



SPECIFICATION
FOR ELECTRO-MAGNET TRANSDUCER

TOTAL PAGE 07 www.bestargroups.com RoHS

Customer		Model Name	BMT1201H8.5F-02 LF
Customer P/N		Product No.	010205
Date	05 May. 2014	Issue No.	BS/TET01.004E
Page	01 of 07	Issue Date	2014/05/05

Approval:

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

Drawn by	Checked by	Approved by	Customer approved
常琦	徐波	徐金国	

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BMT1201H8.5F-02 LF

1. Characteristics

1.1 Features

1. Dimension: $\varnothing 12 \times 8.5$
2. High S.P.L.; and clear sound
3. RoHS compliant
4. Minimum quantity (one carton): 3000 pcs.



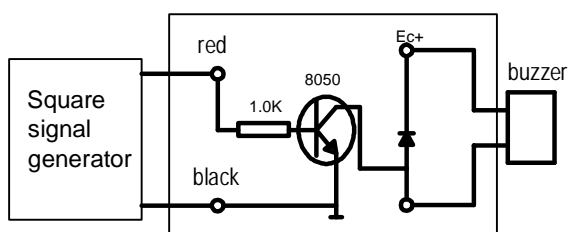
1.2 Electrical and Mechanical Characteristics

No.	Item	Specifications
1.	Rated voltage	1.5Vo-p
2.	Operating voltage range	1-3.5Vo-p
3.	Rated frequency	2048Hz
4.	a) Rated current	Max.15mA
5.	Coil resistance	42ohm \pm 6ohm
6.	b) Coil impedance	120ohm
7.	a) Sound pressure level	min.85dB at 10cm
8.	Operating temperature	-25...+70°C
9.	Storage temperature	-30...+85°C
10.	Weight	2g
a) Value applying rated voltage(2048Hz,50%duty,square wave 1.5Vo-p)		
b) Value applying at rated voltage (2048Hz,sine wave measuring current 60 μ A)		

1.3 Test method:

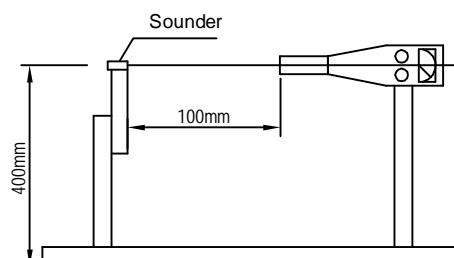
1.31.Recommended Circuit

the following are examples of externally driven circuits.



1.32.Standard test Fixture

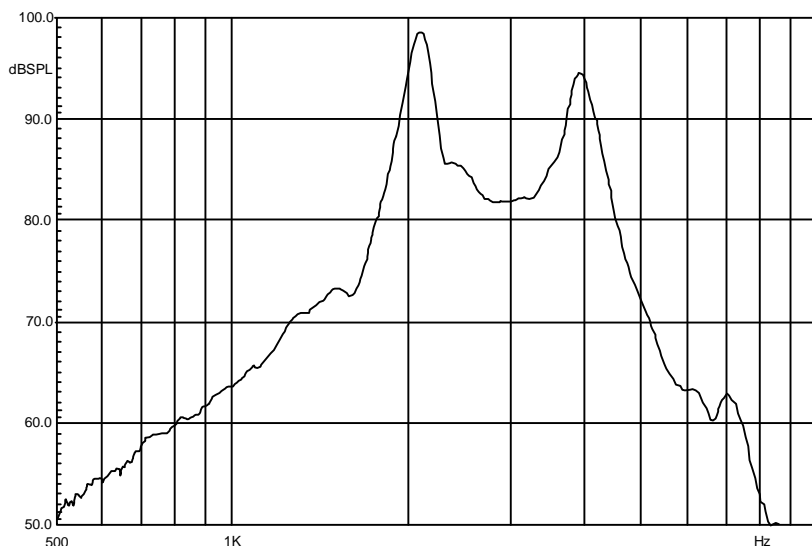
No reaction in space with in 400mm in all direction



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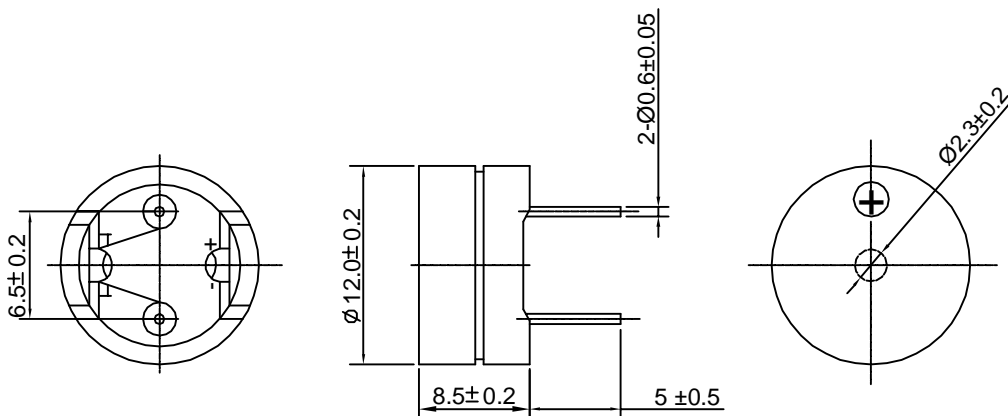
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1.4 Frequency Response(Square wave 1.5Vo-p 10cm)



2. Dimension

Tolerance: ± 0.3 Unit: mm



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3. Reliability test

3.1 High temperature test

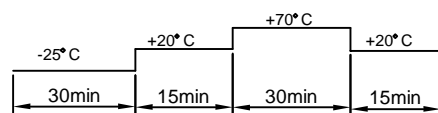
Temperature +70° C
 Duration 96hrs

3.2 Low temperature test

Temperature -25° C
 Duration 96hrs

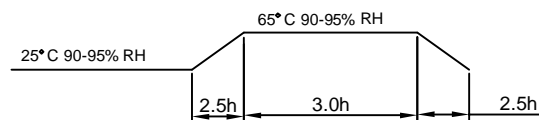
3.3 Temperature cycle test

Cycles 5



3.4 Humidity cycle test

Cycles 10



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

3.5 Load test

Power supply rated voltage
 Duration 1000hrs

3.6 Vibration Test

Vibration Frequency 10~55Hz
 Amplitude 1.5mm
 Duration x,y&z directions 30min

3.7 Drop test

Height 70cm
 (to 10mm thickness woodenboard)
 Direction 3

3.8 Solderability test

Temperature 255±5° C
 Duration 3±0.5sec

Notice: specification must be satisfied in this condition ,except S.P.L(S.P.L shall be 80dB more).

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4. Soldering Condition

4.1 Wave soldewing

- (1) Solderings of The Sound Transducers shall conform to the soldering conditions in the individual specifications.
- (2) The Sound Transducers are designed for "Wave Solderings"
- (3) In the wave solderings, 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.

Follwing soldering conditions are recommend; Refer to Fig.1

Temperature profile for a lead-free wave soldering process

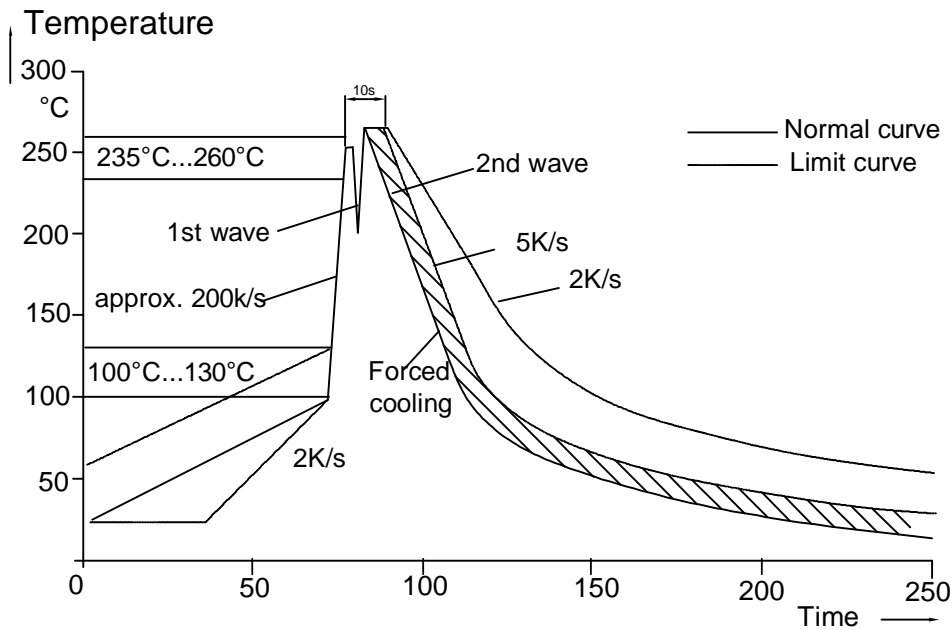


Fig. 1 Recommended soldering Temperature-Time profile (wave soldering)

4.2 Hand Soldering (Recommend using constant searing-iron)

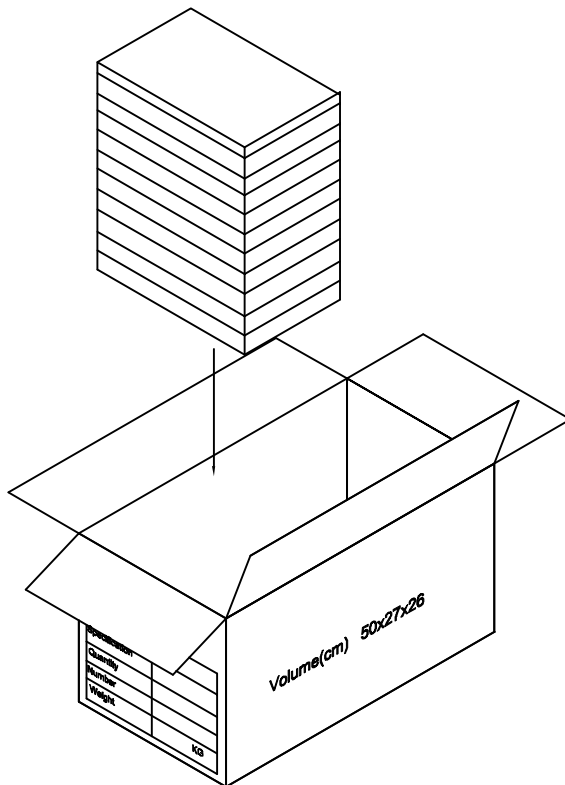
Temperature $360^{\circ}\text{C} \pm 5^{\circ}\text{C}$
Duration $\leq 3\text{sec}$

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5. Packing



- 1)100pcs/tray
- 2)30trays/carton
- 3)3000 pcs/carton in total
- 4)carton size 50x27x26cm

6. Notice

6.1 The products mustn't be washed

6.2 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.

6.3 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.

6.4 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.

(3) Please do not drop the products to avoid cracking of ceramic element.

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