

Date : 9. July. 2009

Drawing No . : A S - A 5 0 3 1 - 1

Messrs. Transtekne International Inc.

A P P R O V A L  
S H E E T

Model Name : Piezoelectric Buzzer With Built-in Circuit

Parts No : CPM121A1AW PT- S 01

Please sign one copy and return it to us by mail;  
keep the other copy for your files.

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NIHON CERATEC CO.,LTD

PIEZO ELECTRIC DIVISION

Approved	Checked	Drawing

## 1. Subject

This specification will apply to Piezoelectric Buzzer  
CPM121A 1 AWPT- S 01

## 2. Purchaser

2.1 Code No. \_\_\_\_\_

2.2 Part No. \_\_\_\_\_

## 3. Supplier

3.1 Code No. \_\_\_\_\_

3.2 Part No. CPM121A1AWPT - S01

## 4. Scope

### 4.1 Appearance.Dimensions

As per attached drawing No, AS-A5031-1 7 / 7

### 4.2 Test Conditions

All measurements shall be made ambient temperature of  $25 \pm 5$   
and may also be permissible in between 5 - 35 relative humidity  
65% unless otherwise specified herein.

### 4.3 Electrical Characteristics

(1)Sound Pressure Level (SPL) : 81 dB min.(at 12VDC)

(2)Oscillating Frequency (Fosc) 4.2 ± 0.5 kHz

(3)Current Consuming : 8 mA max.

(4)Operating Voltage : 3 ~ 15 VDC

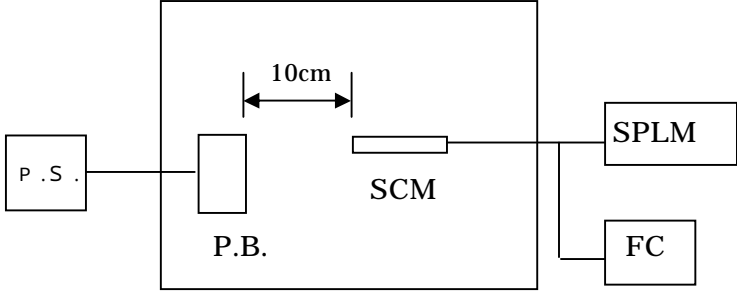
(5)Operating Temperature Range: -20 ~ +70

(6)Storage Temperature : -30 ~ +80

(7)Operating Humidity : 80%RH max. (at 40 , No condence)

## 5. Test Method

### 5.1 Electrical Characteristics test method

item	condition
5.1.1  Sound Pressure level & Oscillating Frequency	<div style="text-align: center;"> <p>Anechoic chamber</p>  </div> <p>P.S. ; Signal Generator.            P.B. ; Piezo Electric Buzzer            SCM; Standard condenser microphone            SPLM; Sound pressure Level Meter RION NA-40            F.C. ; Frequency Counter</p>

## 6. Evaluation Testing

Test is done with JIS Z-9015-sampling plan for inspection by lot tolerance percent defective method.

	Item	method	level	A Q L
1	Appearance, Configuration	visual	S-3	0.65%
2	Sound pressure Level	item 5.1	S-3	0.65%
3	Size	direct	n=5	(0.1) limit
4	Oscillating Frequency	item 5.1	S-3	0.65%

## 7. Packing:

Units Shall be packed for shipping and storage so as not to be damaged, identifying by labeling with manufacturer ' s name, part No, lot No, and quantity.

## 8 Note

### 8.1 Caution in case of mounting and handling.

- (1) To prevent malfunctions, install the buzzer so that it does not come into contact with other components on its side or top surface.
- (2) There should not be any obstacle within 15mm from the top of the buzzer. Also , There should not be covered the sound opening with an adhesive tape or the like. If the sound hole is blocked, the buzzer may habit abnormal oscillation or stop functioning.
- (3) The buzzer can not be soldered by flow and reflow. In case of flow and reflow soldering, the case may be deformed.
- (4) Do not use the wrong polarity. If the buzzer is improperly connected. the internal circuit may break down when electricity is applied.
- (5) Use the buzzer within the operation voltage range. A higher voltage may amage the diaphragm and other components or cause a fire. With a lower voltage, the sound may not be produced.
- (6) Use a low-impedance (not more than 100 )power supply for the buzzer. otherwise, the buzzer may exhibit abnormal oscillation or stop functioning.
- (7) The buzzer is built in complete circuit.; so there is no need for another circuit for generating sound, Do not interpose a resistance in series between the buzzer and the power supply, because this will produce irregular oscillation. When resistor is necessary to control sound volume, use capacitor(1  $\mu$  F) parallel with the buzzer together.
- (8) Do not apply strong force to the pins before they are soldered. If the pins are bent or cut due to excessive force, the buzzer may not generate sound.



## 8.2 Caution in case of storing

To prevent deterioration and breakdowns, do not store units in the following places:

Dusty places

Hot or frosty places.

Areas exposed to sunlight

Places with leaking or infiltrating water

Humid places

Areas exposed to solvents or their vapor

Areas exposed to corrosive gases, such as H<sub>2</sub>S

## 8.3 Other Precautions

(1) Do not disassemble, repair or modify the buzzer, to maintain the initial performance and safety standard of it.

(2) The products contain the lead so that the disposal of industrial wastes has to be required.

## 9. General requirements :

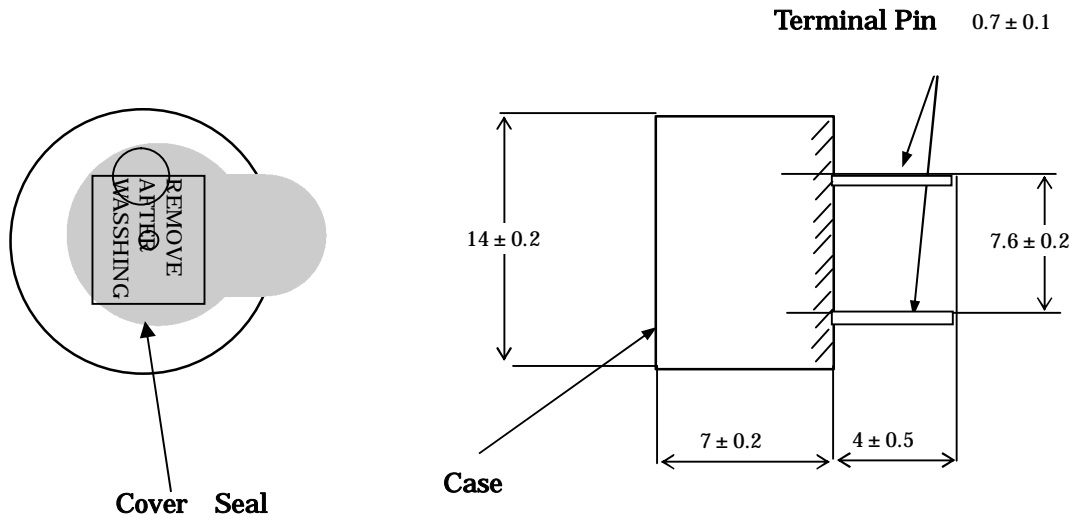
(1) In the case of different interpretation in this specification, discussions shall be made to agree each other.

(2) With the worrying which exerts an influence on the efficiency being under for the material and the process change which is thought of, we make to cope after contacting(in the eye place of 2 months before) beforehand to you.

(3) The buzzer is RoH S compliant.

Appearance and dimensions(unit: mm)

Part No. CPM121A1AWP - S01



(1) Material

Case : PPO(Black)

Terminal : Brass (Sn/Cu Plated)

Potting Resin: Epoxy resin (Black)

Polarity distinction

Polarity is indicated at the surface of the case. (+)

(2) Appearance

There are no remarkable dirt, crack and crack detrimental to a performance.