



SPECIFICATION  
FOR ELECTRO-MAGNET TRANSDUCER

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Customer		Model Name	BMT1612H14-20 LF
Customer P/N		Product No.	010335
Date	30 Mar. 09	Issue No.	BS/TET01.572B
Page	01 of 06	Issue Date	09/03/30

Approval:

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

Drawn by	Checked by	Approved by	Customer approved

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# BMT1612H14-20 LF



## 1.Characteristics

### 1.1Technical terms

No.	Item	Specifications
1	Operating Voltage	6...18Vo-p
2	Rated Voltage	12Vo-p
3	DC Coil Resistance at 25 °C	115±15 Ω
4	* Coil current at25 °C	≤40mA
5	* Sound Output at 10cm	≥85dB
6	Resonant Frequency	2048Hz
7	Operating Temperature	-40...+85°C
8	Storage Temperature	-40...+85°C
9	Weight	7g
* Value applying 2048Hz,square wave 12Vo-p with 50%duty		
Value applying 2000 ~3000Hz,square wave 12Vo-p with 50%duty(SPL ≥80dB)		

### 1.2 Test method:

**1.2.1.Recommended Circuit**  
the following are examples of externally driven circuits.

**1.2.2.Standard test Fixture**  
No reaction in space with in 400mm in all direction

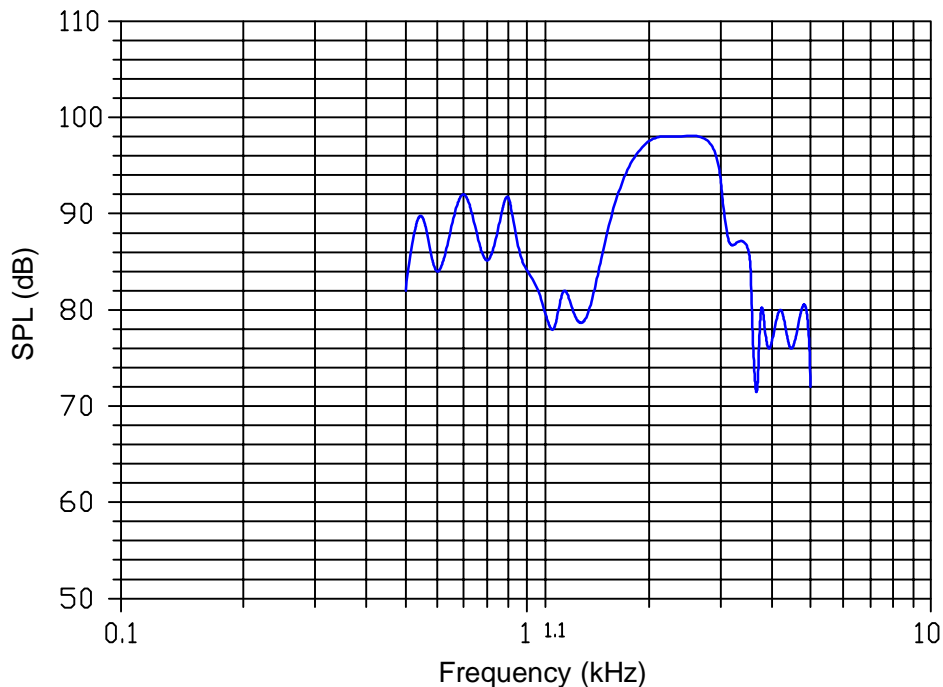
				Date:	09/03/30	BMT1612H14-20 LF	
B	09/03/30	魏奉玲	Add masking label	Drawn by:	魏奉玲		
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Rev.	Date	Drawn	Note	Approved by:	陶红仲		
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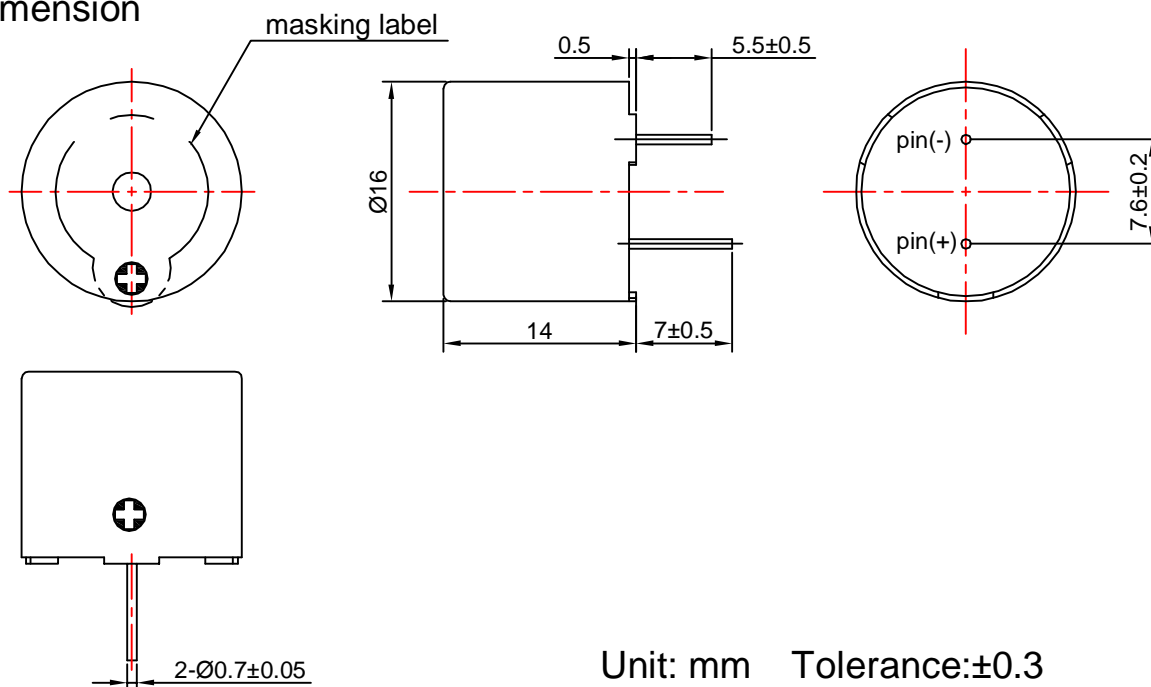
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1.3 Frequency response (square wave 12Vo-p 10cm)

MLS-Frequency Response



## 2. Dimension



Unit: mm Tolerance:  $\pm 0.3$

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## 3. Reliability test

### 3.1 High temperature test

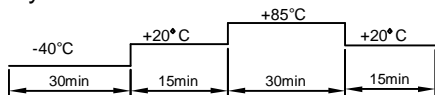
Temperature +85 °C  
Duration 96hrs

### 3.2 Low temperature test

Temperature -40 °C  
Duration 96hrs

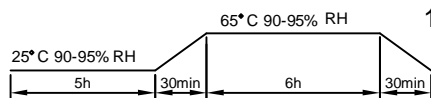
### 3.3 Temperature cycle test

Cycles 10



### 3.4 Humidity cycle test

Cycles 10



### 3.5 Normal temperature life test

Temperature normal temperature  
Power 12Vo-p 2048Hz with duty of 50%  
Duration 1000hrs

### 3.6 High temperature life test

Temperature +85°C  
Power 18Vo-p 2048Hz with duty of 50%  
Duration 500hrs

### 3.7 Low temperature life test

Temperature -40°C  
Power 12Vo-p 2048Hz with duty of 50%  
Duration 500hrs

### 3.8 Lead strength

Force 10N(pull load on the direction of the lead axis)  
Duration 10±1sec

### 3.9 Vibration Test

Vibration Frequency 10~55~10Hz(sine wave,sweep 1min)  
Amplitude 1.52mm(Max91m/s<sup>2</sup>)  
Duration x,y&z directions 2h/direction(total 6h)

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

After the test the part shall meet specifications without any degradation in appearance and performance except SPL.SPL shall be ≥80dB at rated frequency ≥75dBat reactivated frequency range.

### 3.10 Drop test

Height 70cm (to 40mm thickness woodenboard)  
Direction x,y&z directions once(total 3 times)

### 3.11 Solderability test

Solder temperature 255±5°C  
Soaking time 3±0.5sec

(95% surface of lead pins must be covered with fresh solder and no soldering holes should be found)

### 3.12 Solder heat resistance

Solder temperature 350±10°C  
Soaking time 3.5±0.5sec

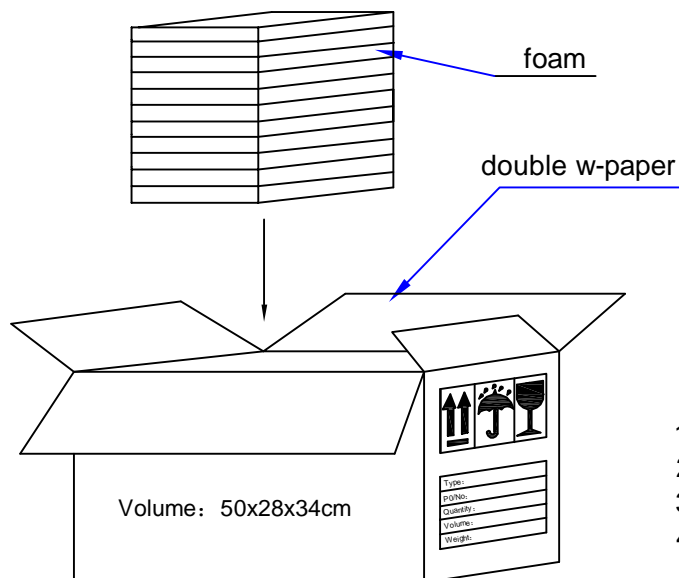
After test the part shall meet specification without any degradation in appearance adn performance.

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## 4. Packing



- 1)50pcs/tray
- 2)40trays/carton
- 3)2000pcs/carton in total
- 4)carton size 50x28x34cm

## 5. Notice

5.1 The products mustn't be washed

### 5.2 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.

### 5.3 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 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.

### 5.4 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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