

# Buzzer, Magnetic

## SB050PM-12810-S90

### Description

A magnetic SMD buzzer is an electronic device that produces a sound when an electrical signal is applied to it. The function of a magnetic buzzer is to provide an audible alert or notification in various electronic devices such as alarms, timers, and electronic toys. The buzzer consists of a coil of wire and a magnet that vibrate when an alternating current is passed through the coil.



### Applications

- Electronic devices
  - Industrial and commercial equipment
  - Home appliances
  - Toys and games
  - Sound effects
  - Audio Alerts
  - Warning Signals
  - Audio Feedback
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### Features

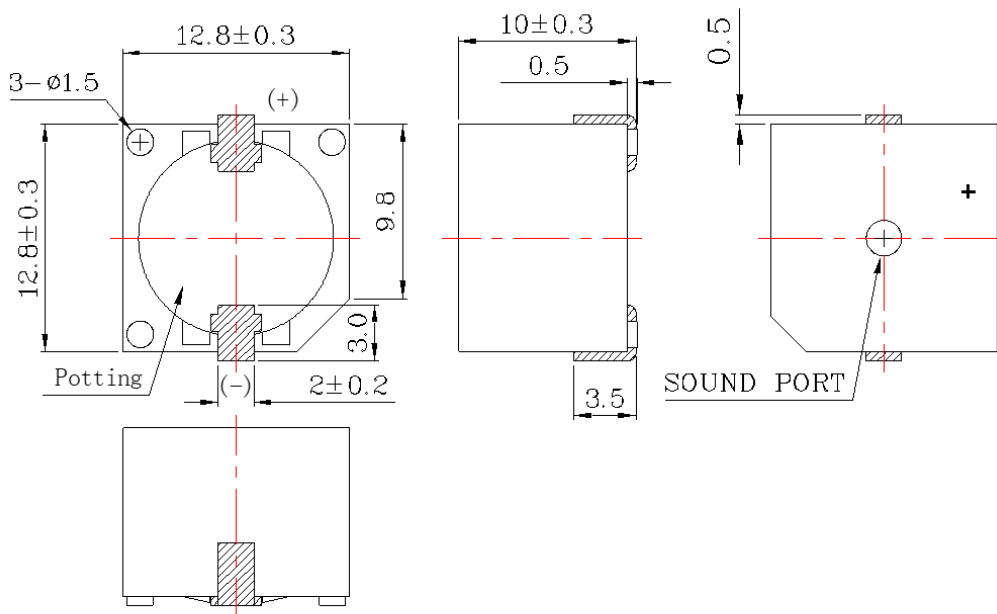
Item	Specification	Unit	Condition
Oscillation frequency	2.4	KHz	
Operating voltage	4~7	Vdc	
Rated voltage	5	Vdc	
Current consumption	MAX.30	mA	at Rated Voltage
Sound pressure level	MIN.90	dB	at 10cm at Rated Voltage
Operating temperature	-30~ +85	°C	

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Storage temperature	-30 ~ +85	°C	
Dimension	12.8 x 12.8 x 10	mm	See appearance drawing
Housing material	PPS( Gray )		
Leading pin	Tin plated copper		See appearance drawing
Certifications	RoHS		

### Appearance drawing



Tol : ± 0.5 Unit: mm.

## Testing method

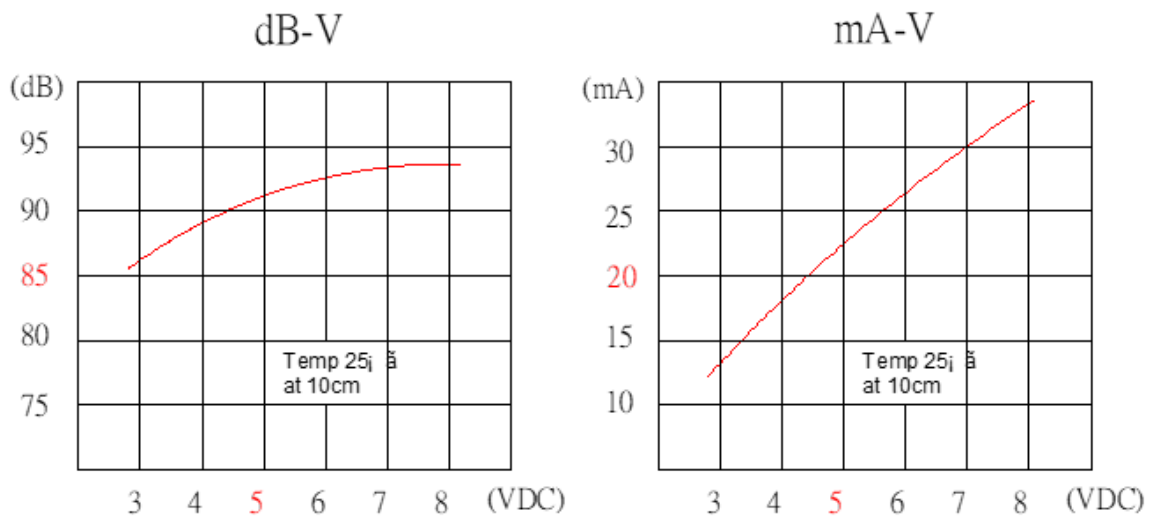
Standard Measurement conditions

Temperature:	25±2°C
Humidity:	45-65%

### Acoustic Characteristics

The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments at 10 cm

## Voltage/current/Sound Pressure Characteristics



Reliability test

Item	Test condition and requirement
<b>High Temperature Test (Storage)</b>	After being placed in a chamber with 85±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
<b>Low Temperature Test (Storage)</b>	After being Placed in a chamber with -40±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
<b>Humidity Test</b>	After being Placed in a chamber with 90-95% R.H. at 40±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
<b>Temperature Cycle Test</b>	<p>The part shall be subjected to 5 cycles.</p> <p>One cycle shall be consist of :</p> <p>Allowable variation of SPL after test: ±10dB.</p>
<b>Drop Test</b>	Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ±10dB.
<b>Vibration Test</b>	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours. Allowable variation of SPL after test: ±10dB.
<b>Solderability Test</b>	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300±5°C for 3±1 seconds. 90% min. lead terminals shall be wet with solder (Except the edge of terminals).

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### Terminal Strength

### Pulling Test

The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

## Test condition

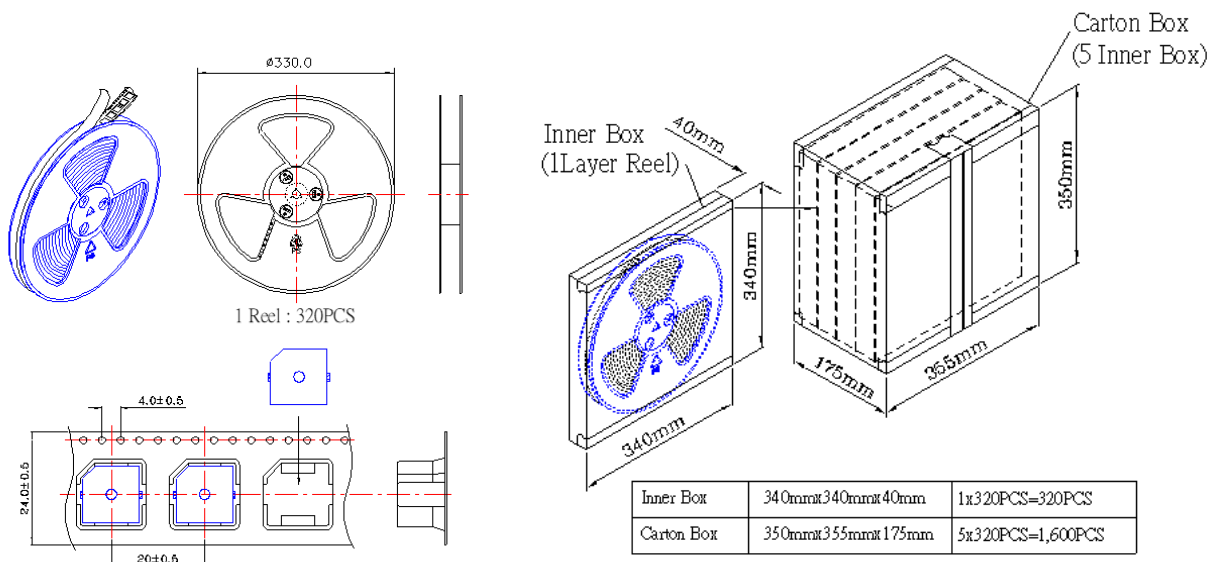
### Standard Test Condition

Temperature:	+5 ~ +35°C
Humidity:	45 - 85%
Pressure:	860 – 1060 mbar

### Judgment Test Condition

Temperature:	+25 ± 2°C
Humidity:	60 - 70%
Pressure:	860 - 1060mbar

## Package



## Part number

SBXXXXX-XXX-XX

SB	Buzzer
XXX	Rated power
X	Passive / Active
X	Piezo / Magnetic
XXXXX	Size
X	THT / SMD
XX	dB @ rated power

## Ordering information

Ordering can be done via [www.summit-electronics.com](http://www.summit-electronics.com) or via [info@summit-electronics.com](mailto:info@summit-electronics.com). Please contact us for more information. Customisation of the product is available on request.

## Technical support

For all product questions please contact us via [info@summit-electronics.com](mailto:info@summit-electronics.com)

## Document revision

Rev	Date	changes
V01.00	10-06-2023	First issue of document