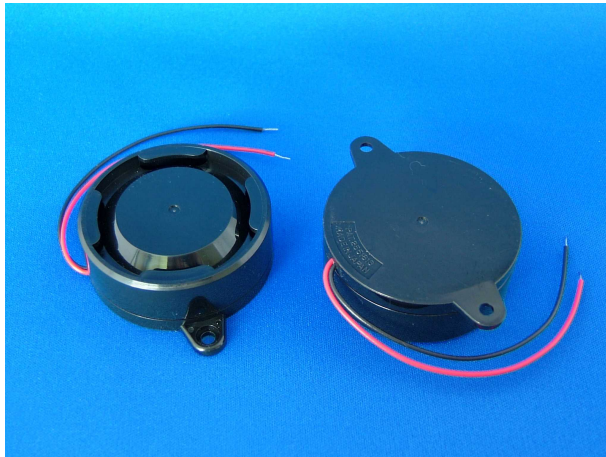


# Large Sound Volume Buzzer

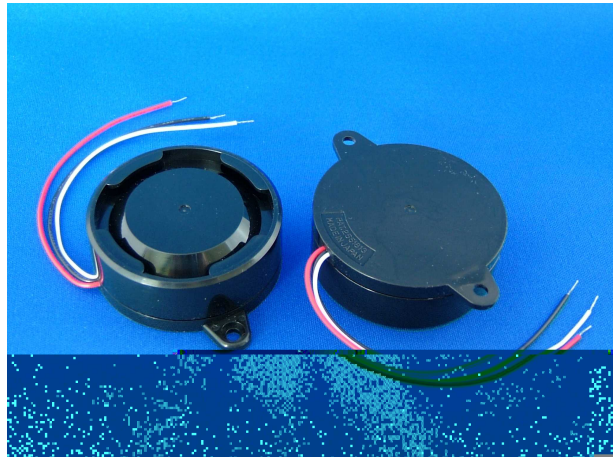
*BS-50HCS, BS-50HC*

High sound volume unit emits high sound volume of around 100dB. Moreover, it is water proof, small as a cigarette package and inexpensive, thus it being best-suited to alarm devices for preventing crimes for use in safes, automatic vending machines and the like.

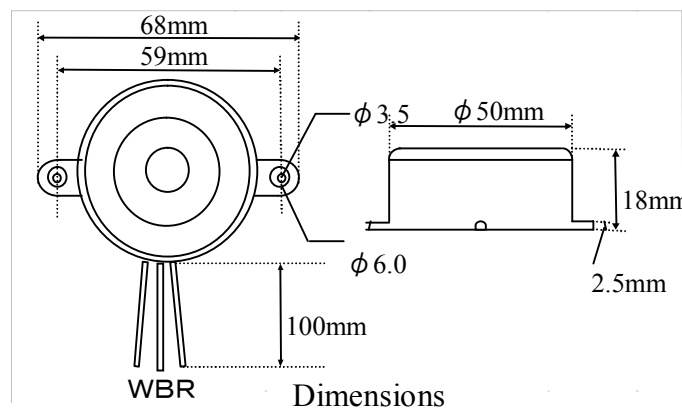
**BS-50HCS**



**BS-50HC**



	BS-50HCS	BS-50HC
Sound Pressure Level	100+/-5dB/m (@12V)	110+/-5dB/m (@12V)
Oscillating Frequency	2~4kHz	2~4kHz
Current Consumption	<25mA	<150mA
Operating Voltage	+3VDC ~ +12VDC	+3VDC ~ +12VDC
Operating Temperature	-20°C~+80°C	-20°C~+60°C
Case Material	Heat Resistant ABS	Heat Resistant ABS
Weight	Approx. 30g	Approx. 30g
Others		Controllable by CMOS



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August 18<sup>th</sup>, 2011

# Specification Sheet

Item Large Sound Buzzer

Item No. BS-50HC

Please sign here when you accept this document.

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**0 History of revision**

**Table 0.1 History of revision**

No.	Description of Revision	Reason of Revision	Date	Rvsd	Appd
0	Original		2010.04.16	Fujimura	Tsutsumi
1		Attach reliability data	2011.08.18	Ezaki	Tsutsumi

## 1 Scope of application

This specification defines a large sound buzzer of BS-50HC.

## 2 Item name and item number

### 2.1 Item name

Large sound buzzer

### 2.2 Item number

BS-50HC

## 3 Terminals of BS-50HC

Table 3.1 Description of terminals

Cable color	Function	Remarks
Red	Input voltage (Vin)	0~+12V
White	Control	0~+12V、ON: less than $V_{in} - 2(V)$ 、OFF: more than $V_{in} - 0.5V$ ex. When input 12V, less than 10V turns it ON and more than 11.5V turns it OFF.
Black	GND	Base line for input and control voltage

## 4 Performance

### 4.1 Appearance

There should not have a big scratch, burr and dirt on the buzzer case.

### 4.2 Dimensions

Please see Fig. 9.1.

### 4.3 Weight

25g (typ.)

### 4.4 Measurement environment

Temperature  $25 \pm 5^{\circ}\text{C}$ 、non condensing

### 4.5 Electric property

Table 4.1 Electric property

Item	Specification	Condition
1 Input voltage range	+3.0 ~ +12.0 V	DC voltage
2 Sound pressure	110 $\pm$ 5 dB	Peak value of when 12V input, at 1m
3 Oscillating freq.	2 ~ 4 kHz	Sweeping range
4 Current	150mA 以下	Average current in operating at 12V
5 Operating temp.	-20 ~ +60 $^{\circ}\text{C}$	
6 Storage temp.	-30 ~ +80 $^{\circ}\text{C}$	
7 Humidity in operation and storage	20 ~ 90 %	Non condensing

\* Sound pressure and current data are measured by a measurement system shown in 9.2 on page 7.

## 5 Outgoing inspection

### 5.1 Method

It is define by JIS Z-9015, one time, standard sampling inspection for each production lot.

### 5.2 Item of the inspectionItem, and level, AQL

Table 5.1 Outgoing inspection

	Item	Method	Level	AQL
1	Appearance	Visual	S-3	0.65%
2	Sound pressure	Shown in Fig.9.2	S-3	0.65%
3	Current	Shown in Fig.9.2	S-3	0.65%
4	Dimensions	Caliper	n=5	(0, 1) Judge

## 6 Package

A carton case, 27.5 x 37 x 32 (cm) have 5 inner boxes and each inner box packs 60 pcs of BS-50HC. 300 pcs of BS-50HC is packed in the carton case.

## 7 Others

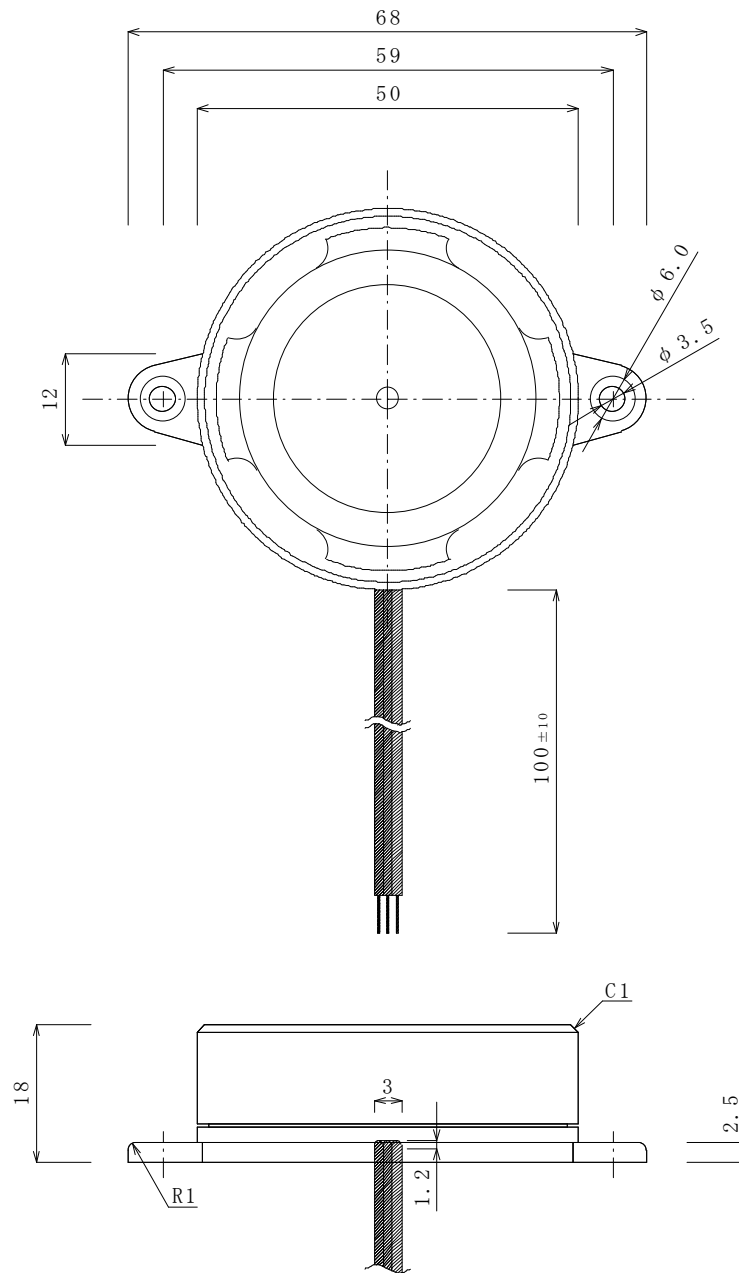
- 1) This item is able to use under a rule of RoHS.
- 2) Halogen-free material is used.
- 3) Ozone depleting substance is not used in the manufacturing process.

## 8 Operating precautions

- 1) Please don't pull the three lead wires.
- 2) Please don't drop this item.
- 3) If this item is used under conditions as shown below, please evaluate it a lot with care.  
A long time ①direct sunlight, ②vibration, ③Water exposure
- 4) Please don't use this item where solvent gas or corrosive gas (H<sub>2</sub>S, etc.) might happen.
- 5) There is a possibility to increase air temperature in a sealed or tight space that has this item inside because it generates heat during the operation. Please confirm if the air temperature around this item is in the range of our specification (-20 ~ +60 °C) under the actual condition of use.

## 9 Technical appendix

### 9.1 Appearance and dimensions



Tolerance : less than 10mm  $\pm$  0.3mm, 10mm - 100mm  $\pm$  0.5mm

Material of the plastic case : ABS plastic ( Black color)

Lead wires : AWG28 100mm ( Red, Black, White)

Fig. 9.1 Appearance and dimensions

## 9.2 Measurement system for electric property

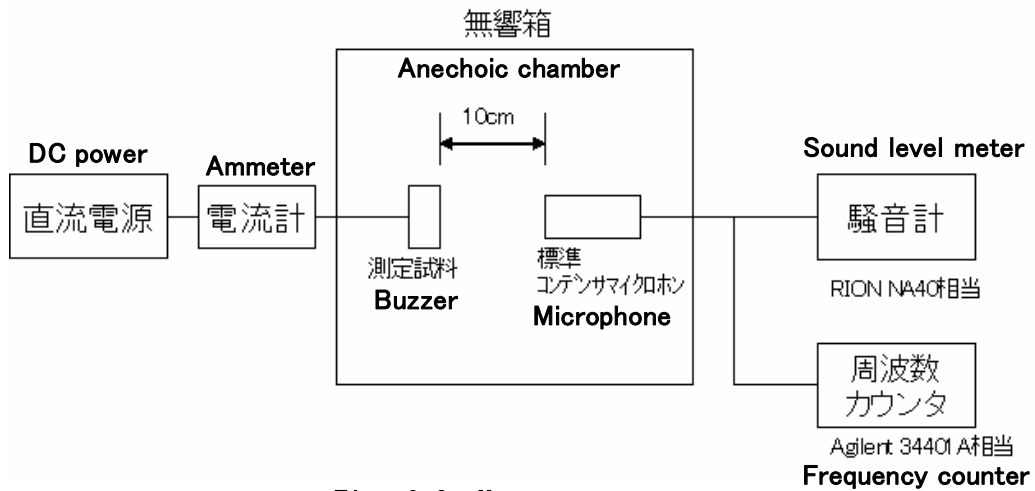


Fig. 9.2 Measurement system

## 9.3 Referential data and Reliability data

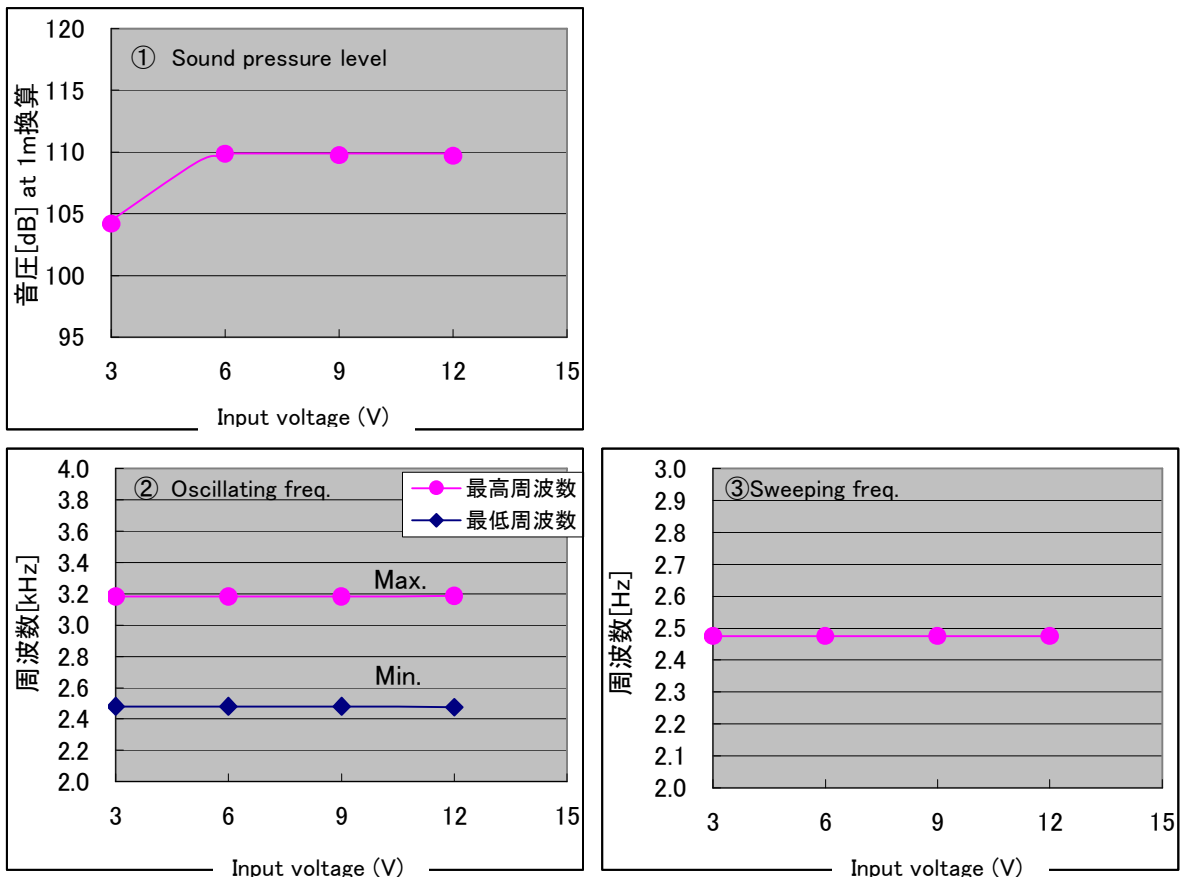


Fig. 9.3 Referential data



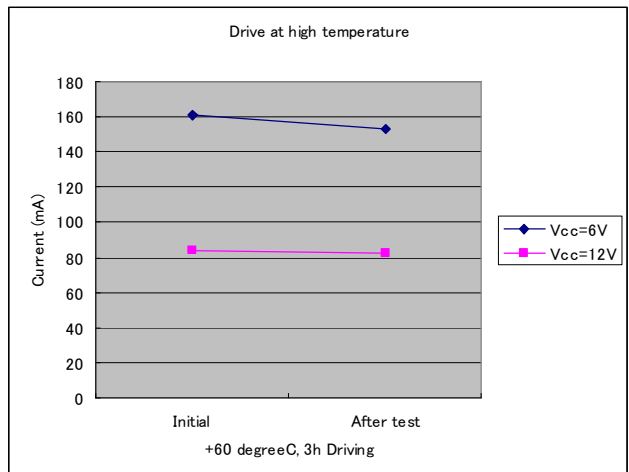
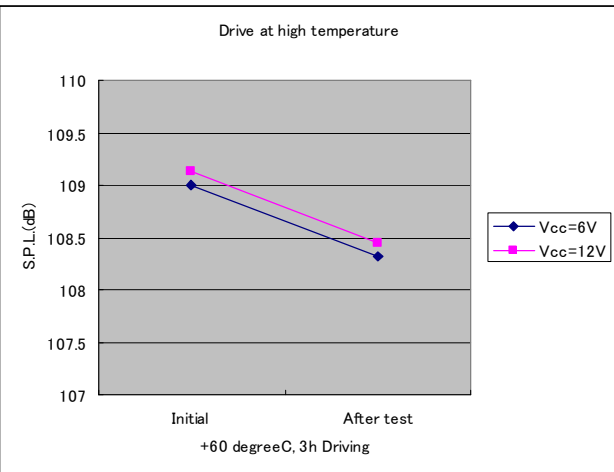
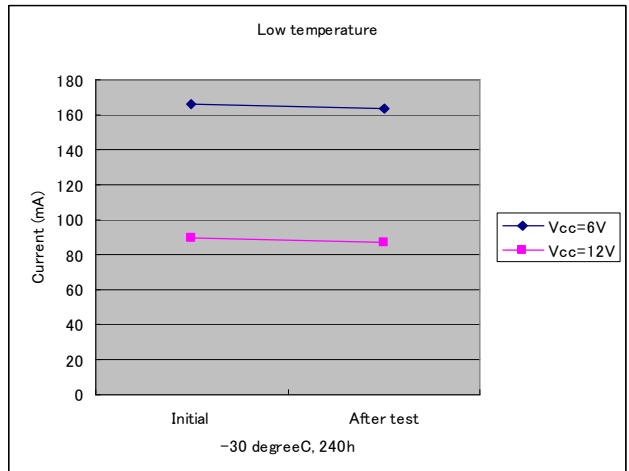
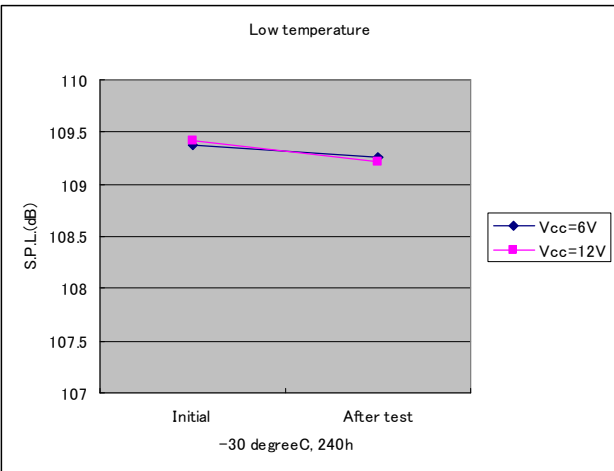
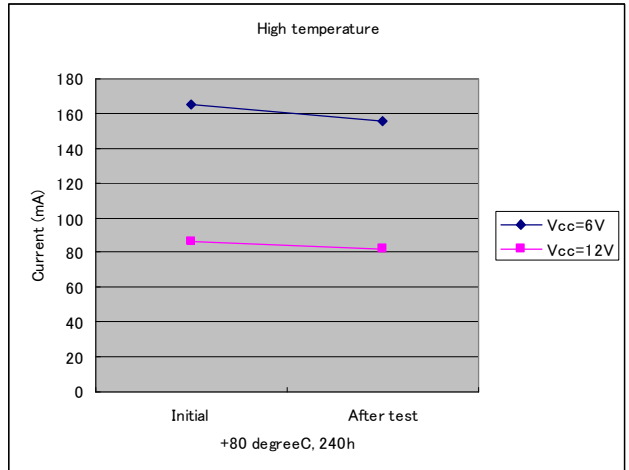
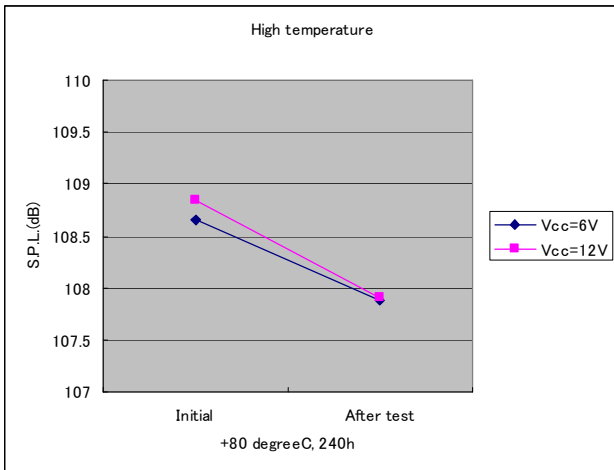


Fig. 9.4 Reliability data