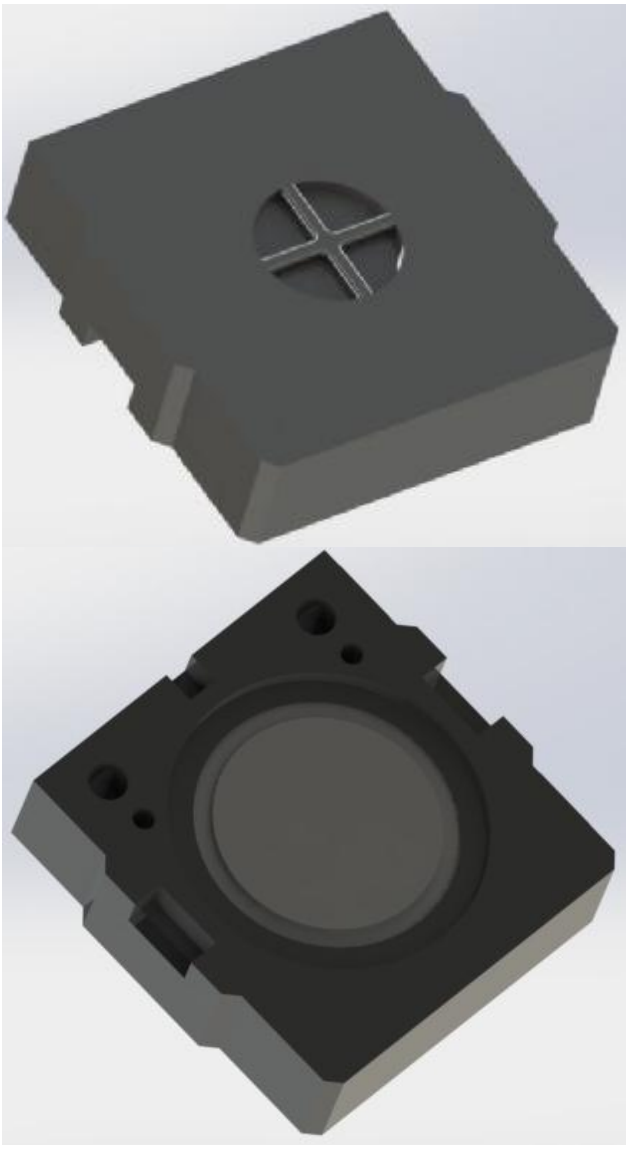
SPECIFICATION

SMS1515-08H04 LF



文件号：BS/QDTE045B

BESTAR	SPECIFICATION FOR DYNAMIC SPEAKER			
	TOTAL PAGE	08	www.be-star.com	RoHS

Customer		Model Name	SMS1515-08H04 LF
Customer P/N		Product No.	138700
Date	28 Sep.2018	Issue No.	BS/TES01.529D1
Page	01 of 09	Issue Date	2018.09.28

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
杨利平	徐 波	赵 峥	

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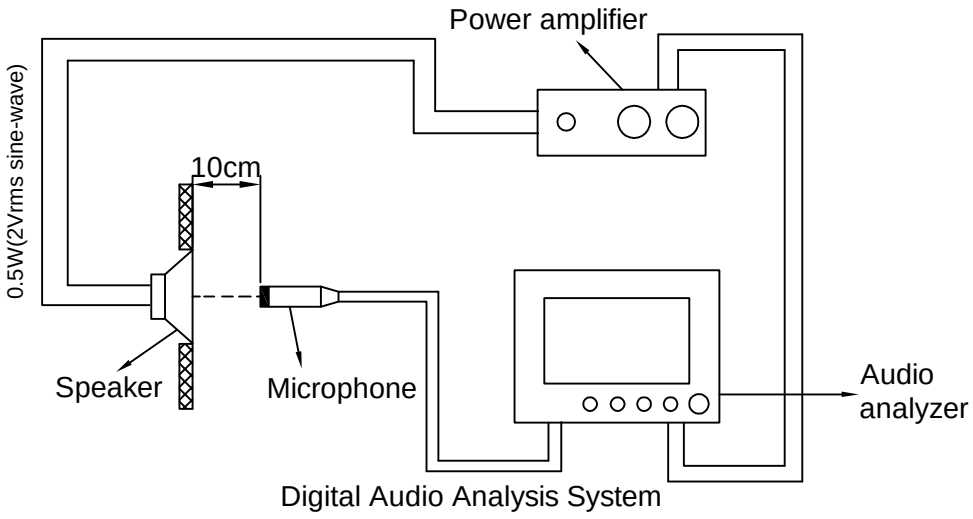
SMS1515-08H04 LF

1. Characteristics

1.1 Electrical and Mechanical Characteristics

No.	Item	Specifications
1.	Dimensions	Please refer to profile drawing
2.	AC Impedance	8 ohm±20% at 0.5Vrms/2KHz
3.	Resonance Frequency	800±15%Hz/0.5Vrms
4.	Rated Power	0.5W(2Vrms)
5.	Maximum Power	0.8W(2.53Vrms)
6.	Sound Pressure Level	87±3dB/0.5W/10cm
		at 1k,1.6k,2k,3.2kHz average
7.	Sound pressure level after reflow soldering	≥87,84,70,70,74dB/0.5W/10cm
		（at 6.3kHz,6.0kHz,5.0kHz,4.5kHz,4.0kHz）
8.	Buzzes&Rattles	Must be normal at sine wave 2Vrms
9.	Total Hamonics Distortion	Max.5%(0.5W/2.2KHz)
10.	Frequency Response	Refer to the attached figure
11.	Operating Temperature	-40~+85°C
12.	Storage Temperature	-40~+105°C
13.	Weight	~1.5g

1.2 Test Method

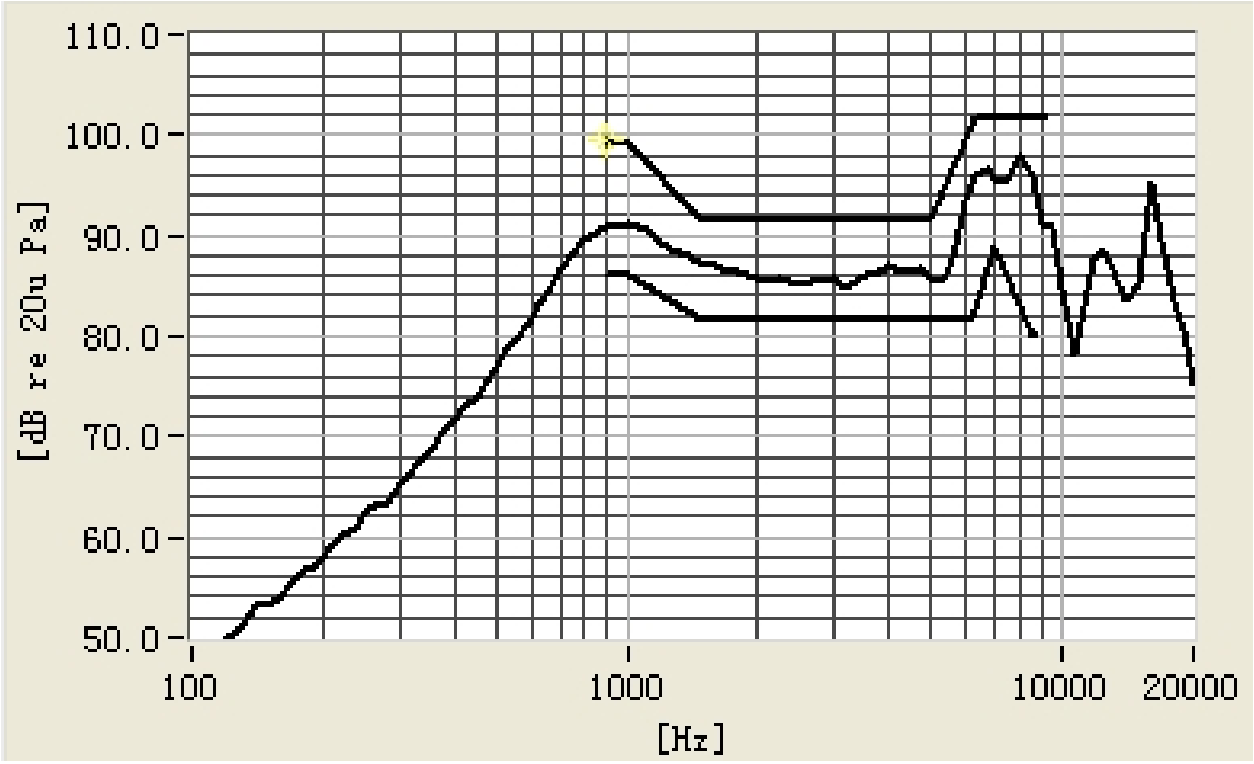


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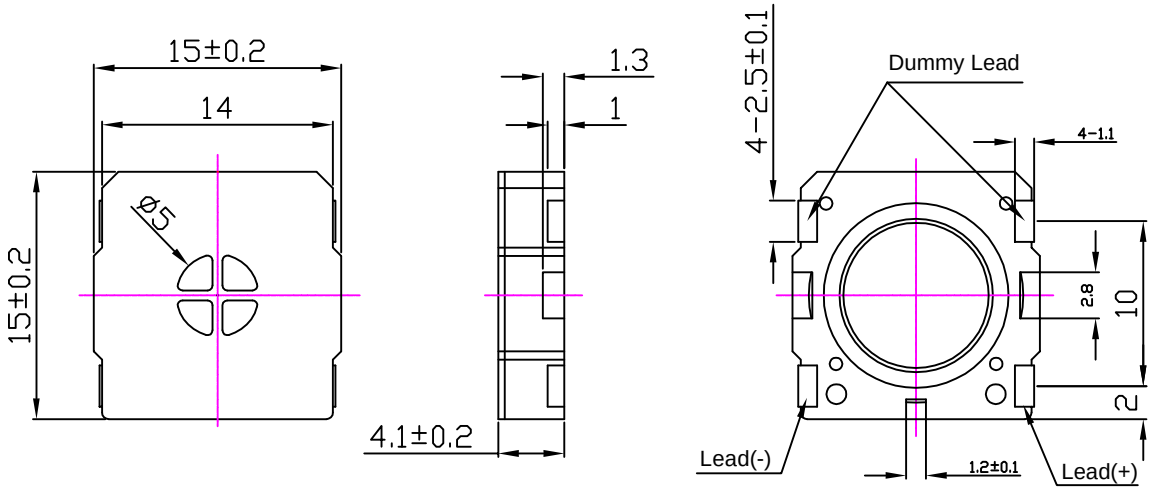
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1.3 Frequency response



Frequency

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	-25°C / +65°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

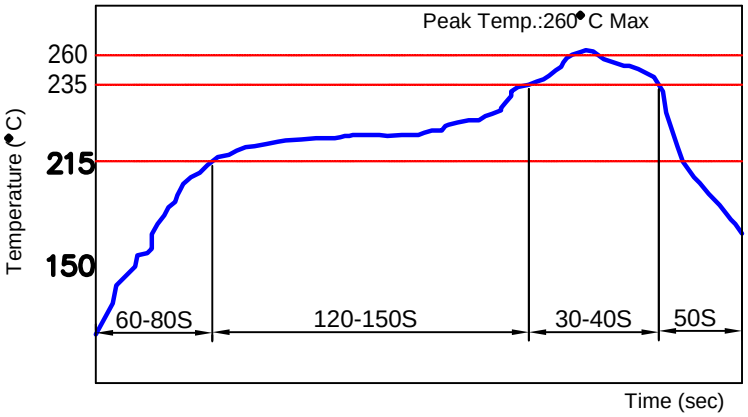
Notice:
sensitivity difference at 1kHz shall be within ± 3dB from initial value after test.

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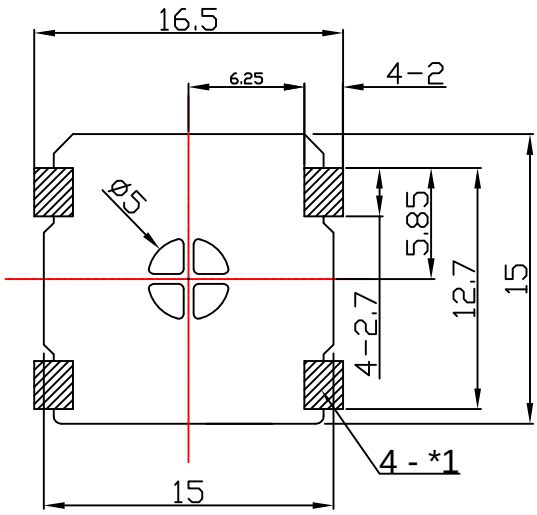
4.Reflow condition

4.1 reflow solding



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

4.2 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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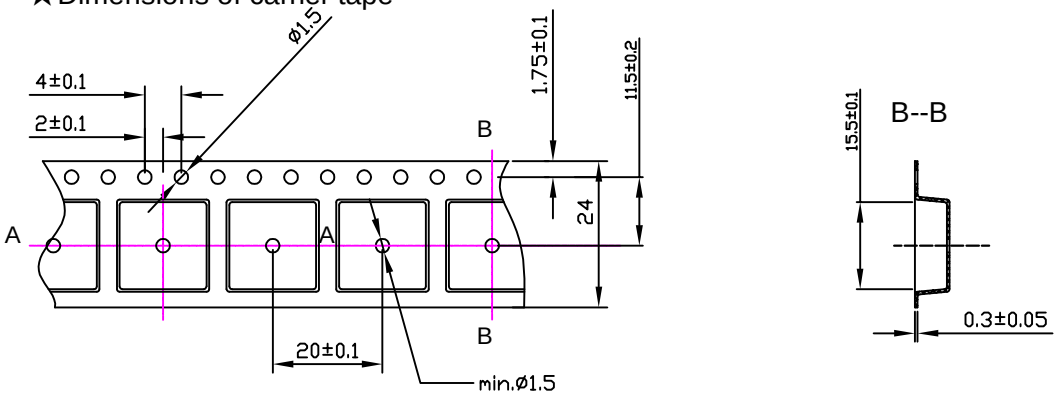
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D	2018/09/12	徐 亮		Checked by:	徐 波	Speaker
Rev.	Date	Drawn	Note	Approved by:	赵 峥	
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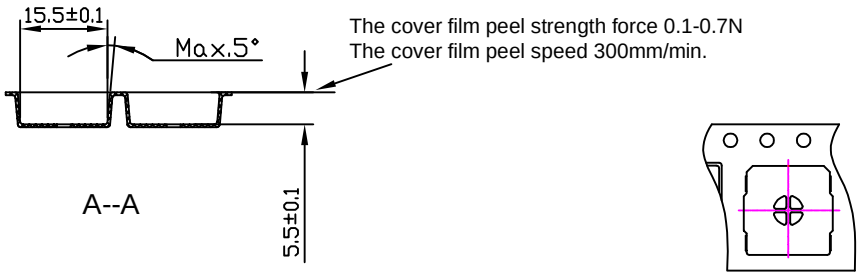
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5. Tape on Reel Packing

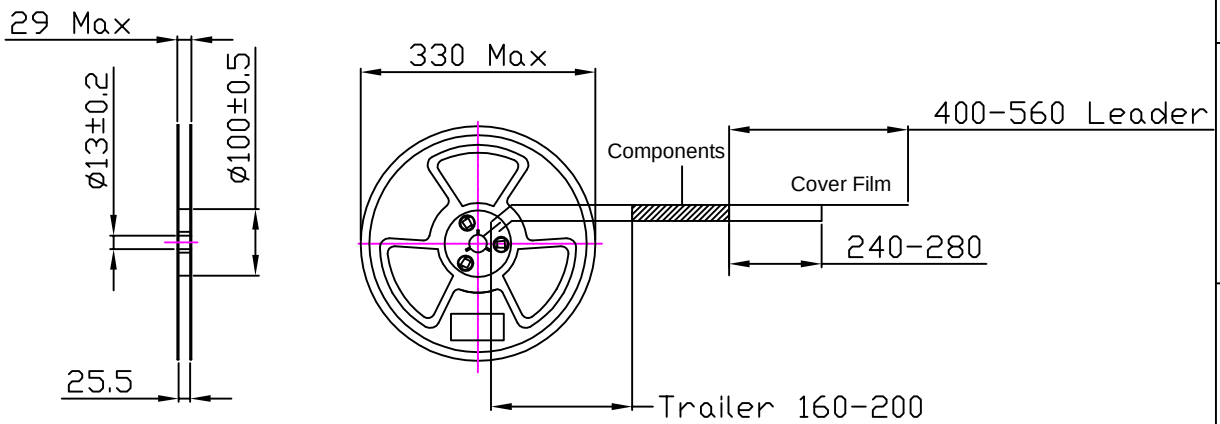
5.1 packing drawing

★Dimensions of carrier tape





★Dimensions of reel

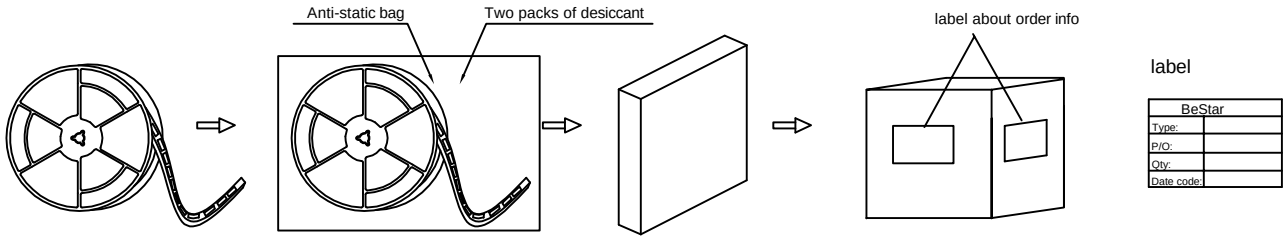


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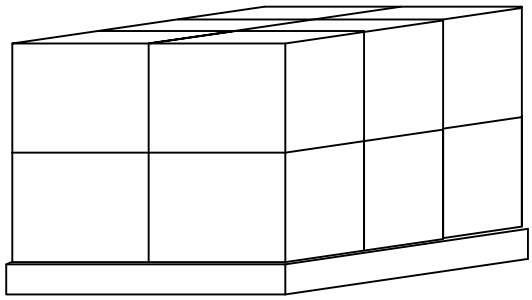
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5.2 packing quantity

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 ≤30°C/85% RH or as Stated
3	168 hours

6.1 **The products mustn't be washed**

6.2 **Storage Condition**

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°C Humidity: 15 to 85% R.H.

6.3 **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.

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			06/1/3	王文邦	程久生
B	high:4±0.2	high:4.1±0.2	2012/11/27	王文邦	张秀琴
C	Change the temperature		2015/06/09	周　颖	徐金国
D	Increase the sound pressure level after reflow soldering		2018/09/12	徐　亮	赵　峥
D1	Add packing requirements（add Anti-static bag and desiccant）		2018.09.28	杨利平	赵　峥

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