

SPECIFICATION

For Electro-Magnet Transducer

Customer	
Customer P/N	
BeStar Model Name	SMT8585-03H03 LF
Product No.	050201
Issue No.	BS/TET01.048C
Issue Date	06/10/07

Approval:

- 1.Characteristics
- 2.Dimension
- 3.Reliability Test
- 4.Surface Mounting Condition
- 5.Soldering Pattern
- 6.Tape on Reel Packing
- 7.Notice
- 8.History change record

Drawn by	Checked by	Approved by	Customer approved
韩学慧	程久生	郭敏	

For conform to the European Union Directive on the Restriction of Hazardous Substances(RoHS), this type of productions forbid use all the hazardous substances as follow:

Lead
Cadmium
Mercury
Hexavalent chromium
Polybrominated biphenyls (PBB)
Polybrominated diphenyl ethers (PBDE)



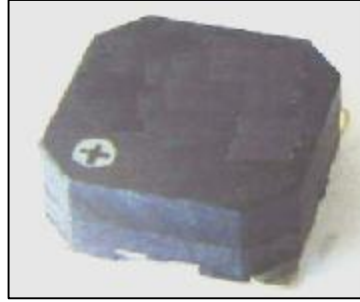
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SMT8585-03H03 LF

1. Characteristics

1.1 Features

1. SMD; thinner , smaller size
2. High S.P.L.; and clear sound
3. Reflowable; RoHS compliant
4. Tape & Reel supply
5. Minimum quantity (one reel): 1000 pcs.



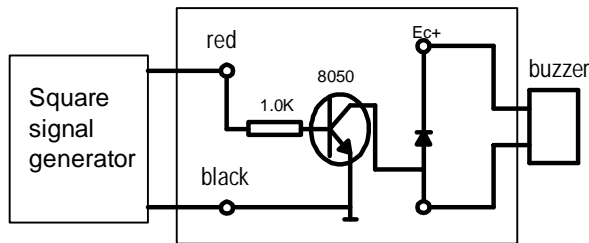
1.2 Electrical and Mechanical Characteristics

No.	Item	Specifications
1	Rated Voltage	3Vo-p
2	Operating Voltage	2...5 Vo-p
3	Current	Max.110(Typical 80)mA
4	Sound Output (at 10cm)	Min.86dB
5	Rated Frequency	2731Hz
6	Coil Resistance	16± 2.4 ohm
7	Operating Temp.	-40...+85°C
8	Storage Temp.	-40...+85°C
9	Weight	Max 0.5g
※ Current/Sound Output:value applying rated voltage		
(2731Hz,1/2 duty,square wave)		

1.3 Test method:

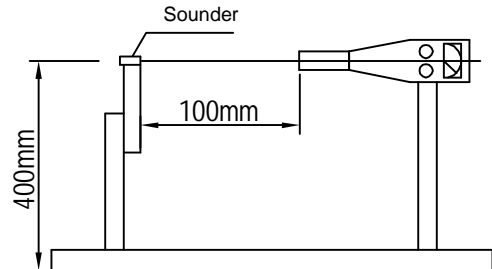
1.31.Recommended Circuit

the following are examples of externally driven circuits.



1.32.Standard test Fixture

No reaction in space with in 400mm in all direction

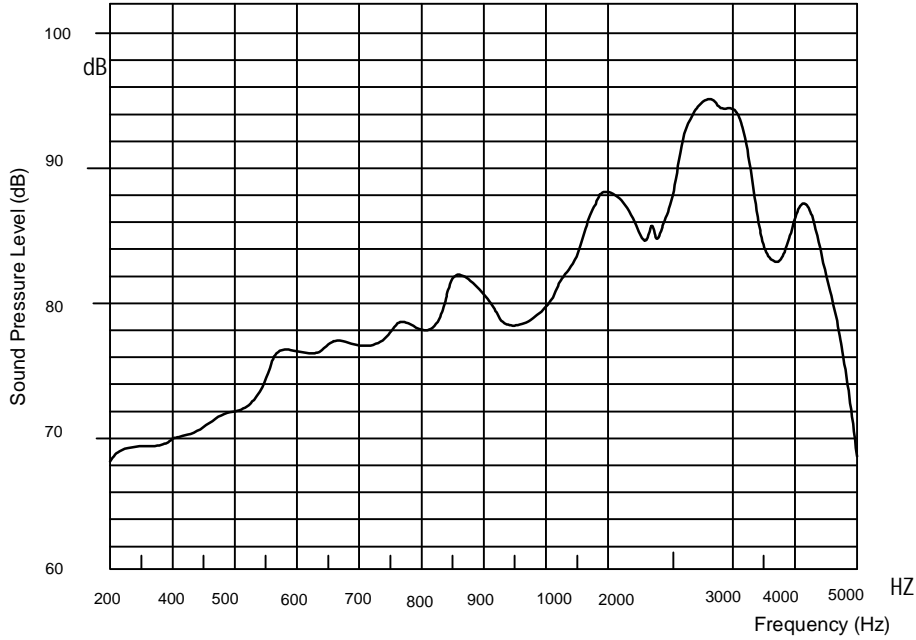


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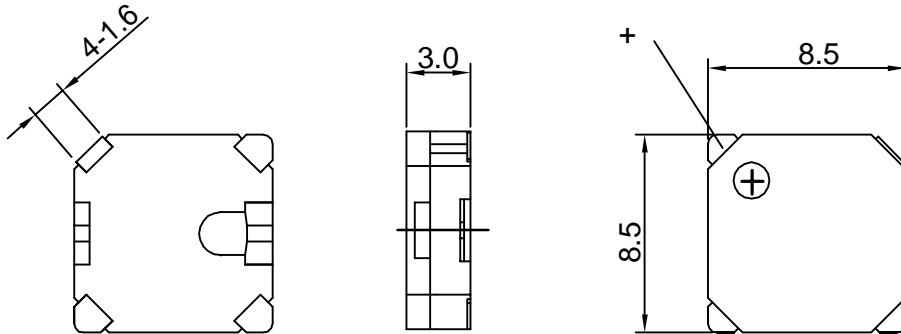
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B	06/05/07	宋文娟		Drawn by:	韩学慧		
A	02/06/03	姜丽敏		Checked by:	程久生	Transducer	
Rev.	Date	Drawn	Note	Approved by:	郭敏		
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1.4 Frequency Response(Square wave 3Vo-p 10cm)



2.Dimension



Tolerance: $\pm 0.2\text{mm}$

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3. Reliability Test

3.1 High temp. storage life test

Temperature +85°C
Duration 240hrs

3.2 Low temp. storage life test

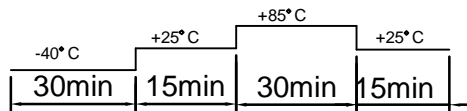
Temperature -40°C
Duration 240hrs

3.3 Life test in normal temperature

Power supply Rated voltage
Duration 96hrs

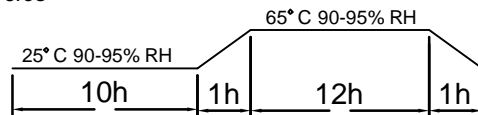
3.4 Temperature shock test

Cycles 14



3.5 Humidity cycle test

Cycles 10



3.6 High temp. life test

Temperature +85°C
Duration 96hrs

3.7 Low temp. life test

Temperature -20°C
Duration 96hrs

All these tests above should be measured after leaving normal temperature for 4hrs.

3.8 Vibration Test

Vibration Frequency 50~100~50Hz
Time 15min
Acceleration 5g
Direction x.y & z 2h (total 6hrs)

3.9 Drop test

Height 150cm(drop to concrete floor)
Direction one time in each 6 planes(total of 6 times)

3.10 Solderability

Temperature of soldering pot 250°C ± 5
Duration 2 ± 0.5sec

3.11 Pin lead strength

Force 10N
Duration 10 ± 1sec

Notice: All specification must be satisfied in this condition except SPL. SPL shall be 83dB or more.

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4. Surface Mounting Condition

In automated mounting of The SMD Sound Transducers on printed circuit boards, any bending, expanding and pulling forces or shocks against the SMD Sound Transducers shall be kept to a minimum to prevent them from electrical failures and mechanical damages of the devices.

Soldering (Reflow)

- (1) Soldering of The SMD Sound Transducers shall conform to the soldering conditions in the individual specifications.
- (2) The SMD Sound Transducers are designed for "Reflow Soldering"
- (3) In the reflow soldering, too high soldering temperatures and too large temperature gradient such as rapid heating or cooling may cause electrical failures and mechanical damages of the devices.

Following soldering conditions are recommended; Refer to Fig.1

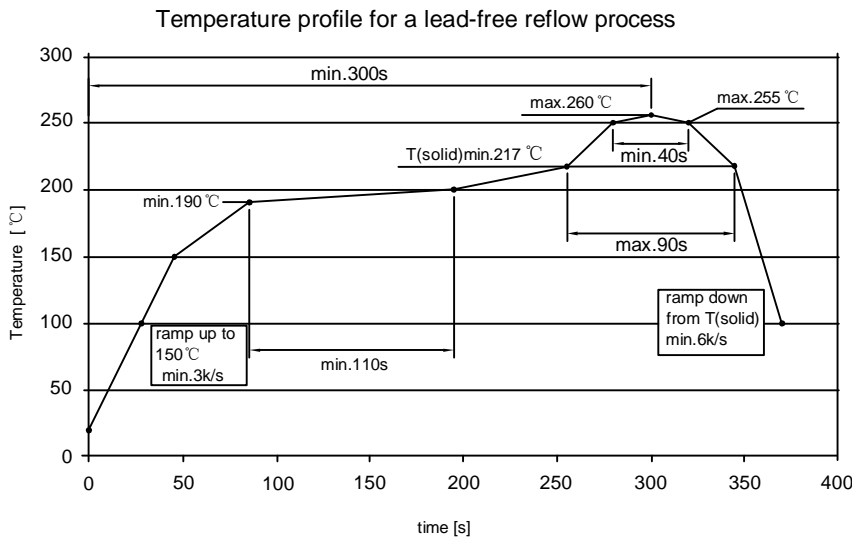
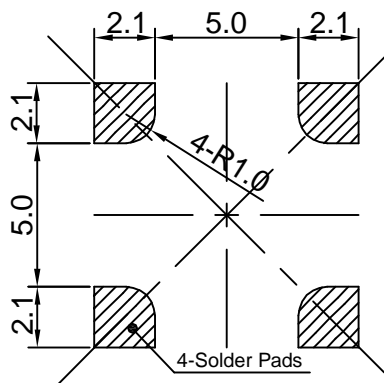


Fig. 1 Recommended soldering Temperature-Time profile (Reflow soldering)

Notice: All specification must be satisfied in this condition except SPL. SPL shall be 83dB or more.

5. Soldering Pattern



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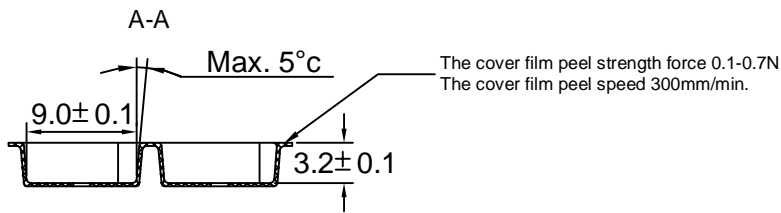
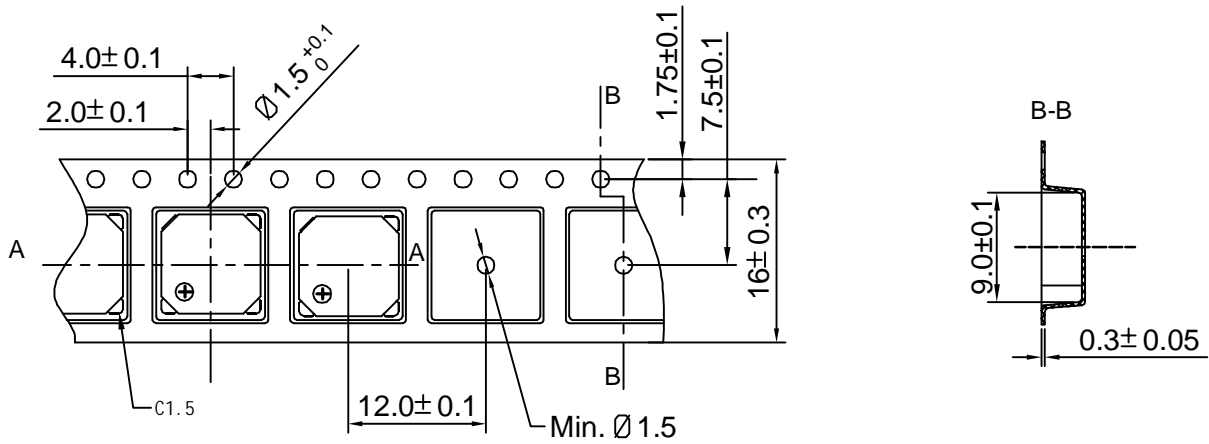
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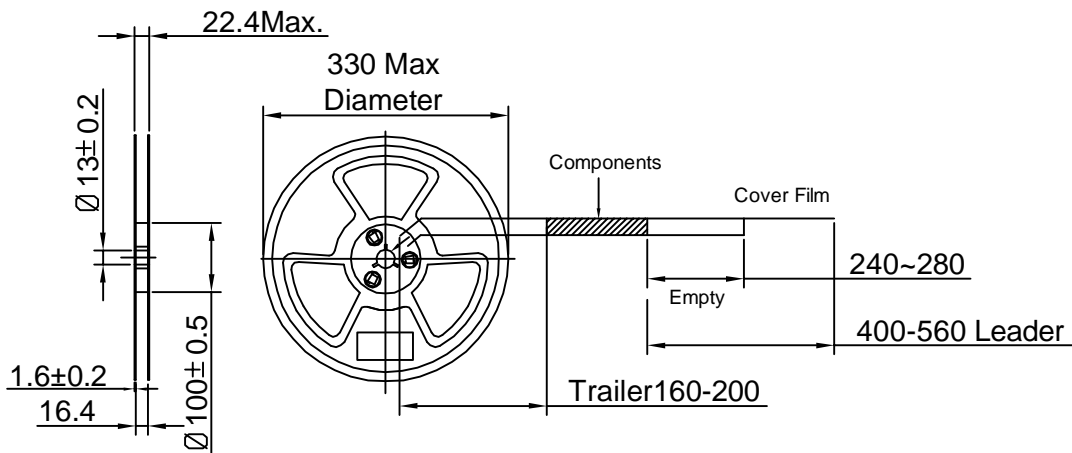
6. Tape on Reel Packing

6.1 packing drawing

Dimensions of carrier tape



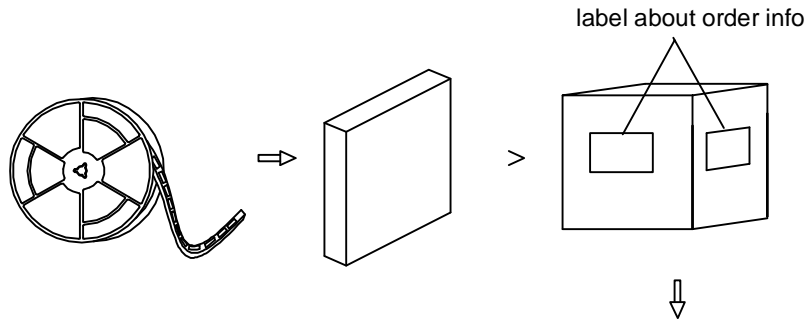
Dimensions of reel



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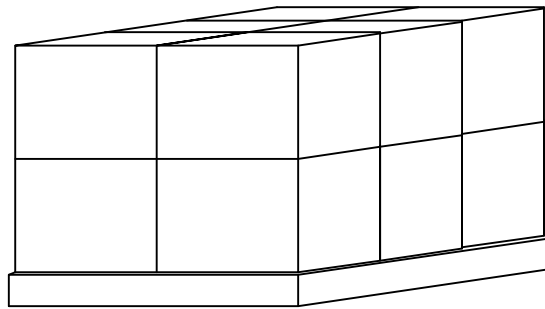
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6.2 packing quantity

- 6.2.1 1000pcs/reel
- 6.2.2 5reel/carton
- 6.2.3 5000 pcs/carton in total
- 6.2.4 carton size 38x28x37cm
- 6.2.5 12carton/tray
- 6.2.6 tray size 85x77x74cm



7. Notice

7.1 The products mustn't be washed

7.2 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.

7.3 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 delivery.

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.

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8. History change record

version No.	Change Items		Date	Drawn	Approved
	Before	After			
A			02/06/03	姜丽敏	查红红
B		ROHS	06/05/07	宋文娟	郭敏
C		Change the direction of reel	06/10/07	韩学慧	郭敏

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