RoHS

音 賜 股 份 有 限 公 司

Ariose Electronics Co., Ltd.

SPECIFICATION FOR MAGNETIC BUZZER

Item No.: LF- MB13T05

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Specification of Magnetic Buzzer

1. Scope

   This specification is applied to the magnetic buzzer, which are used for alarm systems.

2. Item No.: LF-MB13T05

3. Ratings

● Rated Voltage	:	5.0 VDC
● Operating Voltage	:	4.0 ~ 7.0 VDC
● Current Consumption	:	30 mA max. Applying rated voltage.
● Sound Pressure Level	:	90dB min. Applying rated voltage at 10cm.
● Resonant Frequency	:	2,400 ± 300 Hz
● Operating Temperature	:	- 30°C ~ + 85 °C
● Storage Temperature	:	- 40°C ~ + 85 °C
● Case material	:	PPS

4. Outline Drawing and Dimensions

   * Appearance: No visible damage and dirt
   * Dimensions: as per Fig. 1

5. Electrical Requirements should be specified at room temperature and humidity.
   (Ref. Temperature: 25 ± 3°C, Humidity: 60 ± 10% RH)

6. Physical Characteristics

	Test Items	Test Conditions	Performance Requirements
6-1.	Vibration	Transducer shall be measured after being applied vibration of amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each three mutually perpendicular directions for 2 hours.	The measured values meet Table 1.
6-2.	Drop Test	The buzzer is placed in a normal box, drops testing by each direction, total 6 times from 75cm height free falling onto a hard wood board of 4cm thick.	The measured values meet Table 1.

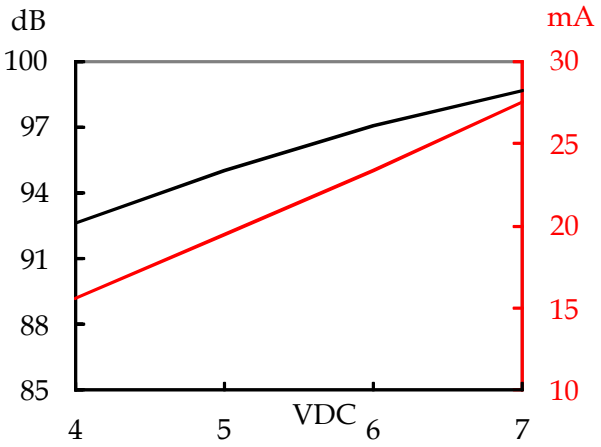
7. Environmental Characteristics

	Test Items	Test Conditions	Performance Requirements
7-1.	High Temperature (Static test)	After being placed in a chamber with +85 ± 3°C for 96 hours and then being placed in natural condition for 4 hours without applying power, transducer shall be measured.	The measured values shall meet Table 1.
7-2.	Low Temperature (Static test)	After being placed in a chamber with -40 ± 3°C for 96 hours and then being placed in natural condition for 4 hours without applying power, transducer shall be measured.	
7-3.	Humidity (Static test)	After being placed in a chamber with 90 to 95% R.H. at + 40 ± 2°C for 96 hours and then being placed in natural condition for 4 hours without applying power, transducer shall be measured.	
7-4.	Temperature Cycle (Static test)	Be placed in a chamber at -20℃ ⟶ +25℃ ⟶ +85℃ ⟶ +25℃ 30min. 15min. 30min. 15min. × 5cycles After above test, sounder shall be measured after being placed in natural condition for 4 hours ; without applying power.	

Table 1.

Items	Performance Requirements
Sound Pressure Level	Original Level ± 10 %
Current Consumption	Original Value ± 15 %
Appearance	No unusual changes should be found

8. Sound Pressure Level and Current Consumption vs. DC Voltage



9. Dimensions Unit: mm ± 0.5

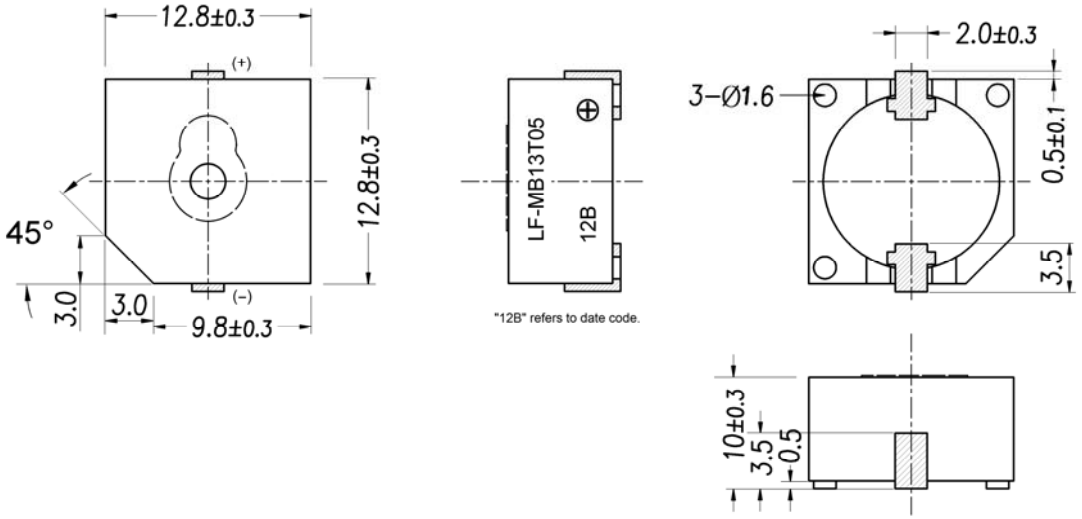
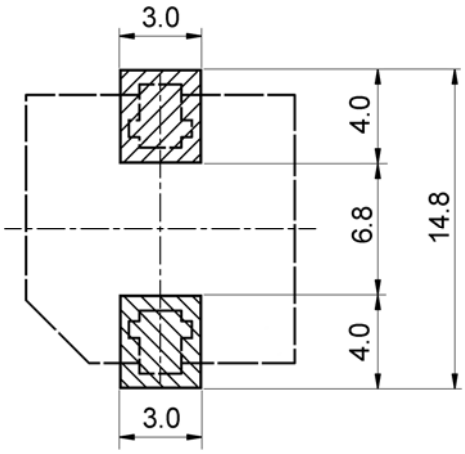


Fig. 1

10. Recommended for PCB pad layout: Unit: mm



11. Test Circuit

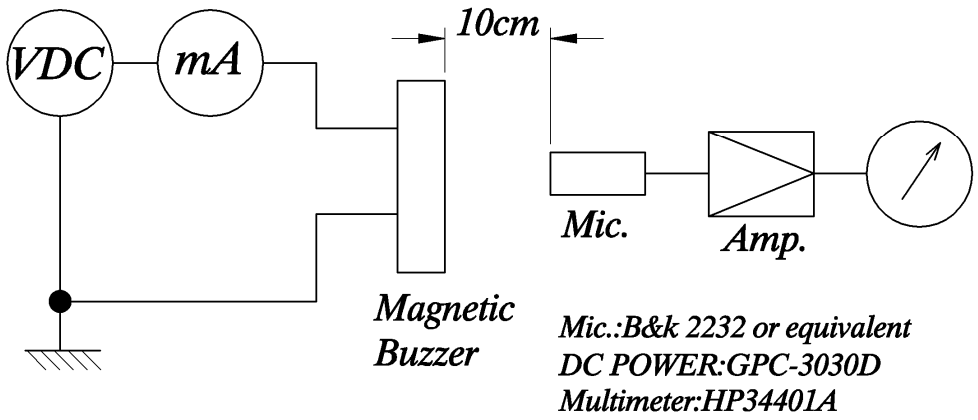
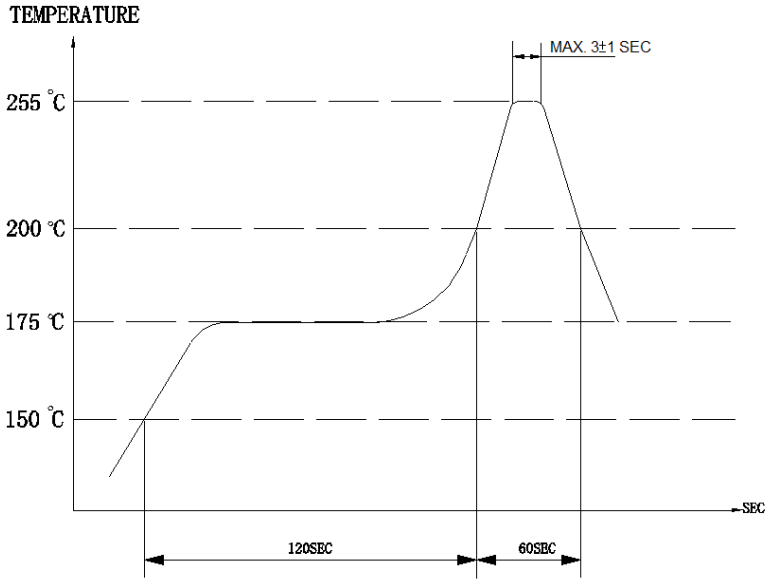


Fig. 2

12. Soldering Condition

12-1. Recommendable reflow soldering condition is as follows

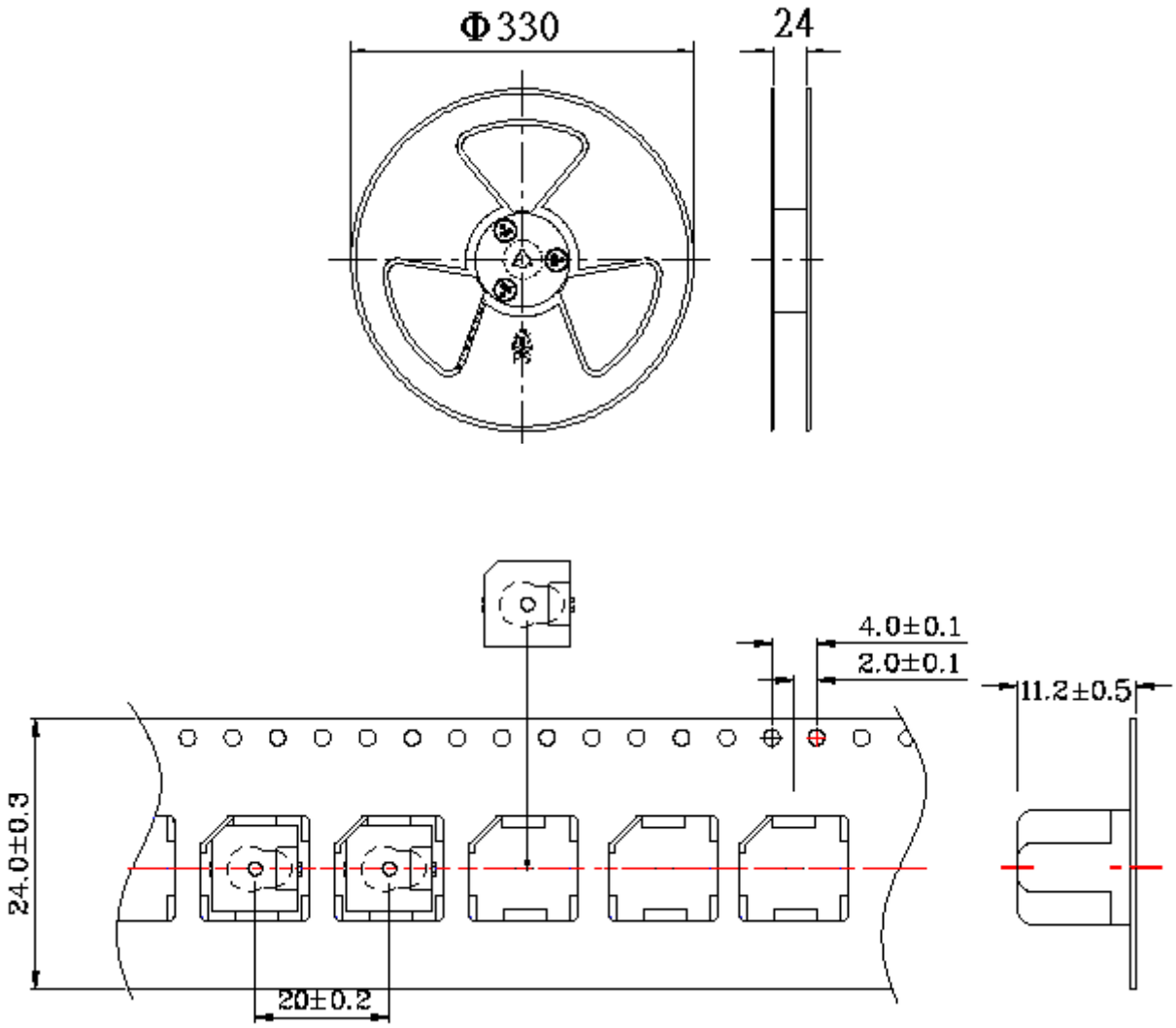
Note: It is requested that reflow soldering should be executed after heat of product goes down to normal:



12-2. Manual soldering:

The temperature of soldering iron: 350±10℃ within 1.5sec. max.

13. Packing of reels for facial-mounting buzzers
Quantity packed in a reel: 320pcs.



14 . Remark:

因環保規範、材料取得、製程精進等因素，在規格特性未變更下，本公司得就材料逕行調整，毋須通知客戶。

At the same spec of material changed without notice, due to the environmental protection, material sources and process improvement norms etc.