

SH 1508S B

LOUDSPEAKER

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1. SPECIFICATIONS

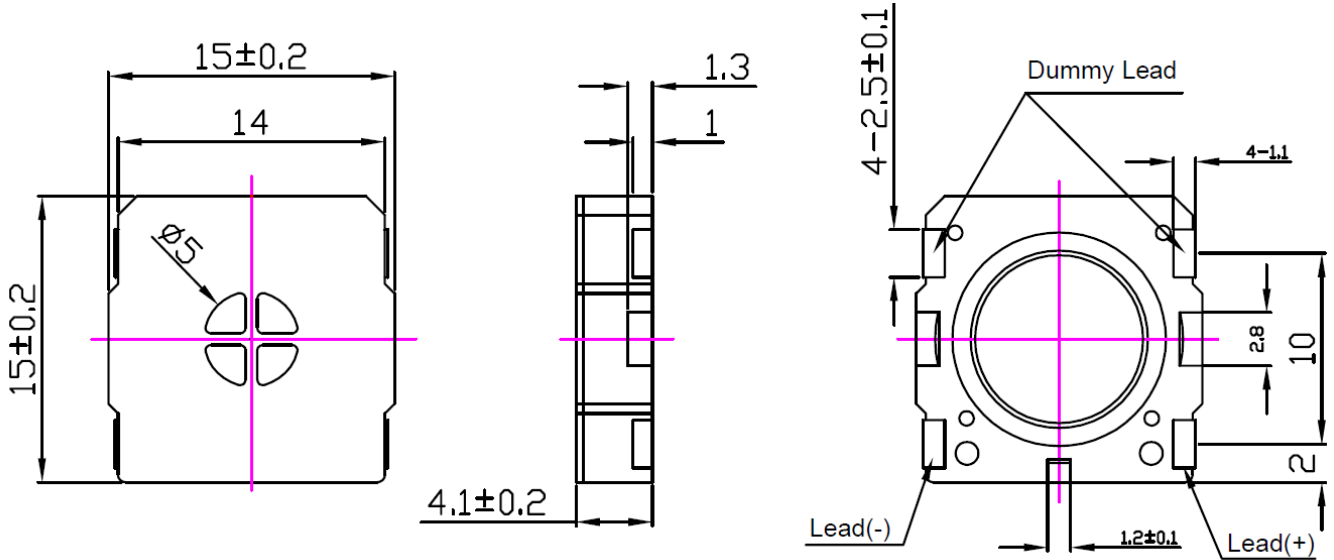
Parameter	Unit	Conditions / Description	MIN	TYP	MAX
Impedance	Ω	At 2.000Hz, 0.5Vrms	6,4	8	9,6
Input Power	W			0.5 (2Vrms)	0.8 (2.53Vrms)
Resonance Frequency	Hz	At 0.5Vrms	680	800	920
Frequency Range	Hz	See the diagram below			
SPL	dB	At 0.5W in 10 cm distance At 1.000Hz, 1.600Hz, 2.000Hz, 3.200Hz average	84	87	90
SPL after Reflow Soldering	dB	At 0.5W in 10 cm distance, 6.300Hz			87
	dB	At 0.5W in 10 cm distance, 6.000Hz		84	
	dB	At 0.5W in 10 cm distance, 5.000Hz		70	
	dB	At 0.5W in 10 cm distance, 4.500Hz		70	
	dB	At 0.5W in 10 cm distance, 4.000Hz		74	
THD	%	At 2.200Hz, 0.5W			5
Buzz & Rattle		Must be normal at sine wave 2Vrms			
Contact				SMD	
Packaging				REEL	
Operating Temperature	$^{\circ}\text{C}$		-40		+85
Storage Temperature	$^{\circ}\text{C}$		-40		+105
Weight	g			1.5	

Remark:

Tested at 6300Hz. Meets the requirement 2.000.000 times if the work power does not exceed the limit

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CHANGED BY	Rabea Richter	DATE	2019.09.03				
DRAWING NO.	435454545						

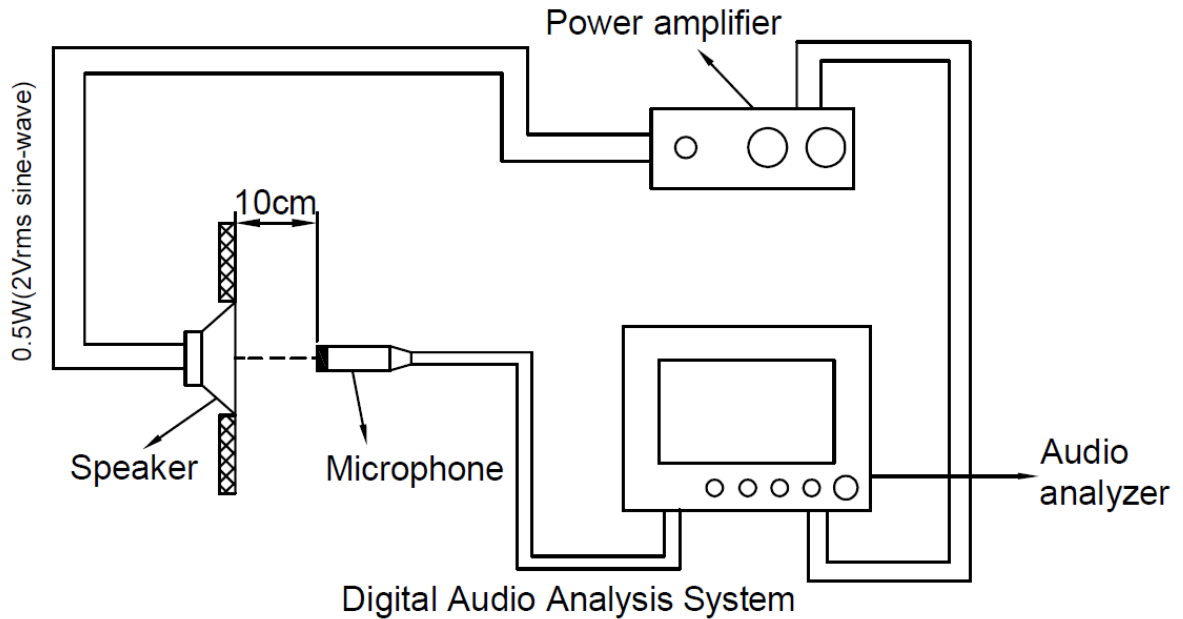
2. DRAWING



Tolerance ± 0.2 Unit: mm

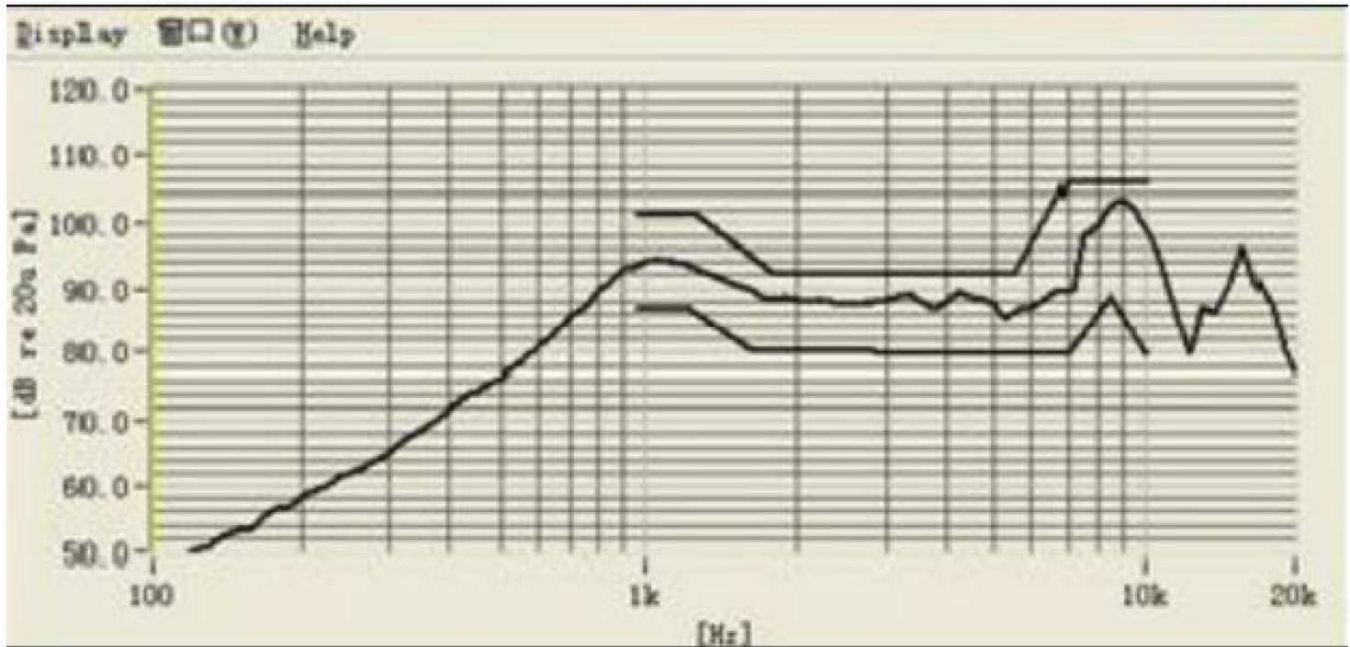
3. TEST METHOD

3.1 TEST SETUP



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3.2 FREQUENCY RESPONSE CURVE



4. RELIABILITY TEST

4.1 Low Temperature Test

Temperature -40°C
Duration 240 hours

4.2 High Temperature Test

Temperature +105 ± 2°C
Duration 240 hours

4.3 Damp Heat Test

Temperature +40 ± 2°C
Relative Humidity 90~95 % RH
Duration 240 hours

4.4 Room Temperature Life Test

Temperature +15~35°C
Relative Humidity 25~85 % RH
Voltage 2Vrms
Duration 240 hours

4.5 Temperature Cycle Test

Temperature -20°C / +40°C
Temperature Change 1 ± 2/minute
Duration at +65°C 2 hours (each cycle)
Duration at -25°C 2 hours (each cycle)
Duration one cycle 8 hours
Cycles 10

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

4.6 Drop Test

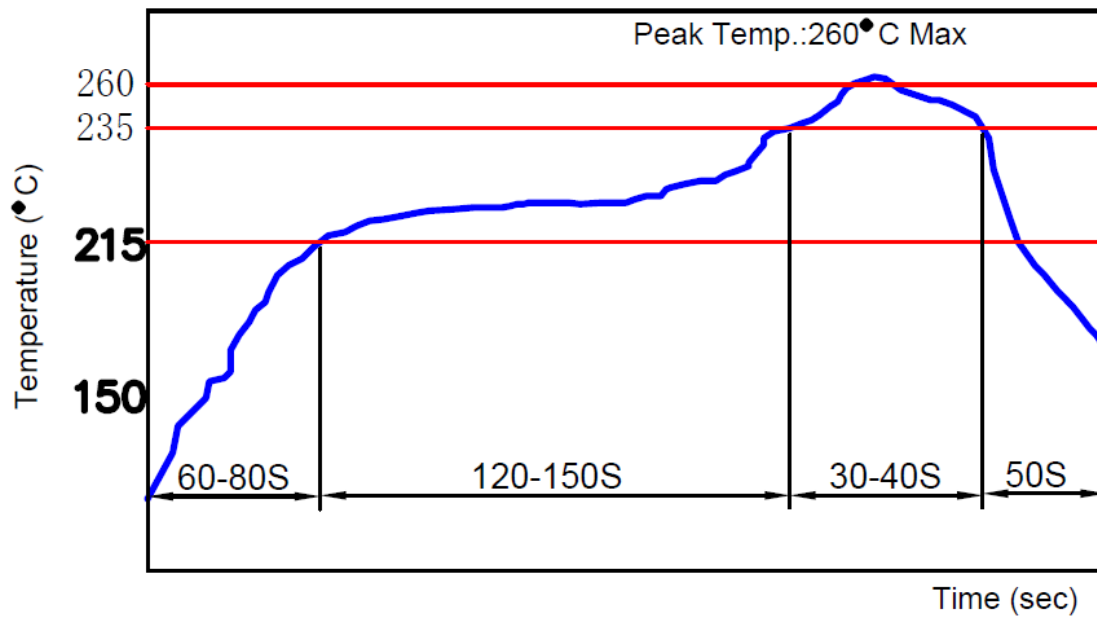
Height 1m (to concrete floor)
Direction 1 each corner, 3 each side, 6 plain

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

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5. REFLOW CONDITION

5.1 REFLOW SOLDERING

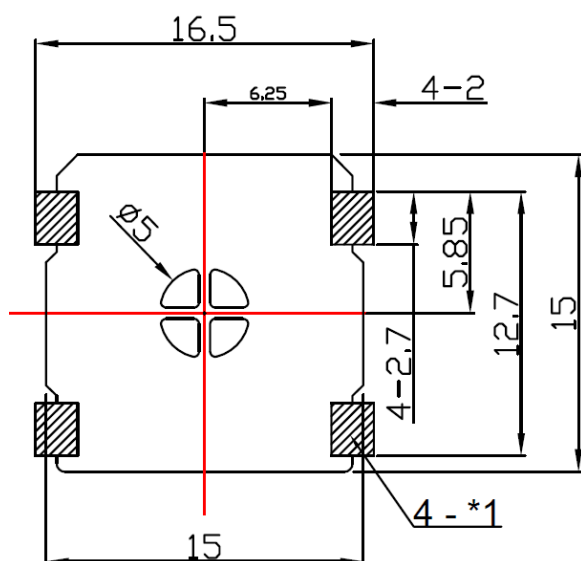


Preheating: 215°C for 120-150 seconds

Soldering Temperature: 235°C for 30-40 seconds

Peak Soldering Temperature: 260°C max for 10 seconds

5.2 RECOMMENDED LAND PATTERN DIMENSIONS



1) Land pattern*1

2) Avoid any pattern on the shade area

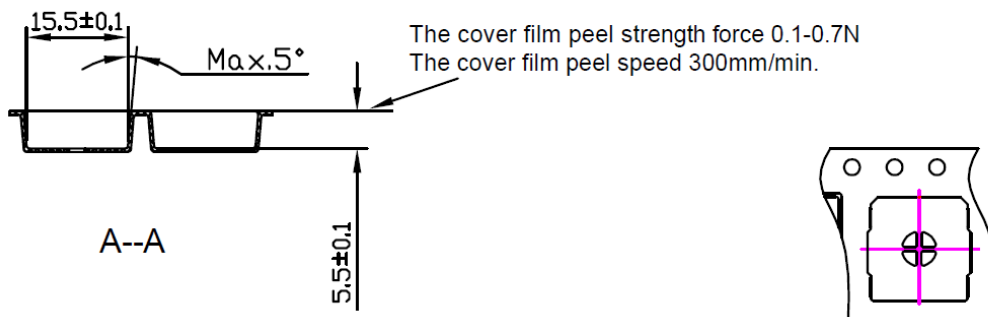
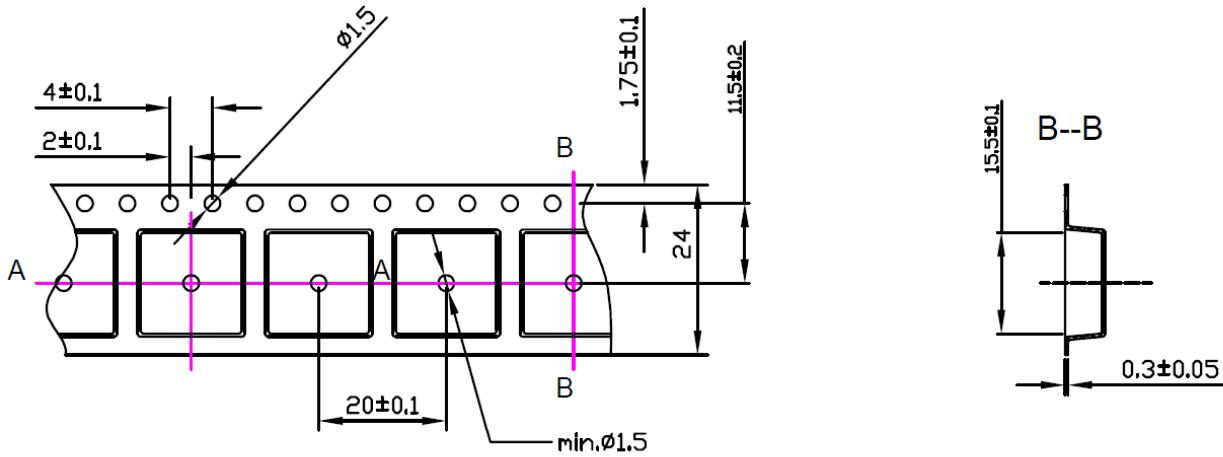
*2 of PC board is highly recommended

Unit: mm

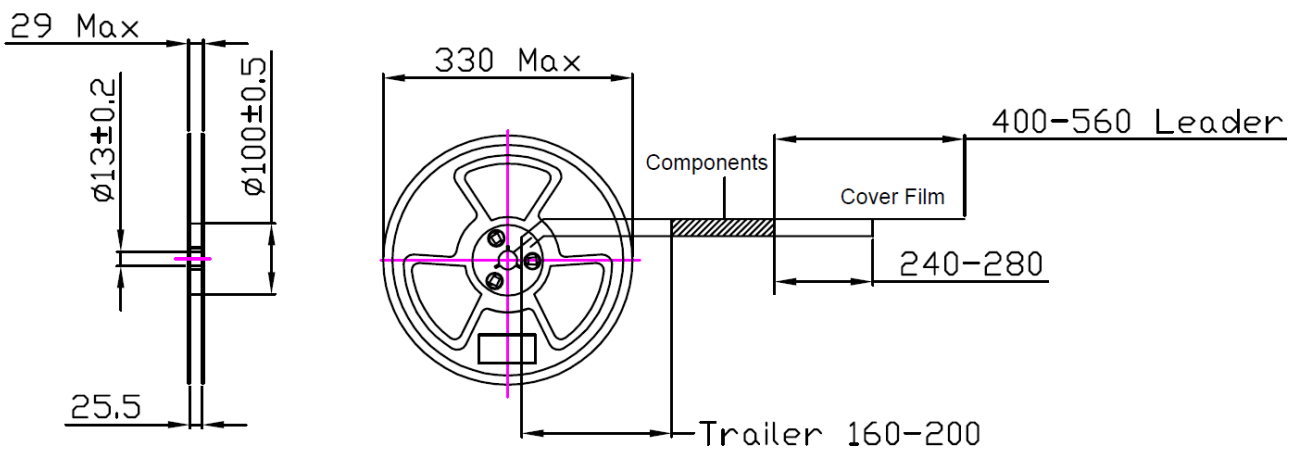
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6. TAPE ON REEL PACKING

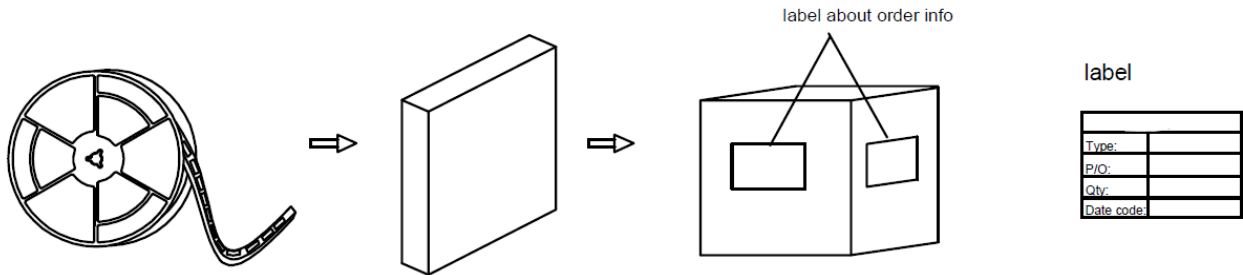
6.1 PACKING DRAWING



★Dimensions of reel

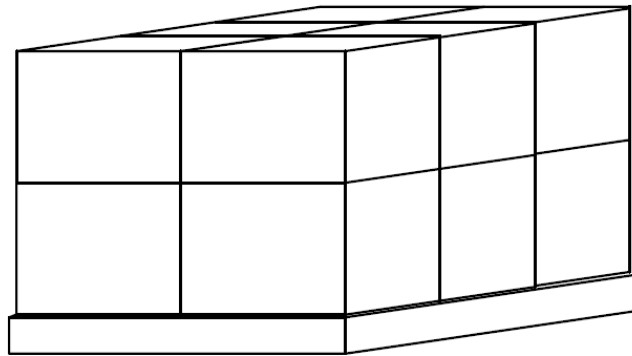


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6.2 PACKING QUANTITY

- 600 pcs per reel
- 5 reels per carton
- 3.000 pcs per carton in total
- Carton size 38x28x37cm
- 12 cartons per tray
- Tray size 85x77x74cm



7. 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

7.1 The products mustn't be washed

7.2 Storage Condition

The products should be stored in a room, where the temperature/humidity is stable. 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.

7.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after delivery under the conditions of a sealed and an unopened package. If you store the products for a long time (more than six months), use them 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 in 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 in 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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8. HISTORY CHANGE RECORD

REV	CHANGE ITEMS		DATE
	BEFORE CHANGE	AFTER CHANGE	
1	SH 1508S A	SH 1508S B	2019.03.21
2		Add requirement 2.000.000 cycle times	2019.04.10
3	Old Layout	New Layout	2019.09.03
4		Add SPL after Reflow Soldering	2019.09.03

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