

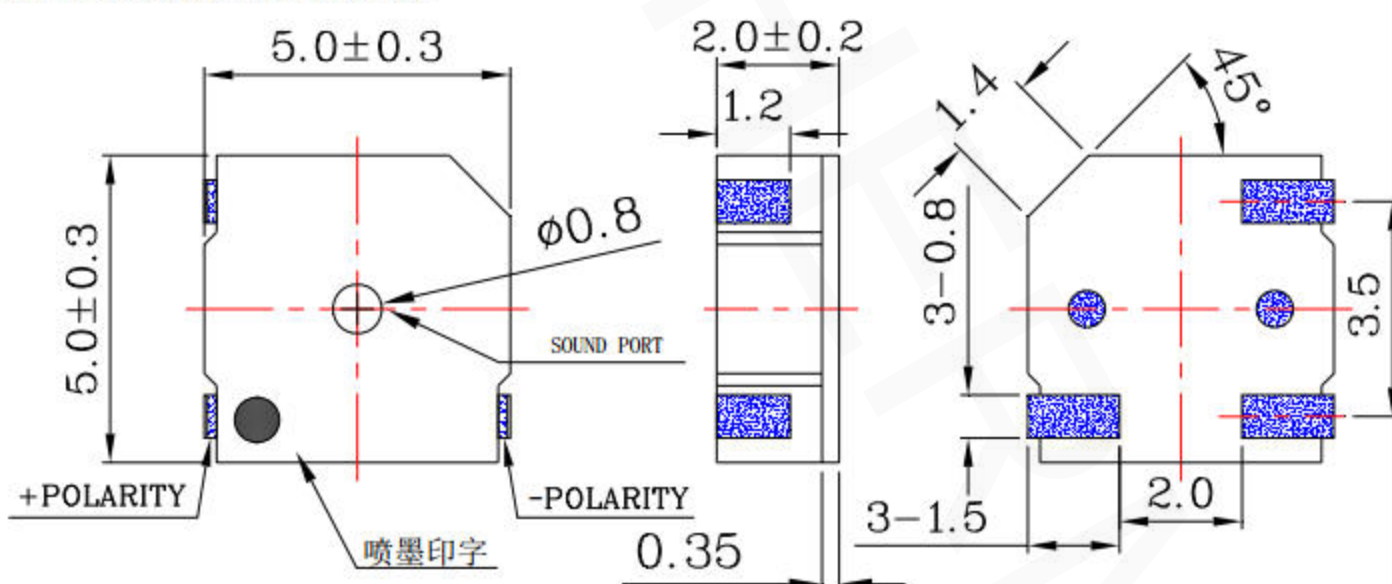
A. SCOPE

This specification applies magnetic buzzer, **BUZ-CET-0502-3.0-4.0.**

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	4000	Vo-p=1/2duty , square wave
2	Operating Voltage	Vo-p	2 ~ 4	
3	Rated Voltage	Vo-p	3	
4	Current Consumption	mA	MAX. 110	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 75	at 10cm at Rated Voltage
6	Coil Resistance	Ω	12 $\pm$ 3	
7	Operating Temperature	$^{\circ}\text{C}$	-20 ~ +70	
8	Storage Temperature	$^{\circ}\text{C}$	-30 ~ +80	
9	Dimension	mm	5.0 x 5.0 x H2.0	See appearance drawing
10	Weight (MAX)	gram	0.1	
11	Housing Material		LCP(Black)	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING



Tol : ± 0.3

Unit: mm

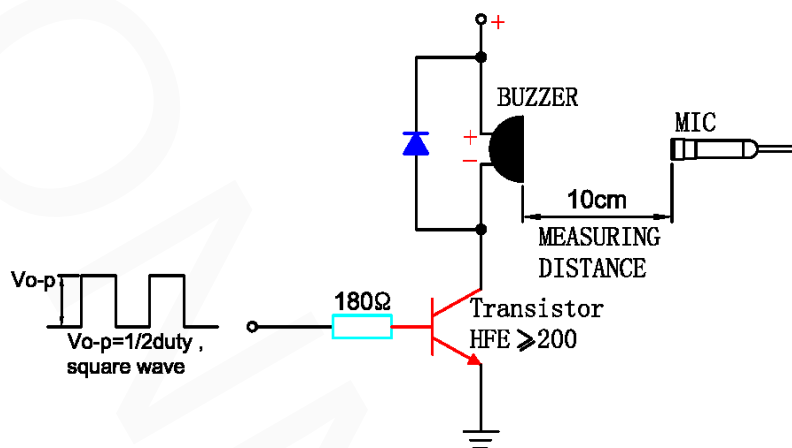
D.TESTING METHOD

Standard Measurement conditions

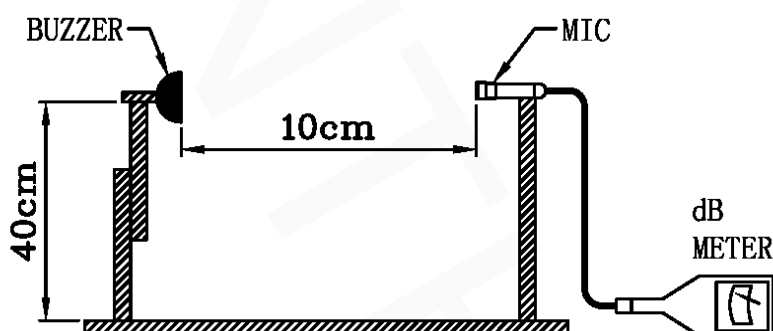
Temperature: $25\pm 2^{\circ}\text{C}$ Humidity:45-65%

Acoustic Characteristics:

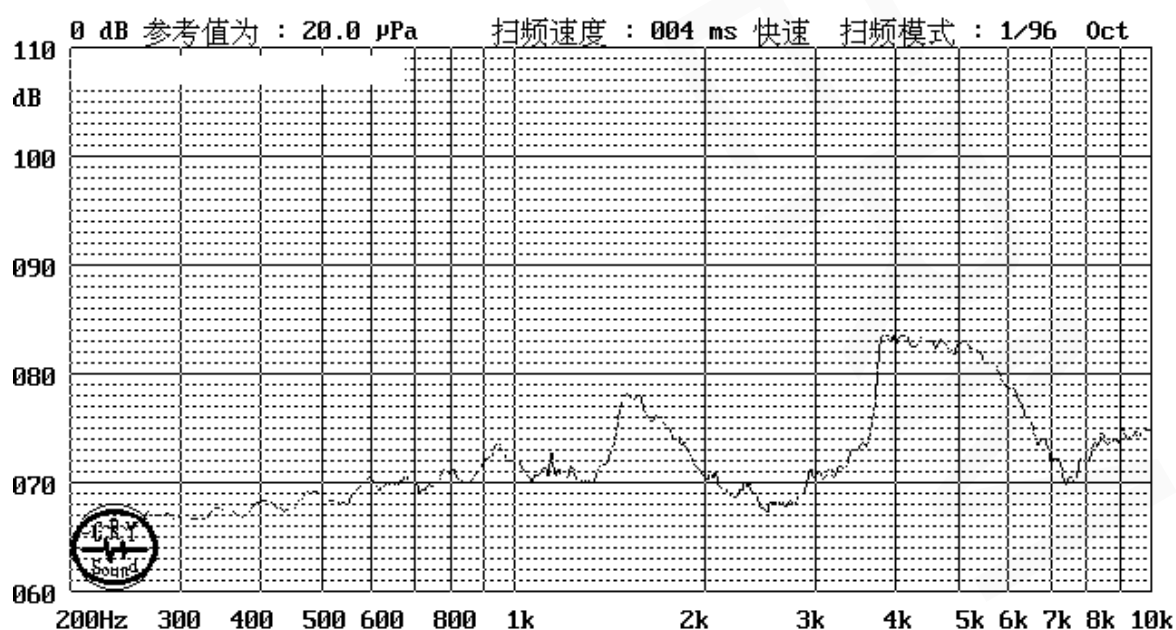
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



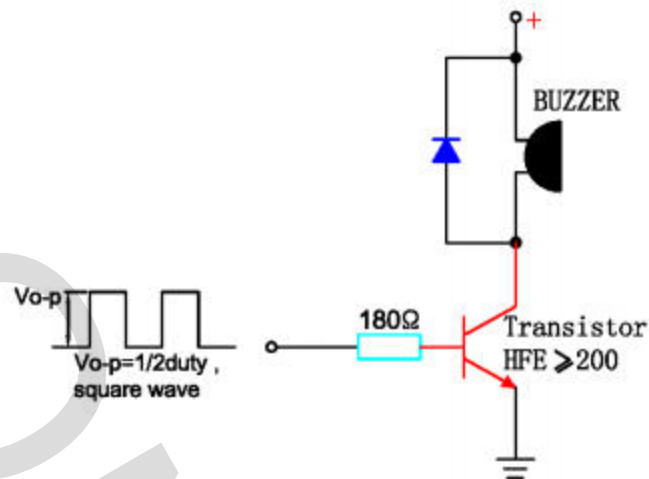
In the measuring test, buzzer is placed as follows:



E. Typical Frequency Response Curve



F. Recommend Driving Circuit

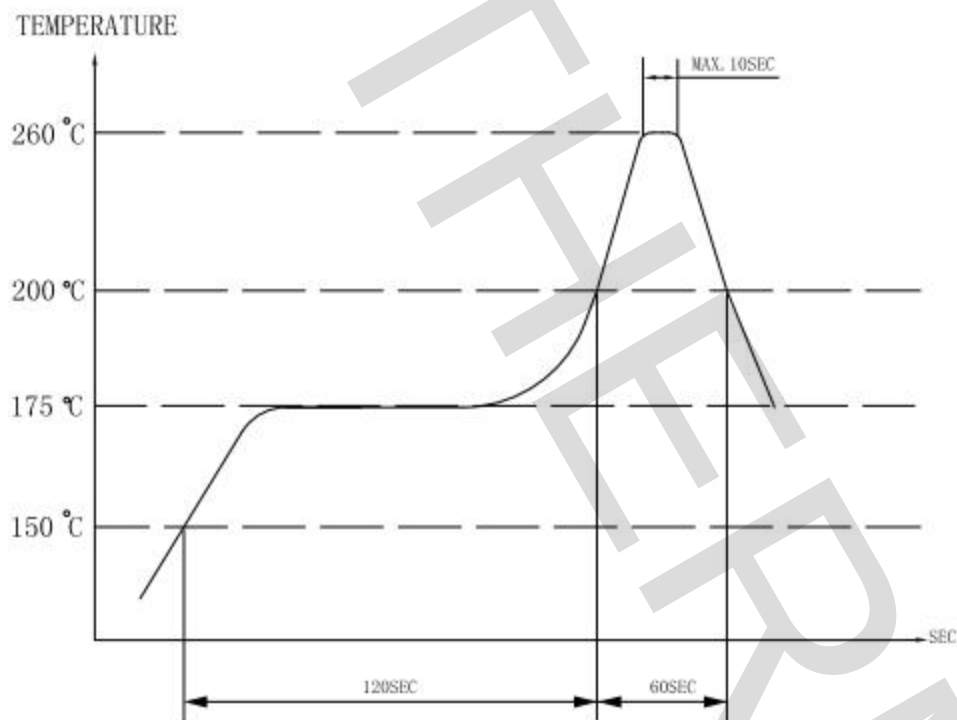


The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

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.



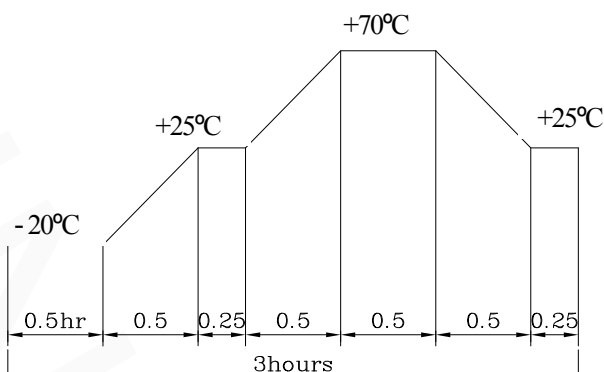
Heat resistant line

(Used when heat resistant reliability test is performed)

- (2) Manual soldering

Manual soldering temperature 350 $^{\circ}\text{C}$ within 5 sec.

H. RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with $80\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
2	Low Temperature Test (Storage)	After being Placed in a chamber with $-30\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at $40\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
4	Temperature Cycle Test	The part shall be subjected to 5 cycles. One cycle shall be consist of :  The diagram shows a temperature cycle profile over 3 hours. It starts at -20°C for 0.5 hr, then ramps up to $+25^{\circ}\text{C}$ in 0.5 hr, holds at $+25^{\circ}\text{C}$ for 0.25 hr, ramps down to $+70^{\circ}\text{C}$ in 0.5 hr, holds at $+70^{\circ}\text{C}$ for 0.5 hr, ramps down to $+25^{\circ}\text{C}$ in 0.5 hr, and holds at $+25^{\circ}\text{C}$ for 0.25 hr. The total duration is 3 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
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: $\pm 10\text{dB}$.
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: $\pm 10\text{dB}$.
7	Solderability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+300\pm 5^{\circ}\text{C}$ 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 : $+5 \sim +35^{\circ}\text{C}$	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : $+5 \sim +35^{\circ}\text{C}$	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : $+25 \pm 2^{\circ}\text{C}$	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : $+25 \pm 2^{\circ}\text{C}$	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar

I. PACKING STANDARD

