SANCO ELECTRONICS CO., LTD.
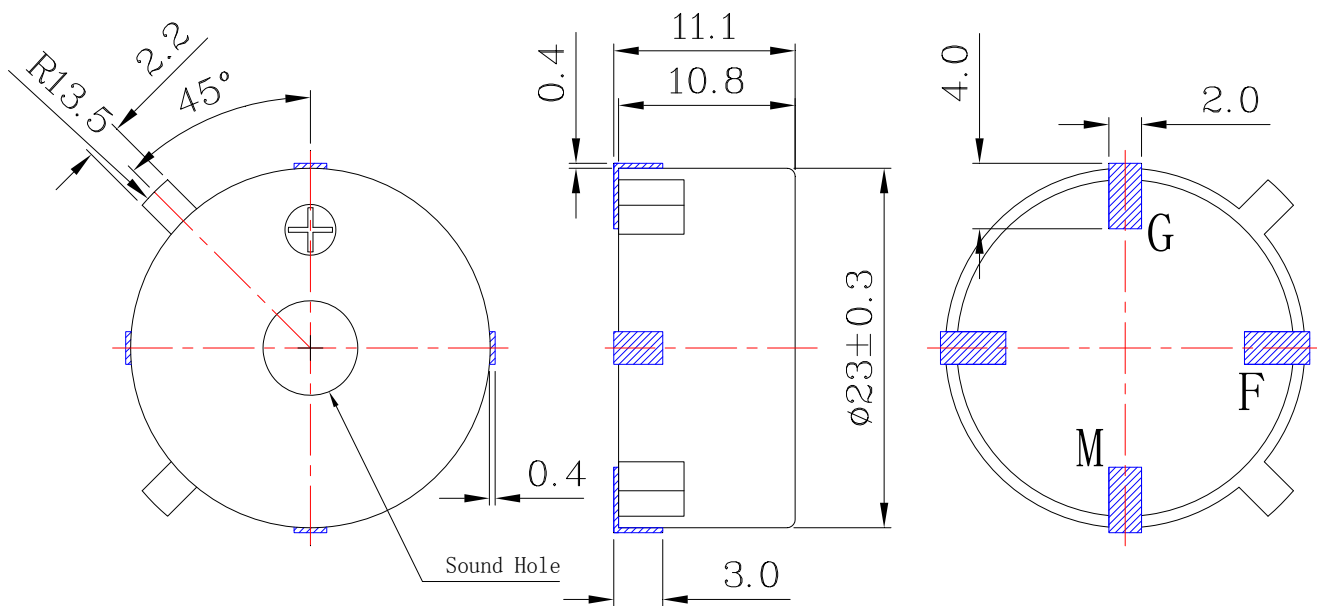
A. SCOPE

This specification applies Piezo buzzer, **SPT3-2311A-09033K**

B. SPECIFICATION

| No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	KHz	3.3 ± 0.5	
2	Operating Voltage	V$_{DC}$	7 ~ 15	
3	Rated Voltage	V$_{DC}$	9	
4	Current Consumption	mA	MAX. 10	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 105	at 10cm at Rated Voltage
6	Tone Nature		Constant	
7	Operating Temperature	℃	-30~ +85	
8	Storage Temperature	℃	-40 ~ +90	
9	Dimension	mm	Φ23x H11.1	See appearance drawing
10	Weight (MAX)	gram	4.0	
11	Housing Material		PPS(Black)	
12	Leading Pin		BRASS	See appearance drawing
13	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING

Sound Hole

Tol : ± 0.5   Unit: mm

D.TESTING METHOD

Standard Measurement conditions
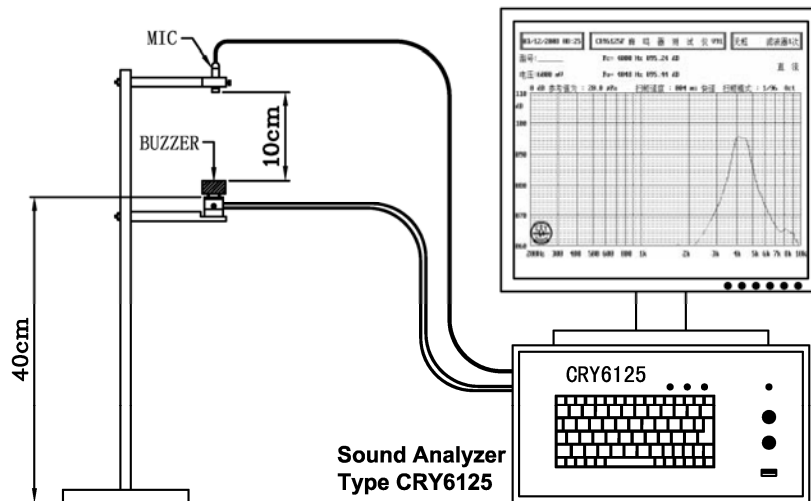
Temperature:25±2℃   Humidity:45-65%
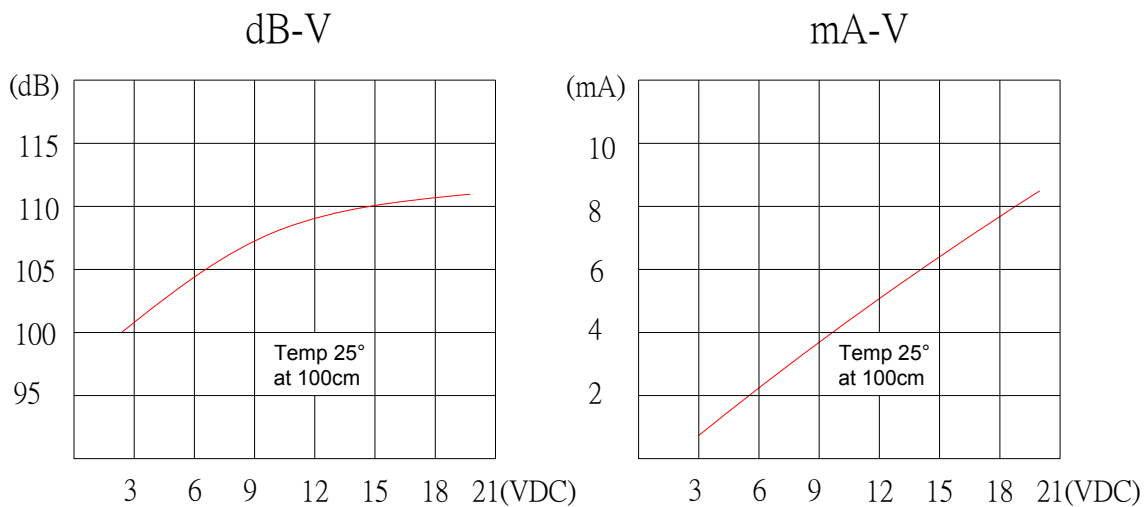
Acoustic Characteristics:

The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below
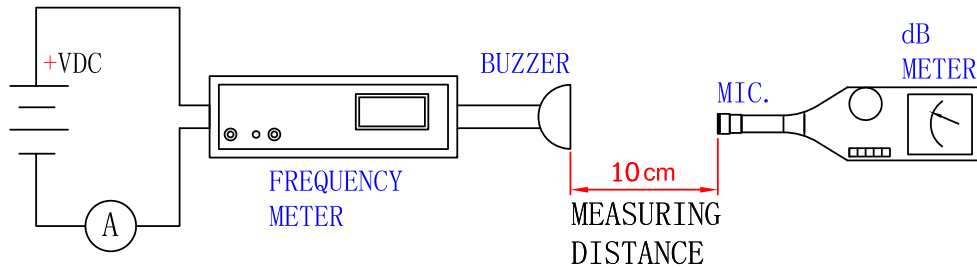
In the measuring test, buzzer is placed as follows:

Sound Analyzer
Type CRY6125

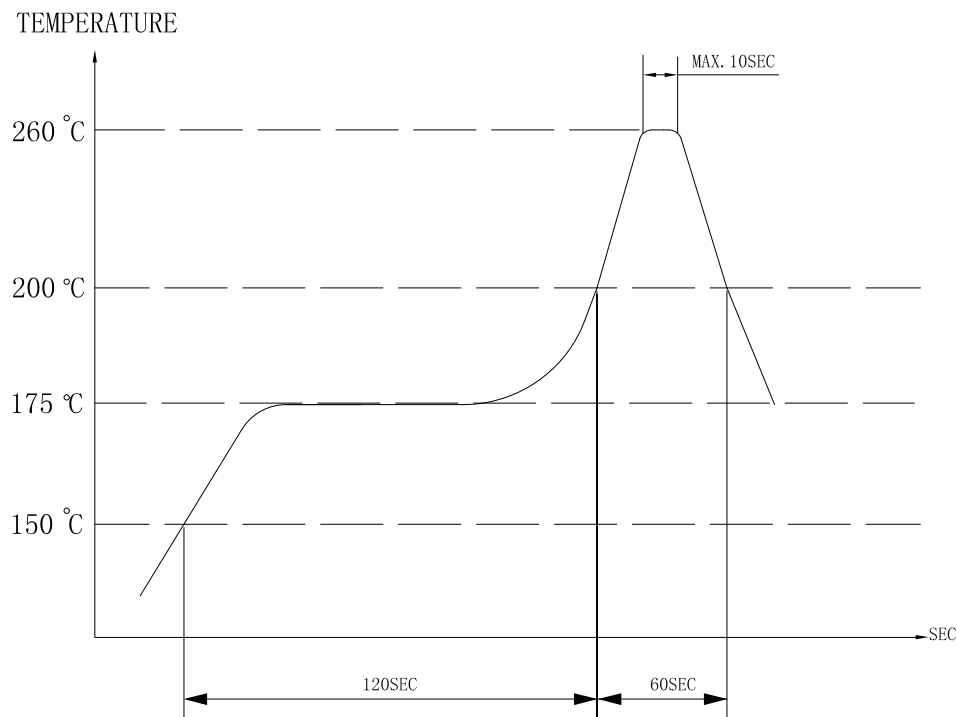# E. VOLTAGE / CURRENT / SOUND PRESSURE CHARACTERISTICS

dB-V

mA-V

F. 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.
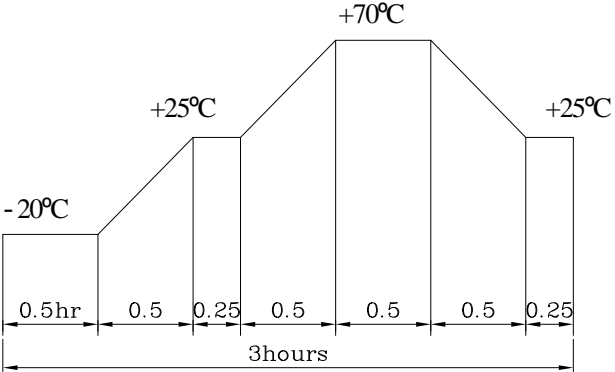
TEMPERATURE

MAX. 10SEC

260 ℃

200 ℃

175 ℃

150 ℃

SEC

120SEC

60SEC

Heat resistant line
(Used when heat resistant reliability test is performed)
(2)Manual soldering
 Manual soldering temperature 350 ℃ within 5 sec.

G. RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with 80□2℃ 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□2℃ 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□2℃ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: □10dB.
4	Temperature Cycle Test	The part shall be subjected to 5 cycles. One cycle shall be consist of： +70℃ +25℃ +25℃ -20℃ 0.5hr 0.5 0.25 0.5 0.5 0.5 0.25 3hours Allowable variation of SPL after test: □10dB.
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□5℃ 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℃	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : +5 ~ +35℃	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2℃	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2℃	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar

H. PACKING STANDARD

Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number, quantity and outgoing inspection number. There shall be no mechanical damage on products during transportation and/or in storage.