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# SPECIFICATION FOR APPROVAL

|                   |                           |
|-------------------|---------------------------|
| Product           | PIEZO BUZZER(SELF DRIVER) |
| Part No.          | AZ-1540S-P                |
| Customer Approval |                           |

| Approved By | Checked By | Made By |
|-------------|------------|---------|
|             |            |         |



**A & B Components**

**<http://www.speaker-tw.com>**

# 1.Specifications

AZ-1540S-P

| Items |                     | Units  | Specifications | Conditions       |
|-------|---------------------|--------|----------------|------------------|
| 01    | Rated Voltage       | VDC    | 12             |                  |
| 02    | Operating Voltage   | VDC    | 6 ~ 18         |                  |
| 03    | Rated Current (Max) | mA     | 30             | At 12 VDC        |
| 04    | Min Sound Output    | dBA    | 90             | At 12 VDC / 10cm |
| 05    | Resonant Frequency  | Hz     | 4000±500       |                  |
| 06    | Tone Nature         | Single |                |                  |
| 07    | Operating Temp.     | °C     | -30 ~ +75      |                  |
| 08    | Storage Temp.       | °C     | -40 ~ +85      |                  |
| 09    | Weight              | g      | 2.5            |                  |

## 2.Measuring Method

### Test Condition

#### STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

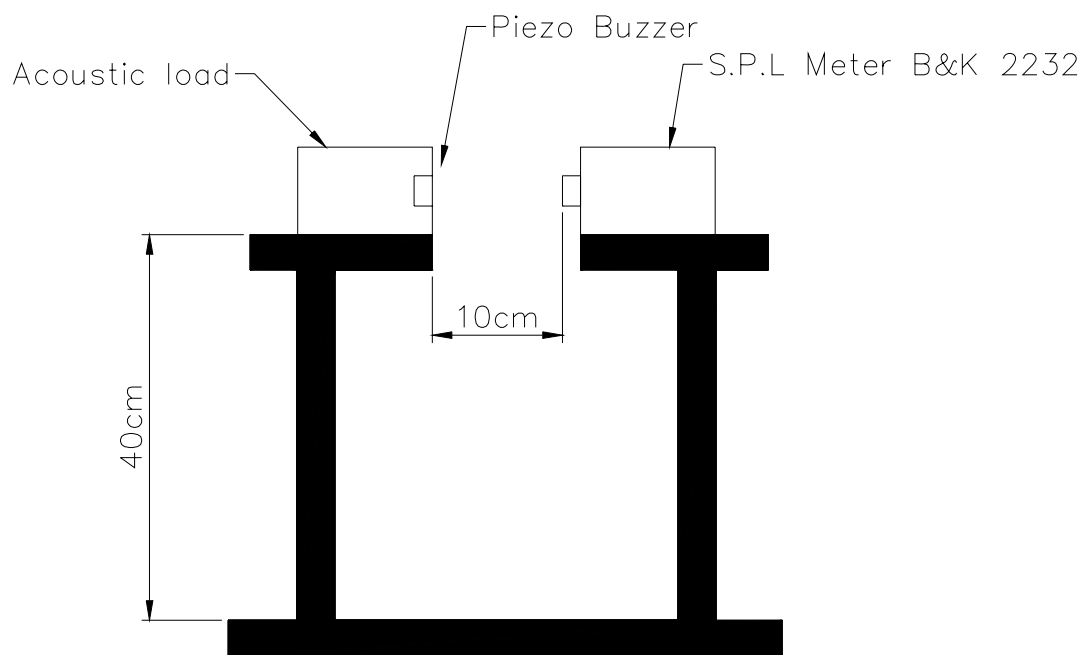
#### JUDGEMENT

Temperature : 20±3°C

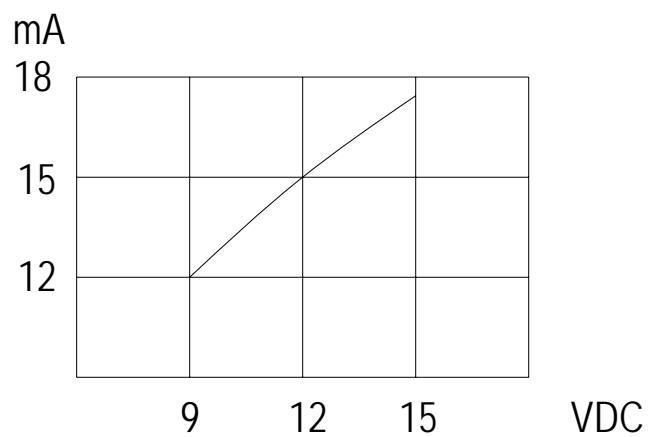
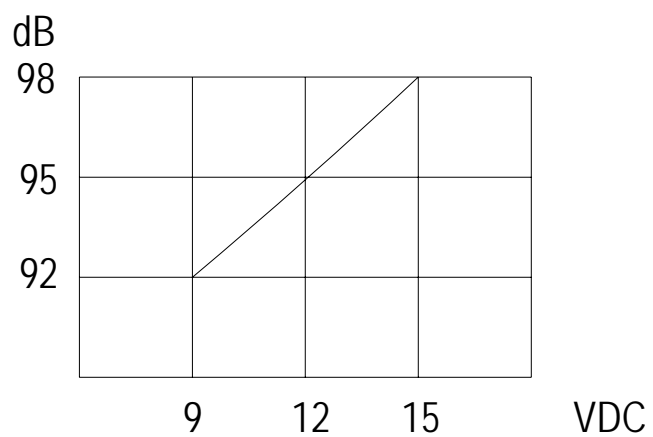
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

## Standard Test Fixture



## Frequency Response Curve

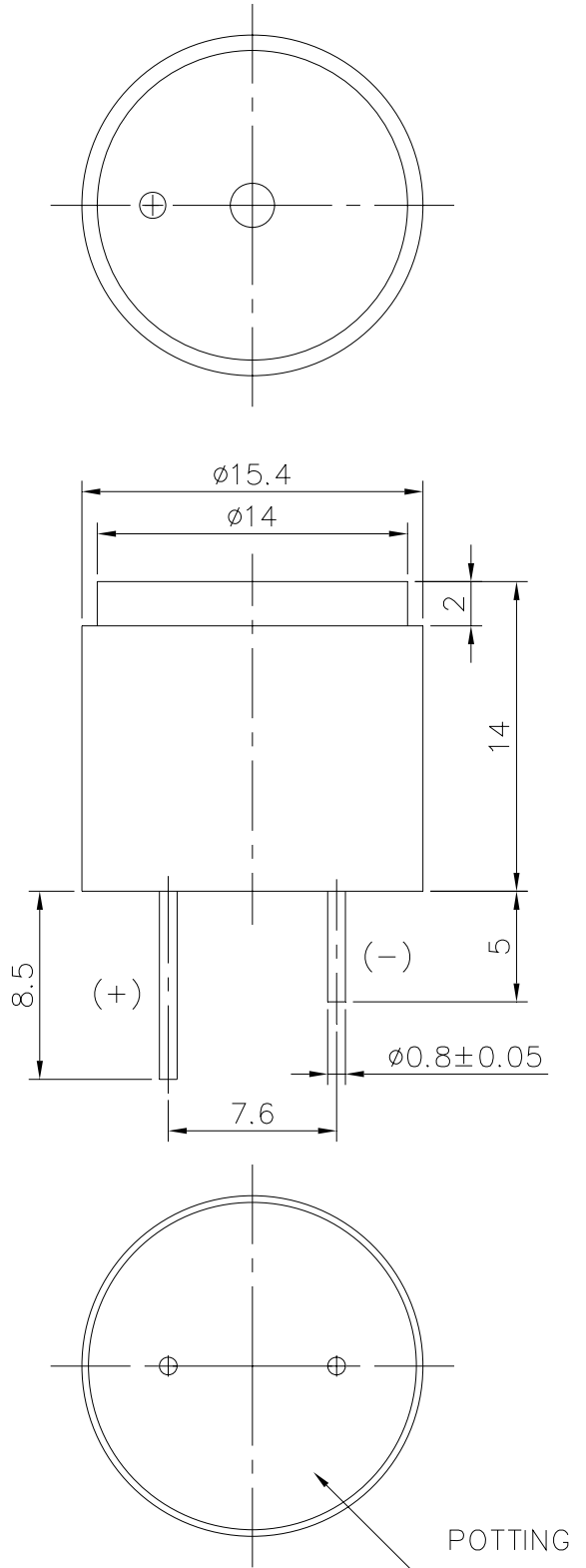


REV NO.

REVISION NOTE

APPROVAL

DATE



TITLE: *PIEZO BUZZER INDICATOR*

DRAWN: *Richard* 01/03/2007

SCALE: 3:1

SHEET: 1 : 1

PART NO. *AZ-1540S-P*

DESIGNED: *R & D DEP.*

UNITS: *mm*

DWG NO. *DTP-1011*

1

CHECKED:

TOLERANCE  $\pm 0.5$

APPROVAL:

UNLESS OTHERWISE SPECIFIED:

MATERIAL: *ABS*

ONE PLACE DECIMAL  $\pm$  \*\*\*

TWO PLACE DECIMAL  $\pm$  \*\*\*

THREE PLACE DECIMAL  $\pm$  \*\*\*

*A & B Components*

## 4.RELIABILITY TEST

| Item  |                        | Test conditions   | Evaluation standard   |       |      |       |       |       |  |
|-------|------------------------|---|---|-------|------|-------|-------|-------|--|
| 01    | High temp.Storage life | The part shall be capable of withstanding a storage Temperature of 85°C for 96 hours.   | After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L S.P.L shall be 74dB or more. |       |      |       |       |       |  |
| 02    | Low temp.Storage life  | The part shall be capable of withstanding a storage Temperature of -40°C for 96 hours.  |   |       |      |       |       |       |  |
| 03    | Temp. cycle            | The part shall be subjected 5 cycles. One cycle shall consist of; <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">-40°C</td> <td style="text-align: center;">85°C</td> </tr> <tr> <td style="text-align: center;">30min</td> <td style="text-align: center;">30min</td> </tr> <tr> <td colspan="2" style="text-align: center;">60min</td> </tr> </table> |   | -40°C | 85°C | 30min | 30min | 60min |  |
| -40°C | 85°C                   |   |   |       |      |       |       |       |  |
| 30min | 30min                  |   |   |       |      |       |       |       |  |
| 60min |                        |   |   |       |      |       |       |       |  |
| 04    | Temp./Humidity cycle   | The part shall be subjected with 90~95% R.H at +40°C for 96 hours.  |   |       |      |       |       |       |  |
| 05    | Free drop              | The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times).  |   |       |      |       |       |       |  |
| 06    | Lead Strength          | Pull lead with a force of 10N,on the direction of the lead axis for 10 :10±1 sec  |   |       |      |       |       |       |  |
| 07    | Vibration              | The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3G). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.   |   |       |      |       |       |       |  |

## SOLDERING CONDITION

Recommend using constant branding iron in **30W**, and in temperature range **350±10°C**.

Soldering time **2 seconds**.