



**SPECIFICATION  
FOR ELECTRO-MAGNET TRANSDUCER**

TOTAL PAGE	08	<a href="http://www.be-star.com">www.be-star.com</a>	RoHS
------------	----	--	------

Customer		Model Name	SMT8585-03H03 LF
Customer P/N		Product No.	050201
Date	04 Sep.18	Issue No.	BS/TET01.048D
Page	01 of 08	Issue Date	18/09/04

**Approval:**

- 1.Characteristics
- 2.Dimension
- 3.Reliability Test
- 4.Packing
- 5.Notice
- 6.History change record

Drawn by	Checked by	Approved by	Customer approved
包丽萍	李梅芳	赵 峥	

***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](mailto:wu@be-star.com)    **http://**[www.be-star.com](http://www.be-star.com)

# 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.



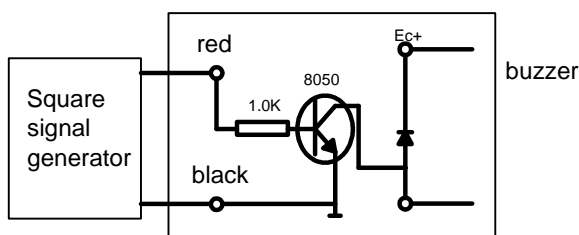
### 1.2 Electrical and Mechanical Characteristics

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:

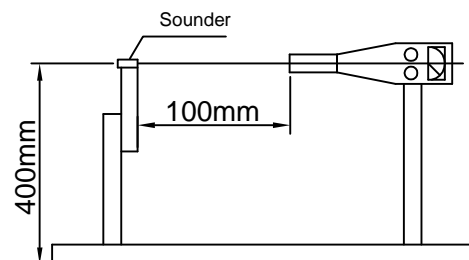
#### 1.31.Recommended Circuit

the following are examples of externally driven circuits.



#### 1.32.Standard test Fixture

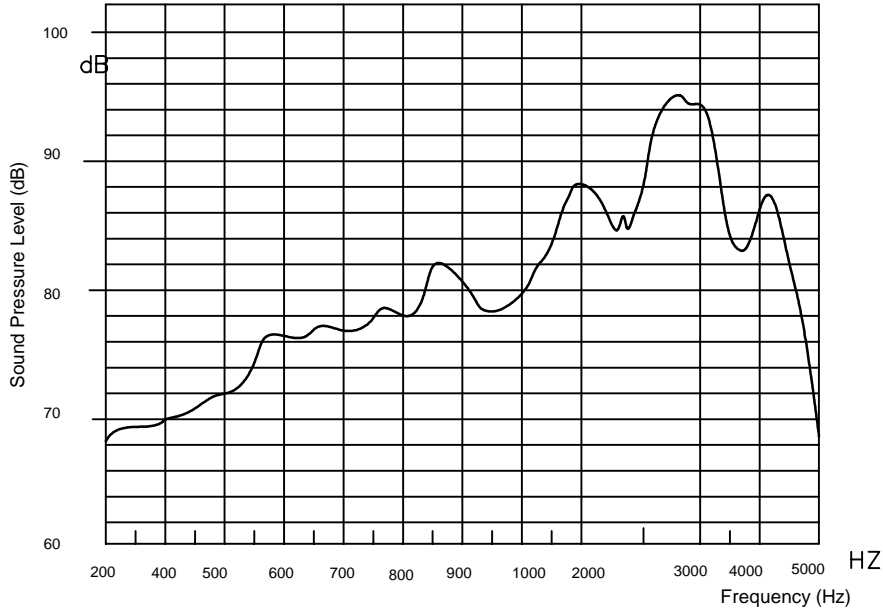
No reaction in space with in 400mm in all direction



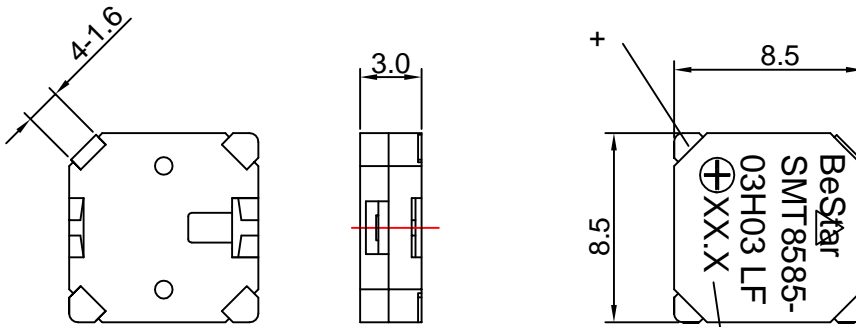
D	18/09/04	包丽萍		Date:	18/09/04	SMT8585-03H03 LF	
C	06/10/07	韩学慧		Drawn by:	包丽萍		
B	06/05/07	宋文娟		Checked by:	李梅芳	Transducer	
Rev.	Date	Drawn	Note	Approved by:	赵 峰		
BeStar Holding Co., Ltd.						DRG NO: BS/TET01.048D	Page:2 of 8
www.be-star.com wu@be-star.com							

# SMT8585-03H03 LF

## 1.4 Frequency Response(Square wave 3Vo-p 10cm)



## 2.Dimension



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

Remark:

colour of printing: Silvery  
 "XX.X" means "year.mouth"  
 E.g: Sep.2018 is "18.I"

D	18/09/04	包丽萍		Date:	18/09/04	SMT8585-03H03 LF	
C	06/10/07	韩学慧		Drawn by:	包丽萍		
B	06/05/07	宋文娟		Checked by:	李梅芳	Transducer	
Rev.	Date	Drawn	Note	Approved by:	赵 峥		
BeStar Holding Co., Ltd.						DRG NO: BS/TET01.048D	Page:3 of 8
www.be-star.com wu@be-star.com							

# SMT8585-03H03 LF

## 3. Reliability Test

### 3.1 High temp. storage life test

Temperature +85°C  
Duration 240hrs

### 3.2 Low temp. storage life test

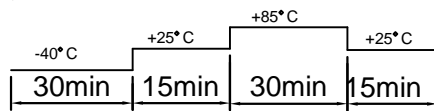
Temperature -40°C  
Duration 240hrs

### 3.3 Life test in normal temperature

Power supply Rated voltage  
Duration 96hrs

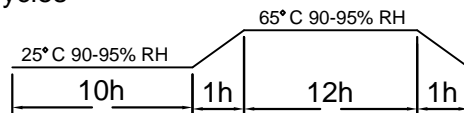
### 3.4 Temperature shock test

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.

D	18/09/04	包丽萍		Date:	18/09/04	SMT8585-03H03 LF	
C	06/10/07	韩学慧		Drawn by:	包丽萍		
B	06/05/07	宋文娟		Checked by:	李梅芳	Transducer	
Rev.	Date	Drawn	Note	Approved by:	赵 峥		
BeStar Holding Co., Ltd.						DRG NO: BS/TET01.048D	Page:4 of 8
www.be-star.com wu@be-star.com							

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

# SMT8585-03H03 LF

## 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

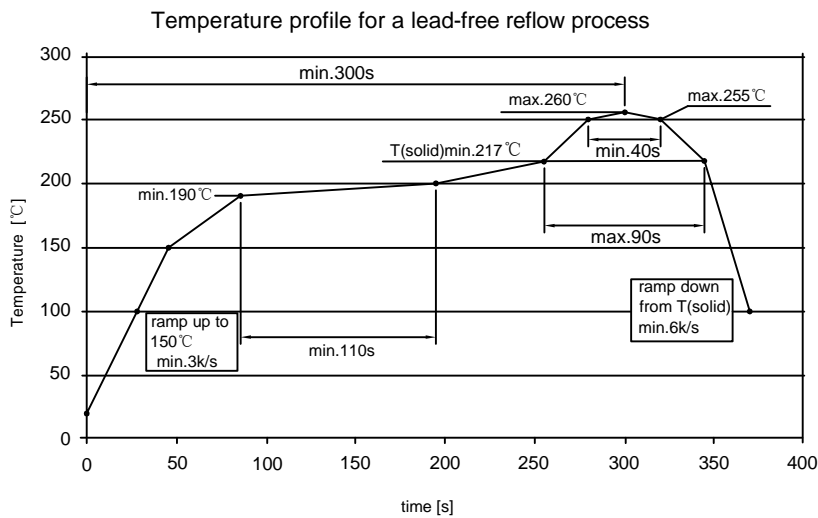
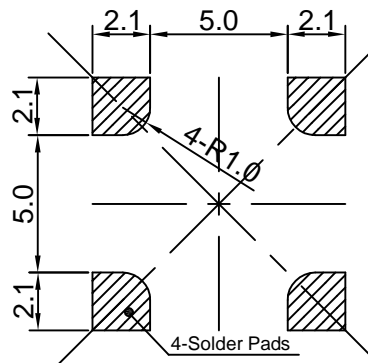


Fig. 1 Recommended soldering Temperature-Time profile (Reflow soldering)

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

## 5. Soldering Pattern



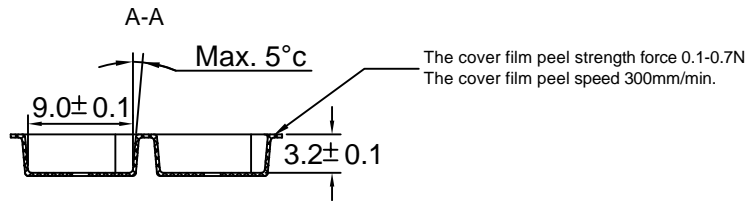
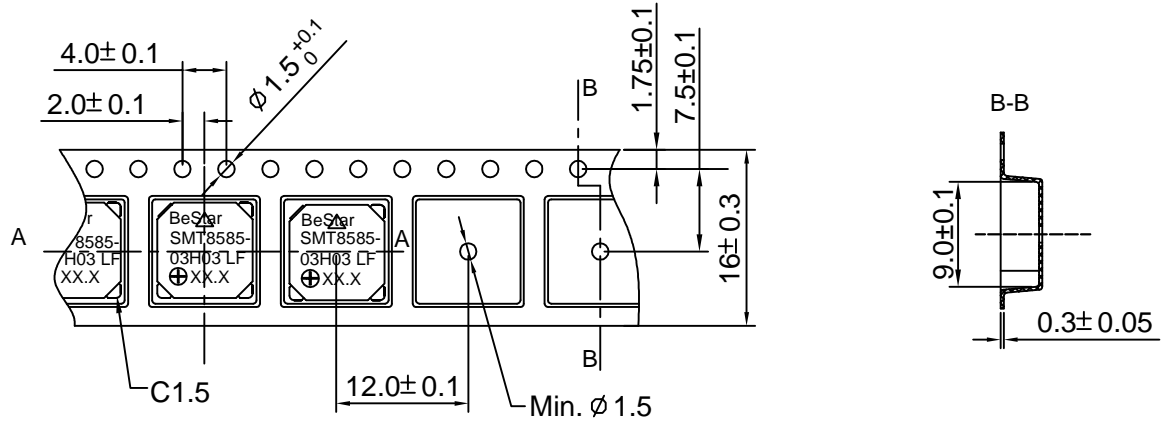
D	18/09/04	包丽萍		Date:	18/09/04	SMT8585-03H03 LF	
C	06/10/07	韩学慧		Drawn by:	包丽萍		
B	06/05/07	宋文娟		Checked by:	李梅芳	Transducer	
Rev.	Date	Drawn	Note	Approved by:	赵 峰		
BeStar Holding Co., Ltd.						DRG NO: BS/TET01.048D	Page:5 of 8

# SMT8585-03H03 LF

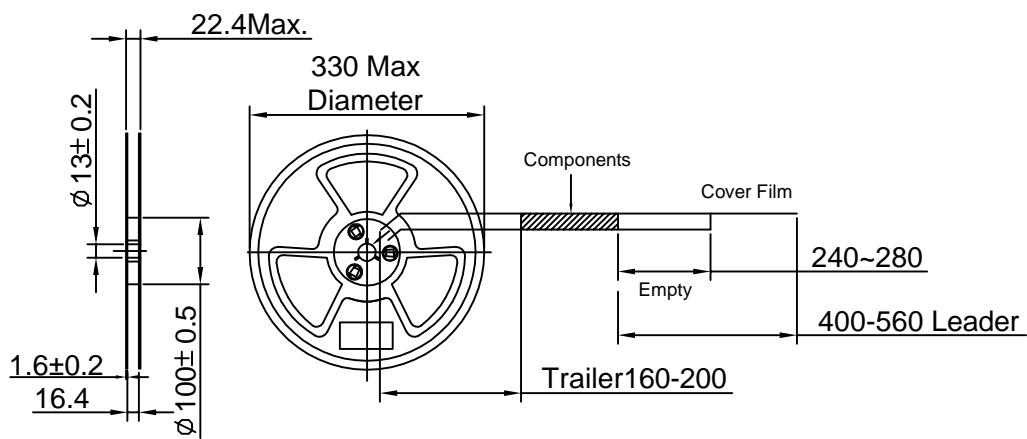
## 6. Tape on Reel Packing

### 6.1 packing drawing

#### Dimensions of carrier tape



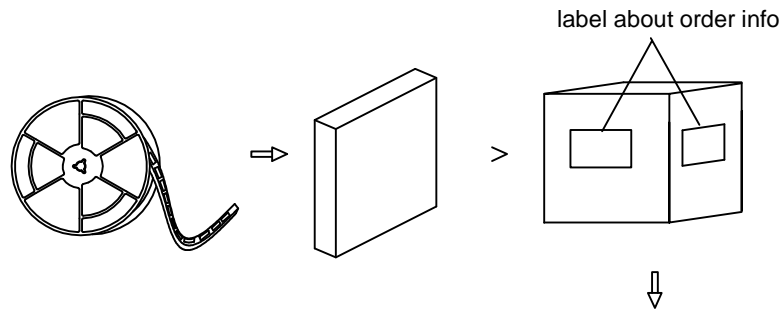
#### Dimensions of reel



D	18/09/04	包丽萍		Date:	18/09/04	SMT8585-03H03 LF	
C	06/10/07	韩学慧		Drawn by:	包丽萍		
B	06/05/07	宋文娟		Checked by:	李梅芳	Transducer	
Rev.	Date	Drawn	Note	Approved by:	赵 峥		
BeStar Holding Co., Ltd.						DRG NO: BS/TET01.048D	Page:6 of 8
www.be-star.com wu@be-star.com							

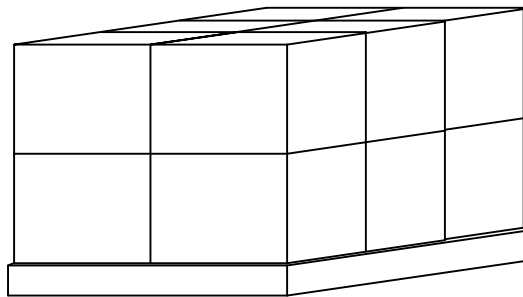
This print and information there in are proprietary to BeStar Electronics Industry Co., Ltd. and shall not be used in whole or in part without its written content

# SMT8585-03H03 LF



## 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.

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

D	18/09/04	包丽萍		Date:	18/09/04	SMT8585-03H03 LF	
C	06/10/07	韩学慧		Drawn by:	包丽萍		
B	06/05/07	宋文娟		Checked by:	李梅芳	Transducer	
Rev.	Date	Drawn	Note	Approved by:	赵 峥		
BeStar Holding Co., Ltd.						DRG NO: BS/TET01.048D	Page:7 of 8
<a href="http://www.be-star.com">www.be-star.com</a> <a href="mailto:wu@be-star.com">wu@be-star.com</a>							

