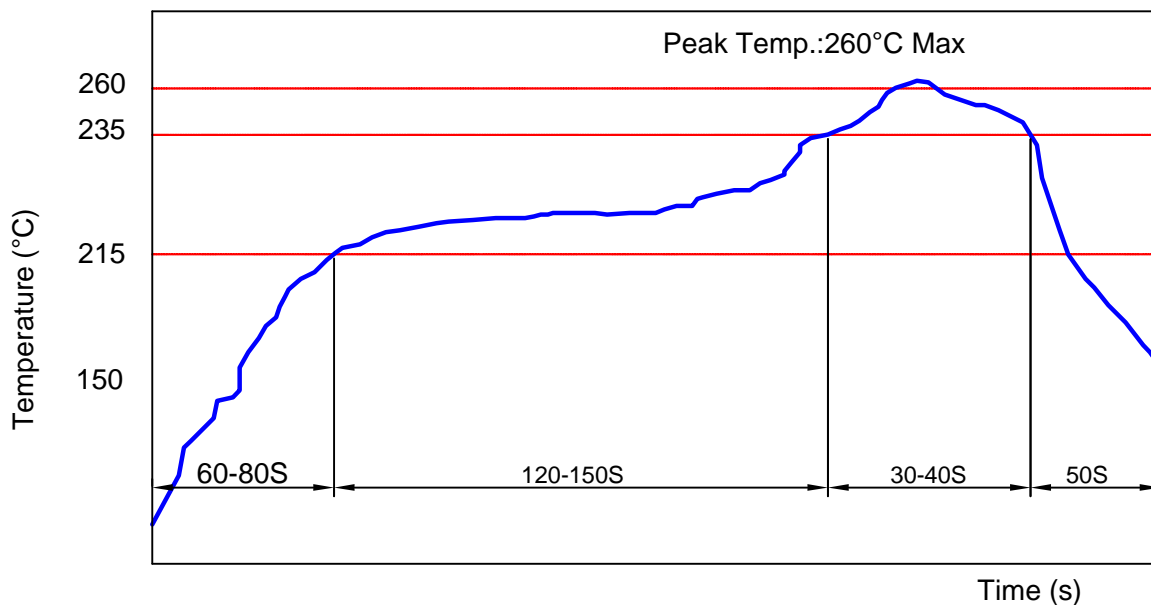
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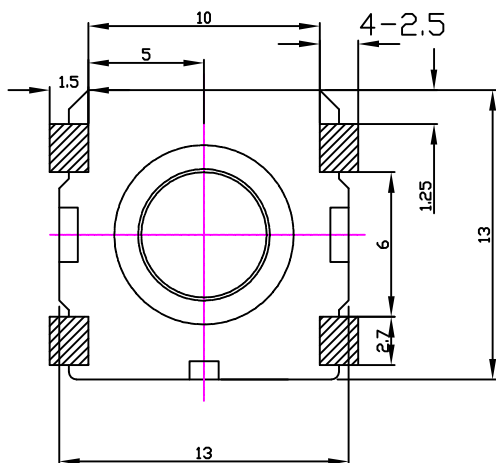
4.Reflow condition

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

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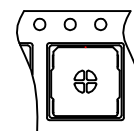
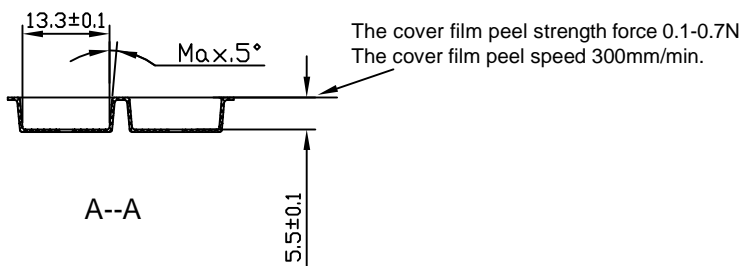
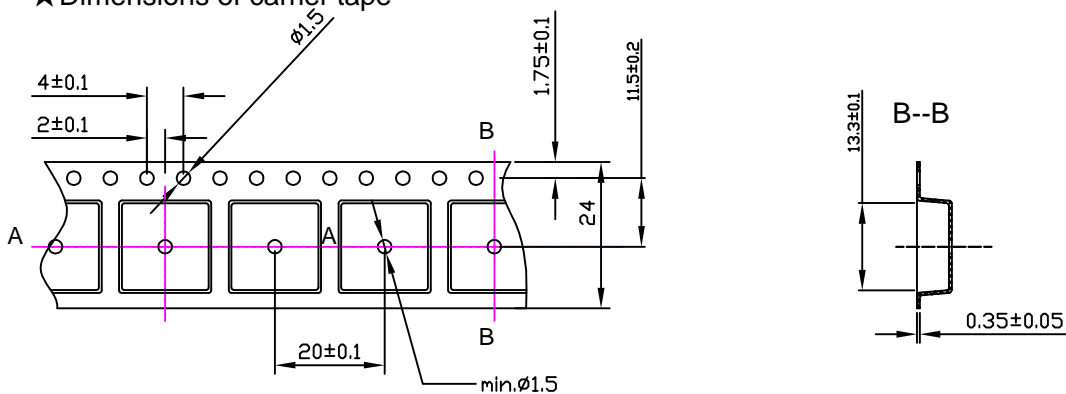
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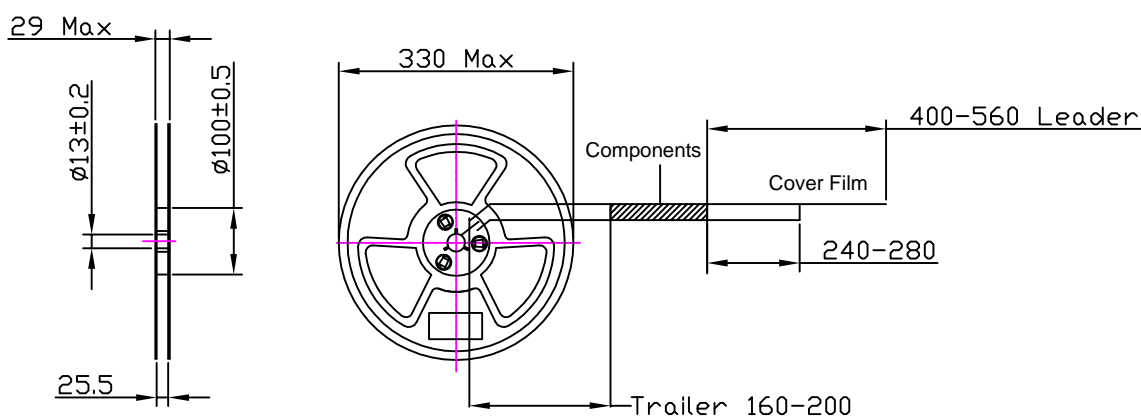
5. Tape on Reel Packing

6.1 packing drawing

★Dimensions of carrier tape



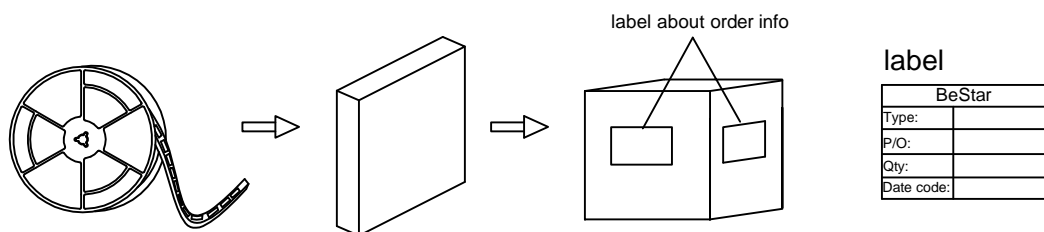
★Dimensions of reel



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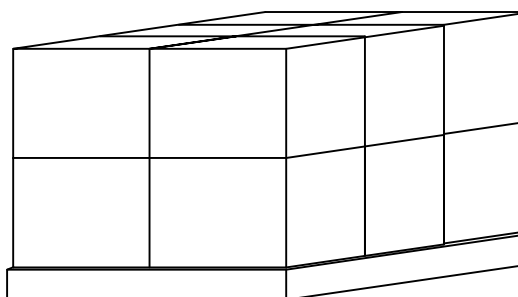
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6.2 packing quantity

- 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.

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7. History change record

version No.	Change Items		Date	Drawn	Approved
	Before	After			
A			06/08/28	王文邦	程久生
B		add dimensions	09/03/13	王文邦	程久生
C	850±20%HZ	1000±20%HZ	09/08/10	张小红	李红元
D	Operating Temperature -30~+ 85°C	Operating Temperature -40~+ 85°C	15/06/09	周颖	徐金国

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