

SPECIFICATION FOR AUTOMOTIVE SPEAKER

Customer	
Customer P/N	
Bestar Model Name	BMS3650P1-LF
Product No.	133306
Issue No.	BS/TES01.031C
Issue Date	08/05/14

Approval:

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

Drawn by	Checked by	Approved by	Customer approved
丁小军	莫丽丽	郭敏	



BESTAR ELECTRONICS INDUSTRY CO.,LTD
No.199 HuangHe West Road.New district,changzhou,
jiangsu Province,P.R.China
Tel:86-519-88222567 Fax:86-519-88222551
Http:www.be-star.com
E-mail: wu@be-star.com, info@be-star.com

BMS3650P1-LF

1. Characteristic

1.1 Electrical and Mechanical Characteristics



1	Rated input	1W
2	Maximum input	1.5W
3	Resonance Frequency	540 ± 150Hz
4	Frequency Response	350...6000Hz
5	Impedance(at 1500Hz)	50ohm ± 15%
6	Output SPL	min79dB (12V DC power special circuit 30cm)
7	Buzzes & Rattles	must be normal at sine wave7.07V
8	Magnet	Nd-Fe-B
9	Diaphragm	PEI Film
10	Operation temperature	-40 °C...+85° C
11	Storage temperature	-40 °C...+85° C

2. Notice

2.1 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.

2.2 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.

2.3 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.

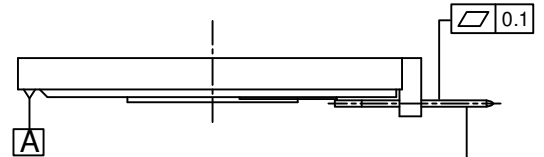
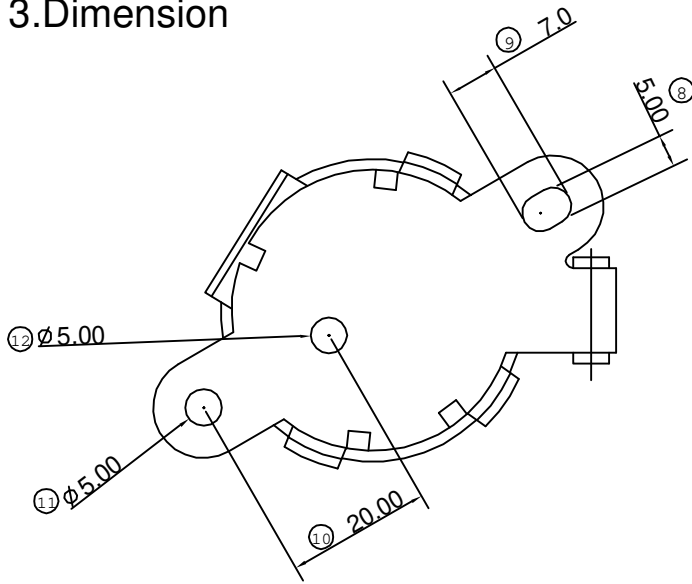
(2) Please use the products immediately after the package is opened, because the characteristics may be reduced at quality, and/or be degraded in the solderability due to storage under the poor condition.

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

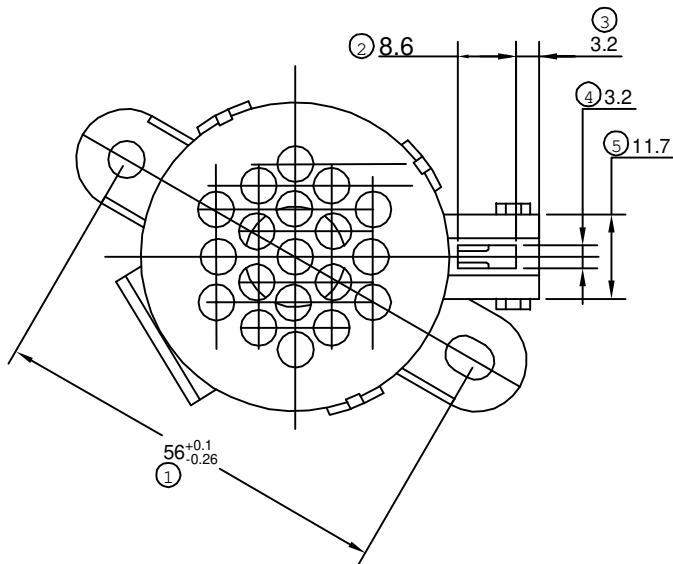
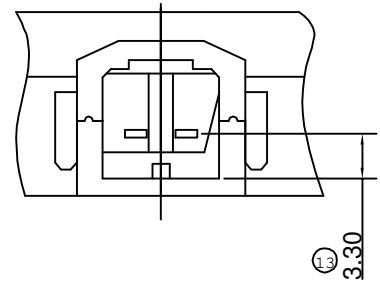
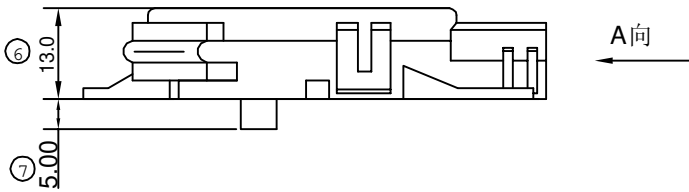
				Date:	08/05/14	BMS3650P1-LF	
C	08/05/14	丁小军		Drawn by:	丁小军		
A	03/01/03	王善梅		Checked by:	莫丽丽	Speaker	
Rev.	Date	Drawn	Note	Approved by:	张秀琴		
BESTAR ELECTRONICS INDUSTRY CO.,LTD www.be-star.com wu@be-star.com						DRG NO: BS/TES01.031C	Page:1 of 6

BMS3650P1-LF

3.Dimension



A向
2:1



TOLERANCE

.XX=±0.1

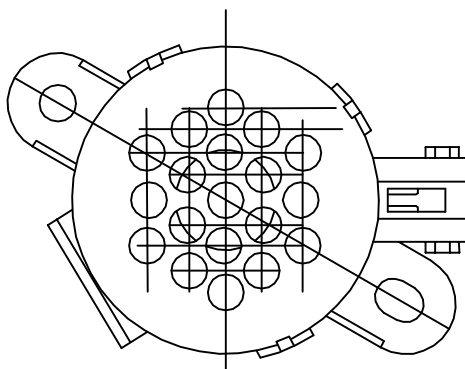
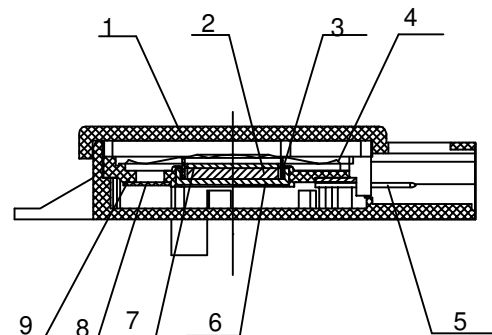
.X =±0.2

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

				Date:	08/05/14	BMS3650P1-LF	
C	08/05/14	丁小军		Drawn by:	丁小军		
A	03/01/03	王善梅		Checked by:	莫丽丽	Speaker	
Rev.	Date	Drawn	Note	Approved by:	张秀琴		
BESTAR ELECTRONICS INDUSTRY CO.,LTD						DRG NO: BS/TES01.031C	Page:2 of 6
www.be-star.com wu@be-star.com							

BMS3650P1-LF

4. Bill of Material



9	Frame	PBT
8	Mesh	SILK
7	Piece	SPCC
6	Magnet bowl	SPCC
5	Pin	BrassY68
4	Diaphragm	PEI
3	Voice Coil	φ0.05 wire, Annealed Copper Alloy
2	Magnet	N38H
1	Housing	PA6
No	Parts Name	Material

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

				Date:	08/05/14	BMS3650P1-LF	
C	08/05/14	丁小军		Drawn by:	丁小军		
A	03/01/03	王善梅		Checked by:	莫丽丽	Speaker	
Rev.	Date	Drawn	Note	Approved by:	张秀琴		
BESTAR ELECTRONICS INDUSTRY CO.,LTD						DRG NO: BS/TES01.031C	Page:3 of 6
www.be-star.com wu@be-star.com							

BMS3650P1-LF

5. Reliability test

5.1 Life Test/Load test/temperature cycling

Lower temperature	-40°C
upper temperature	+85°C
Dwell time	30 Min each temperature
Duration of whole test	240 h
dynamic operation with maximum rated voltage	

5.2 Heat Test

Temperature	+85 °C± 2
Duration	96hrs

5.3 Cold Test

Temperature	-40 °C± 2
Duration	96hrs

5.4 Moisture Test

Temperature	+85 °C± 2
Humidity	85%RH
Duration	56days
Recovery conditions: Climatic condition standard atmospheric	
Ventilation time 1 h	

5.5 Temperature shock

Low temperature	-40 °C
Upper temperature	+85 °C
Dwell time each temperature	30min.
Transfer time from lower to upper temperature	< 10s
Number of cycles	100

5.6 Vibration Test

Range of frequency 1	10 to 55Hz
Amplitude	+/-0.75mm
Range of frequency 2	55 to 2000Hz
Amplitude	10g
Frequency sweep	1 oct/min
Duration	2h each of 3 axis

5.7 Drop test

Drop the speaker contained in normal box on to the board 20mm thick 10 times from the height of 1.2m

After each test of 5.2 to 5.3, speakers should be measured after 6hrs exposed in normal temperature.

After each test, performance should be satisfied with spec.

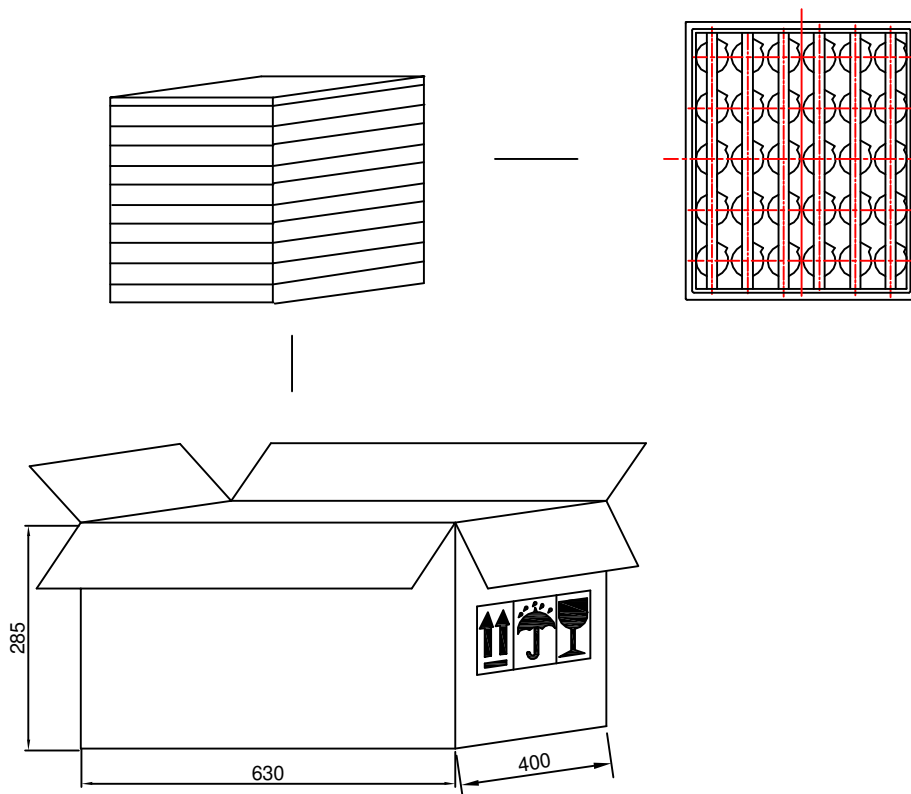
This print and information there in are proprietary to Bestar Electronics Industry Co., Ltd. and shall not be used in whole or in part without its written content

				Date:	08/05/14	BMS3650P1-LF	
C	08/05/14	丁小军		Drawn by:	丁小军		
A	03/01/03	王善梅		Checked by:	莫丽丽	Speaker	
Rev.	Date	Drawn	Note	Approved by:	张秀琴		
BESTAR ELECTRONICS INDUSTRY CO.,LTD						DRG NO: BS/TES01.031C	Page:4 of 6
www.be-star.com wu@be-star.com							

BMS3650P1-LF

6. Packing

6.1 Packing Drawing



6.2 packing quantity


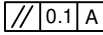
- 1) 30pcs per tray,
- 2) 20pcs tray per carton
- 3) 600pcs per carton,
- 4) carton size: 63X40X30cm

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.

				Date:	08/05/14	BMS3650P1-LF	
C	08/05/14	丁小军		Drawn by:	丁小军		
A	03/01/03	王善梅		Checked by:	莫丽丽	Speaker	
Rev.	Date	Drawn	Note	Approved by:	张秀琴		
BESTAR ELECTRONICS INDUSTRY CO.,LTD						DRG NO: BS/TES01.031C	Page:5 of 6
www.be-star.com wu@be-star.com							

BMS3650P1-LF

7. History change record

version No.	Change Items		Date	Drawn	Approved
	Before	After			
A			03/01/03	王善梅	郭敏
B		Add dimension:3.30	07/10/12	丁小军	张秀琴
		 0.1  0.1 A			
		Change the type of the wire,the new coil is without paper;change magnet use new diaphragm			
C		Change the frame	08/05/14	丁小军	张秀琴

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.

				Date:	08/05/14	BMS3650P1-LF
C	08/05/14	丁小军		Drawn by:	丁小军	
A	03/01/03	王善梅		Checked by:	莫丽丽	Speaker
Rev.	Date	Drawn	Note	Approved by:	张秀琴	
BESTAR ELECTRONICS INDUSTRY CO.,LTD						DRG NO: BS/TES01.031C
						Page:6 of 6