



# Magnetic Buzzer

**Ø9.0 × 4.0 mm**

**With SMD**

**CC09M04M16 -2000**

## Revision

Date	Version	Status	Changes	Approver
2019/11/19	V0.1	Draft	First release	AX

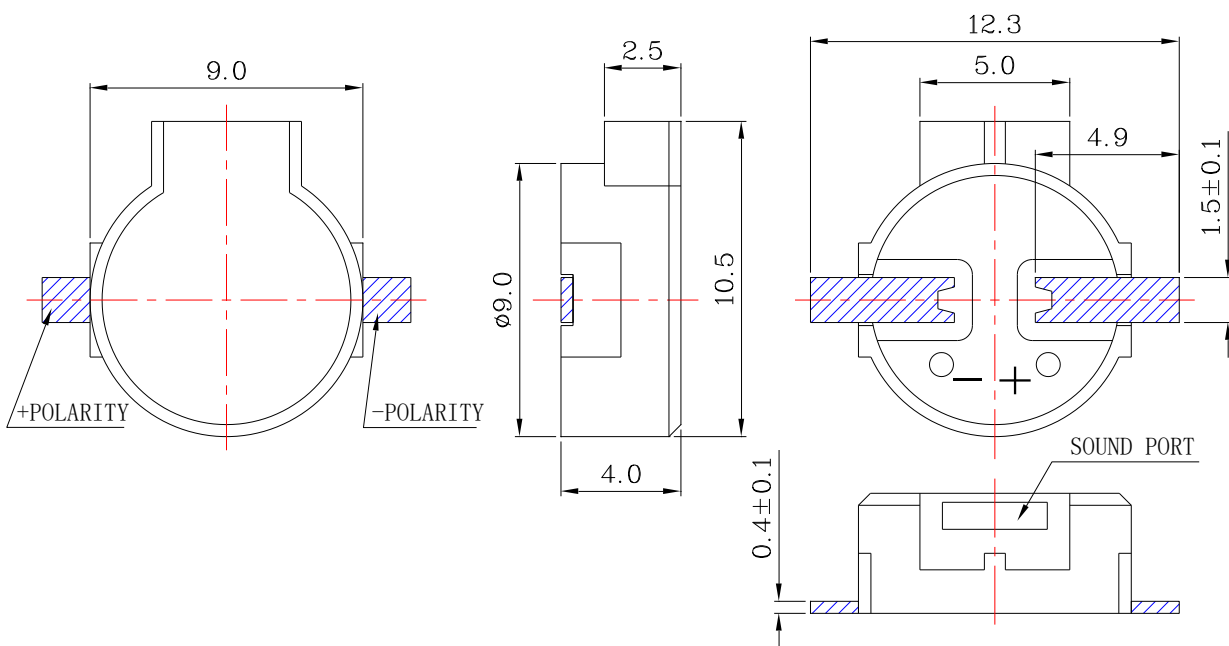
## A. SCOPE

This specification applies magnetic buzzer,

## B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2000	Vo-p=1/2duty , square wave
2	Operating Voltage	Vo-p	2.0 ~ 4.0	
3	Rated Voltage	Vo-p	3.6	
4	Current Consumption	mA	MAX. 100	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 80	at 10cm at Rated Voltage
6	Coil Resistance	$\Omega$	16 $\pm$ 3	
7	Operating Temperature	$^{\circ}\text{C}$	-20 ~ +70	
8	Storage Temperature	$^{\circ}\text{C}$	-30 ~ +80	
9	Dimension	mm	$\Phi$ 9.0 x H4.0	See appearance drawing
10	Weight (MAX)	gram	1.0	
11	Housing Material		PPS( Black )	
12	Leading Pin		Plated Brass(Au)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

## C. APPEARANCE DRAWING



**Tol :  $\pm$  0.5**

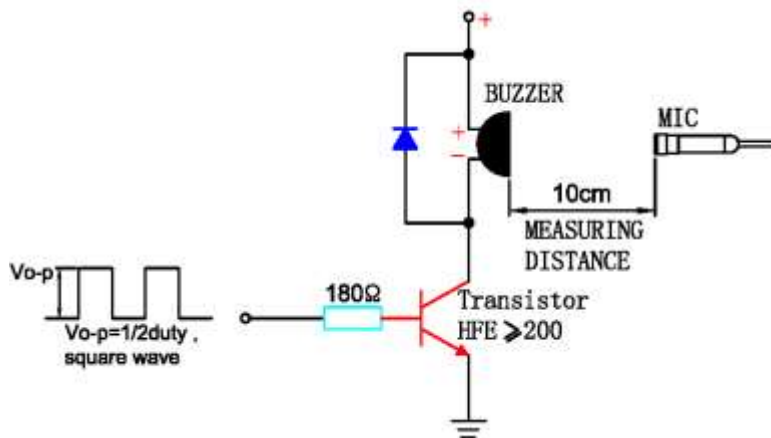
**Unit: mm**

**Standard Measurement conditions**

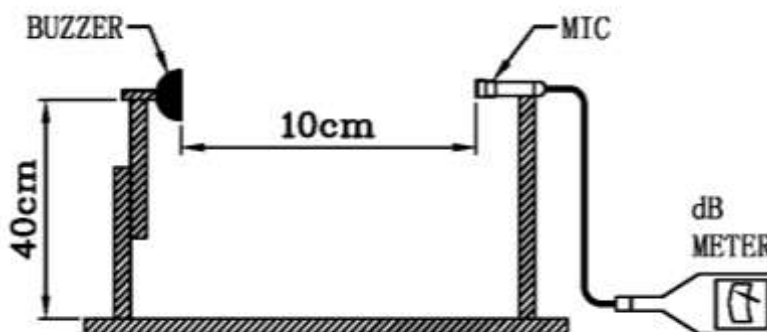
Temperature:  $25 \pm 2^{\circ}\text{C}$  Humidity: 45-65%

**Acoustic Characteristics:**

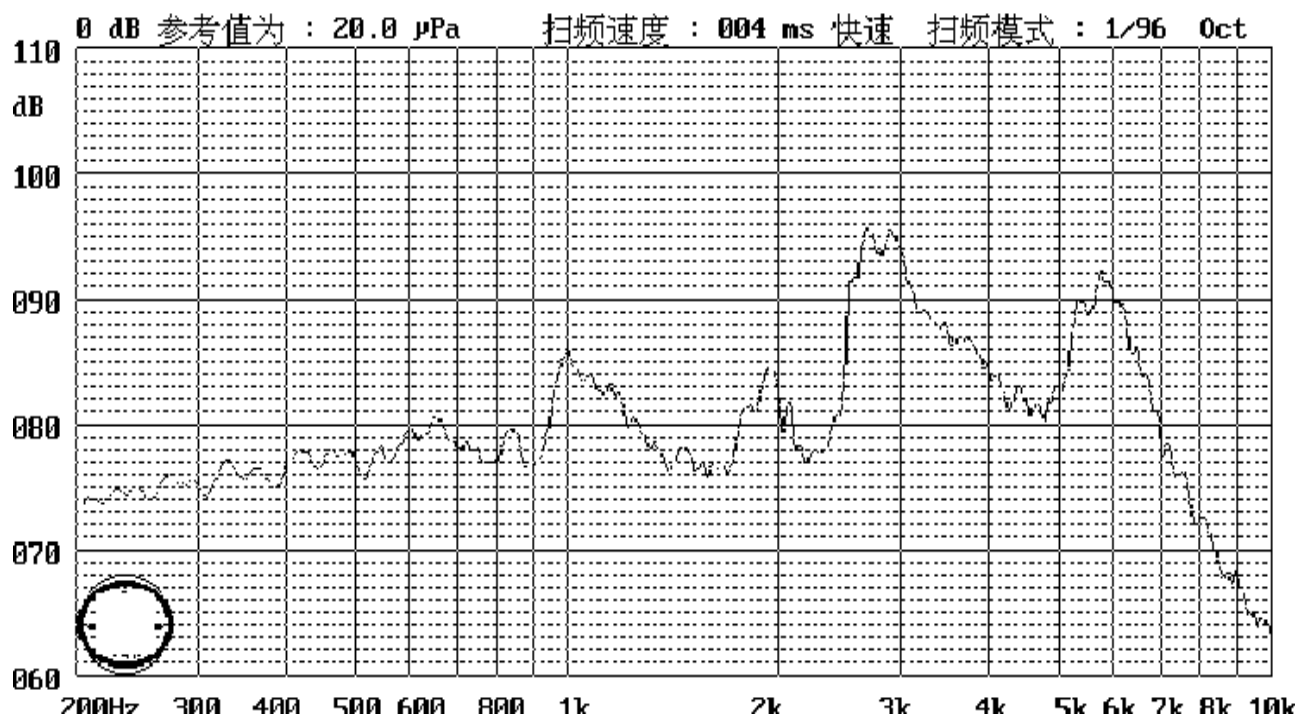
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below

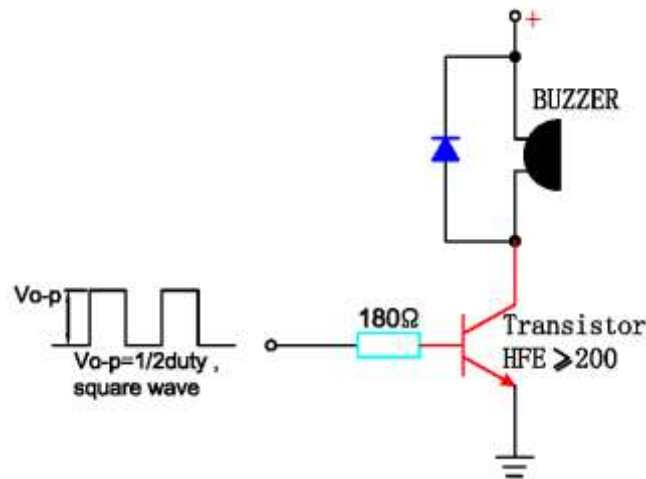


In the measuring test, buzzer is placed as follows:



**E. Typical Frequency Response Curve**



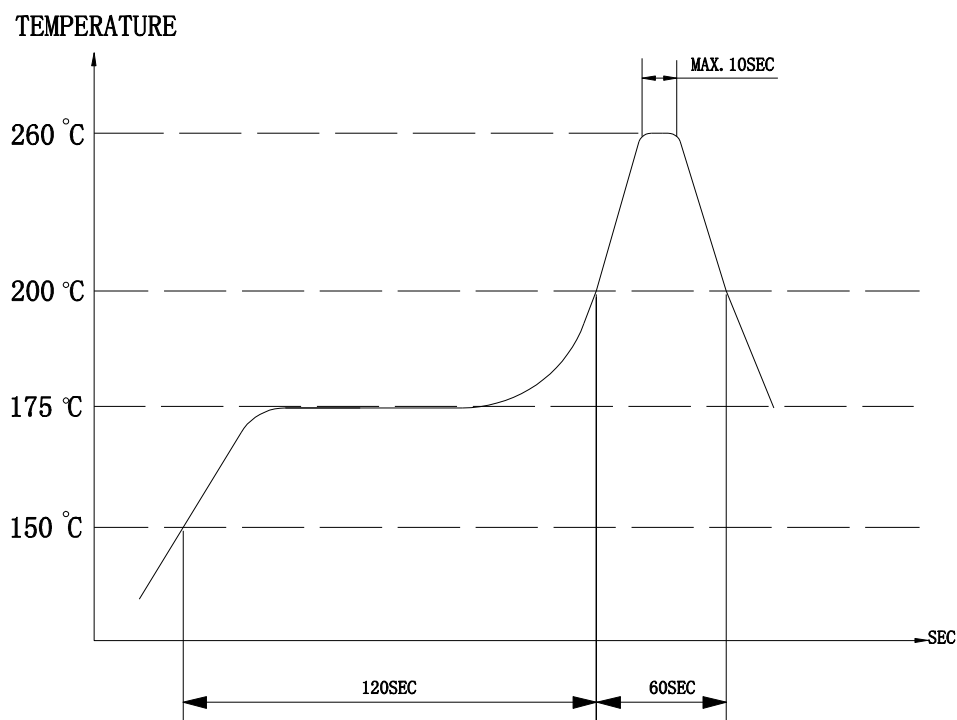


The base current  $I_b$  should be high enough so that it saturates the collector current of the transistor with the CB load.

G. Soldering Condition

- (1) Recommendable reflow soldering condition is as follows
- (Reflow soldering is twice)

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

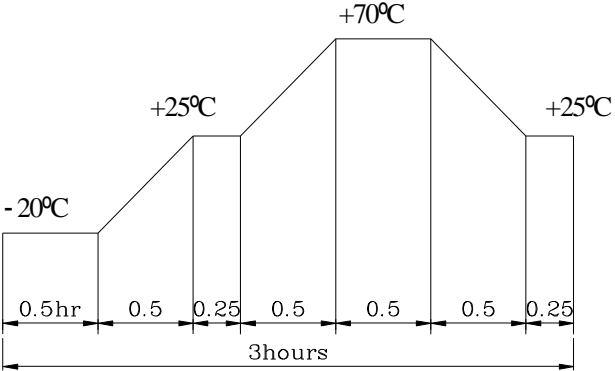


Heat resistant line

(Used when heat resistant reliability test is performed)

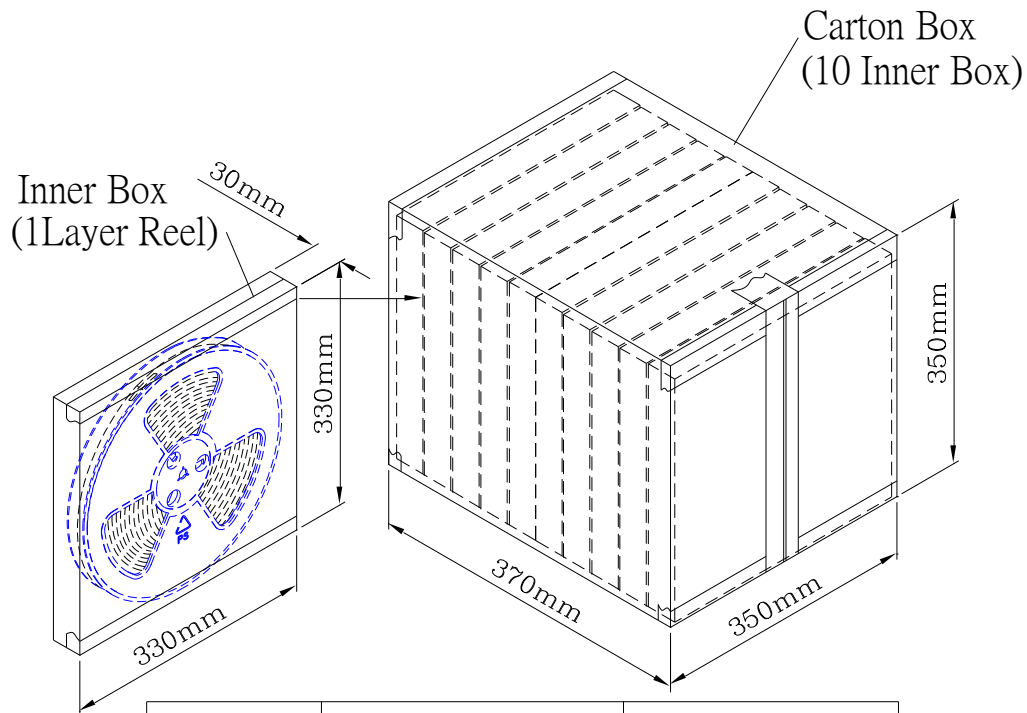
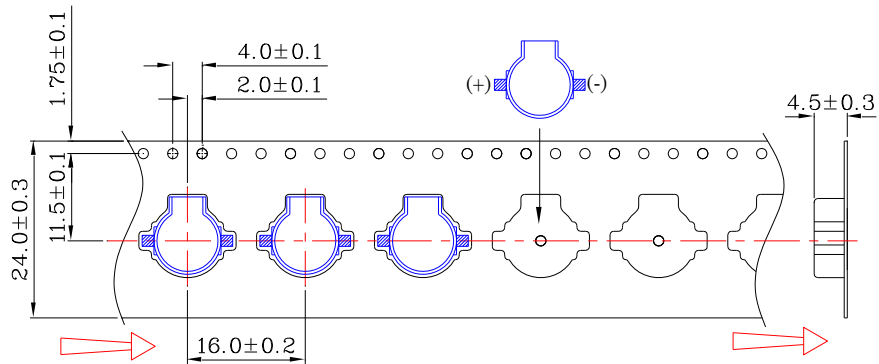
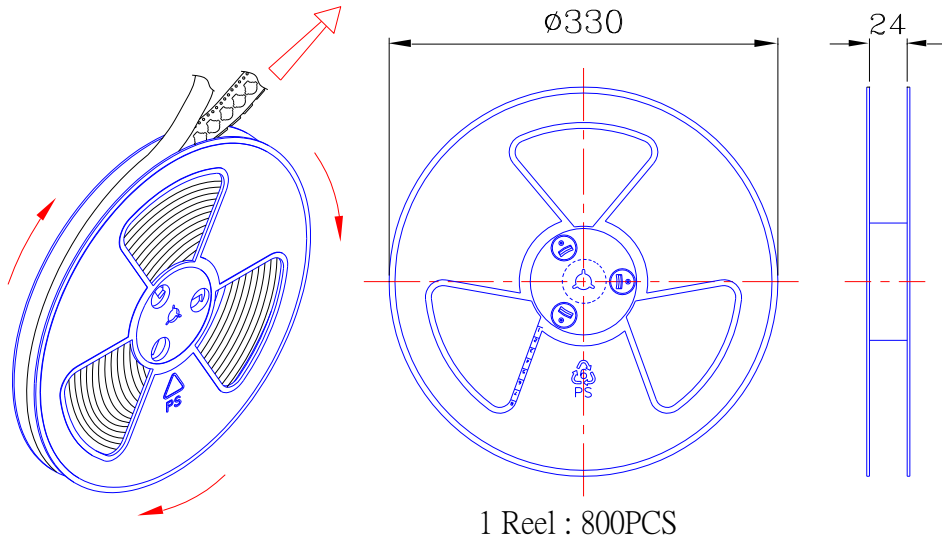
- (2) Manual soldering

Manual soldering temperature 350 °C within 5 sec.

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with 80 °C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
2	Low Temperature Test (Storage)	After being Placed in a chamber with -30 °C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at 40 °C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
4	Temperature Cycle Test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of :</p>  <p>Allowable variation of SPL after test: 10dB.</p>
5	Drop Test	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.
6	Vibration Test	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.
7	Solderability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300 °C for 3 1 seconds . 90% min. lead terminals shall be wet with solder (Except the edge of terminals).
8	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	:	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : +5 ~ +35°C	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2°C	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar



Inner Box	330mmx330mmx30mm	1x800PCS=800PCS
Carton Box	350mmx350mmx370mm	10x800PCS=8,000PCS