



soberton inc.

WT BUZZER

Acoustic Product Specification

Product Number: WT-2512



Release | Revision: C/2018

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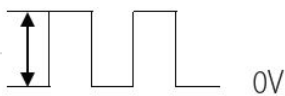
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Specifications

| Item | Unit | Specification | Condition |
|-------------------------------------|------|-----------------------|--|
| Rated Voltage | Vo-p | 12.0 | Vo-p  |
| Operating Voltage | Vo-p | 10.0 ~ 14.0 | |
| Mean Current | mA | 60 Max | At rated voltage 1000Hz, square wave, 1/2 duty |
| Coil Resistance | Ω | 115 ±15% | |
| Sound Output | dB | 85 | At 10cm (A-weight free air), at rated voltage 1000Hz, square wave, 1/2 duty |
| Rated Frequency | Hz | 1000 | |
| Operating Temp | °C | -30 ~ +85 | |
| Storage Temp | °C | -40 ~ +85 | |
| Dimension | mm | ø24.5 x H12.5 | See attached drawing |
| Weight | gram | 10.0 | |
| Material | | PBT (Black) | |
| Terminal | | Pin Type (Plating Sn) | See attached drawing |
| Environmental Protection Regulation | | RoHS | |

Test condition:

Temperature: +25±2 °C Related humidity: 65±5% Air pressure: 86-106KPa

Mechanical Characteristics

| Item | Test condition | Evaluation standard |
|------------------------------|---|--|
| Solderability | Lead terminals are immersed in the solder bath at +250±5°C for 3±1 seconds. | 90% min.lead terminals shall be wet with solder. No interference in operation. |
| Soldering Heat Resistance | The product follows the reflow temperature curve to test its reflow thermal stability. | |
| Terminal Mechanical Strength | The force of 9.8N is applied to each terminal in axial direction for 10 seconds. | No damage and cutting off. |
| 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 axis in each three axes (X,Y,Z). Total 6 hours. | After the test, the part shall meet specifications without any damage in appearance and performance except SPL. The SPL should be in ±10dBA compared with initial one. |
| Drop Test | The part is dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X,Y,Z). Total of 9 times. | |



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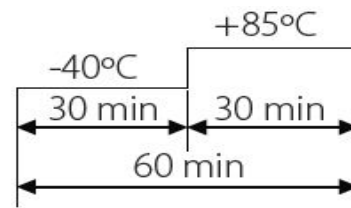
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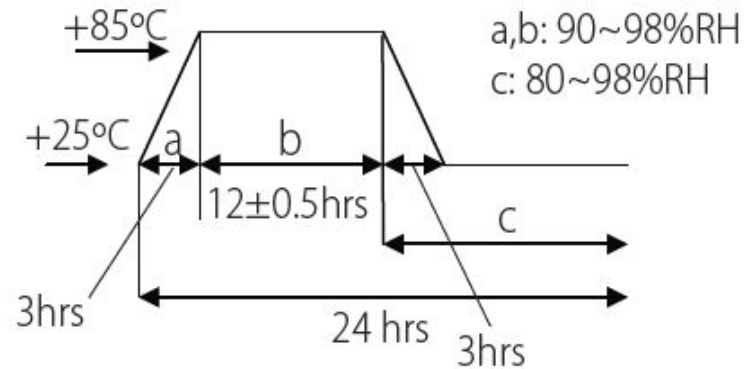
Environment Test

| Item | Test condition | Evaluation standard |
|-----------------|--|--|
| High Temp. Test | The part is placed in a chamber at +85°C for 96 hours. | After the test, the part shall meet specifications without any degradation in appearance and performance except SPL. After 4 hours at +25°C, the SPL should be in ±10dBA compared with initial one. |
| Low Temp. Test | The part is placed in a chamber at -40°C for 96 hours. | |
| Thermal Shock | The part shall be subjected to 10 cycles. Each cycle shall consist of: | |



Temp./Humidity Cycle

The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of:



Reliability Test

| Item | Test condition | Evaluation standard |
|---------------------|---|--|
| Operating Life Test | Ordinary Temperature The part shall be subjected to 96 hours of continuous operation at +25°C±10°C at 12.0V, 1000Hz applied.. | After the test ,the part shall meet specifications without any degradation in appearance and performance except SPL. After 4 hours at +25°C, the SPL should be in ±10dBA compared with initial one. |
| | High Temperature The part shall be subjected to 72 hours of continuous operation at +85°C at 12.0V, 1000Hz applied. | |
| | Low Temperature The part shall be subjected to 72 hours of continuous operation at -30°C at 12.0V, 1000Hz applied. | |

Standard test condition:

- a) Temperature: +5~+35°C
- b) Humidity: 45~85%
- c) Pressure: 86 ~ 106KPa



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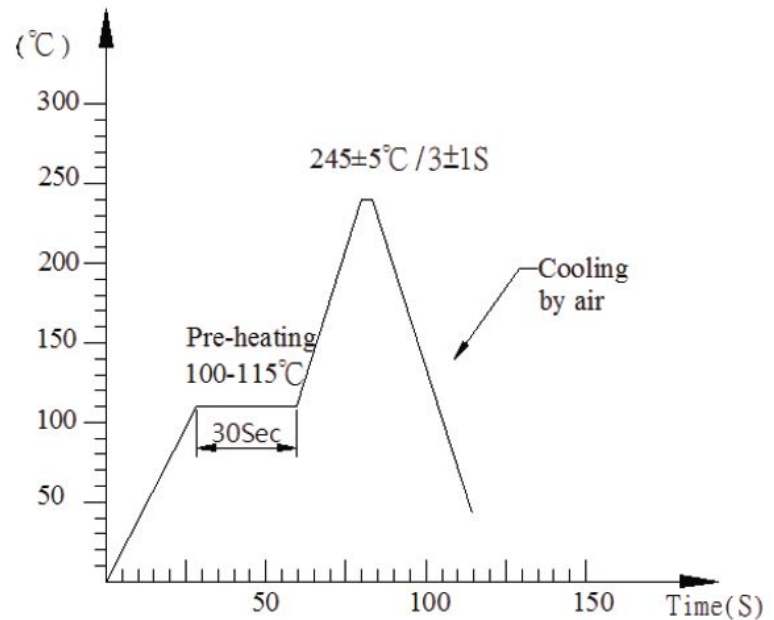
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Recommended Wave Soldering Temperature Curve

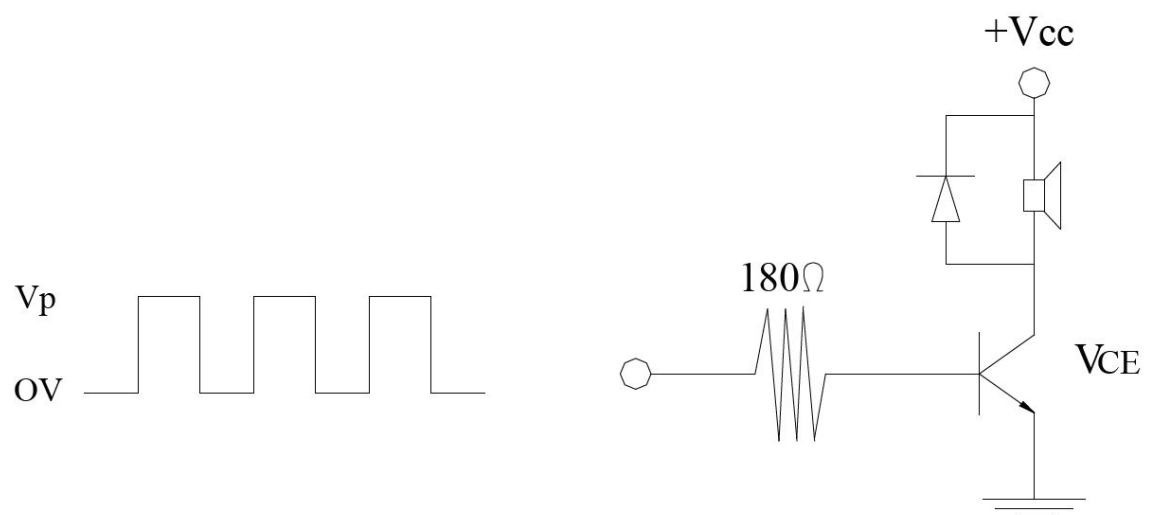
Recommendable wave soldering condition is as follows:

Note 1: It is requested that reflow soldering should be executed after heat of product goes down to normal temperature.

Note 2: Peak reflow temperature of 250°C maximum of 10 seconds, with a maximum duration of 40-60 seconds between 220°C and 250°C



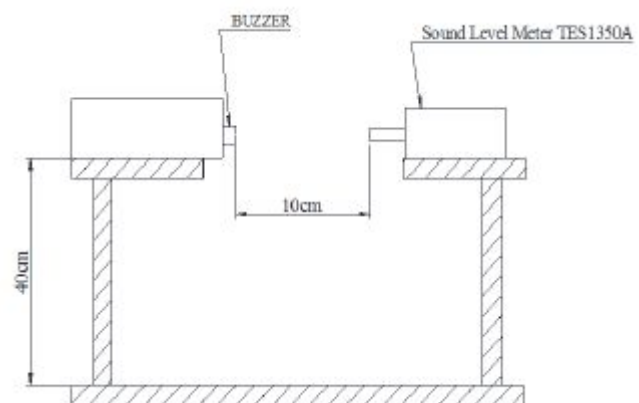
Measurement Test Circuit



Inspection Fixture

S.P.L Measuring Circuit

Input Signal: 12.0 Vo-p, square wave, 1/2 duty, 1000 Hz



Mic: RION S.P.L meter UC30 or equivalent

S.G: Hewlett Packard 33120A Function Generator or equivalent



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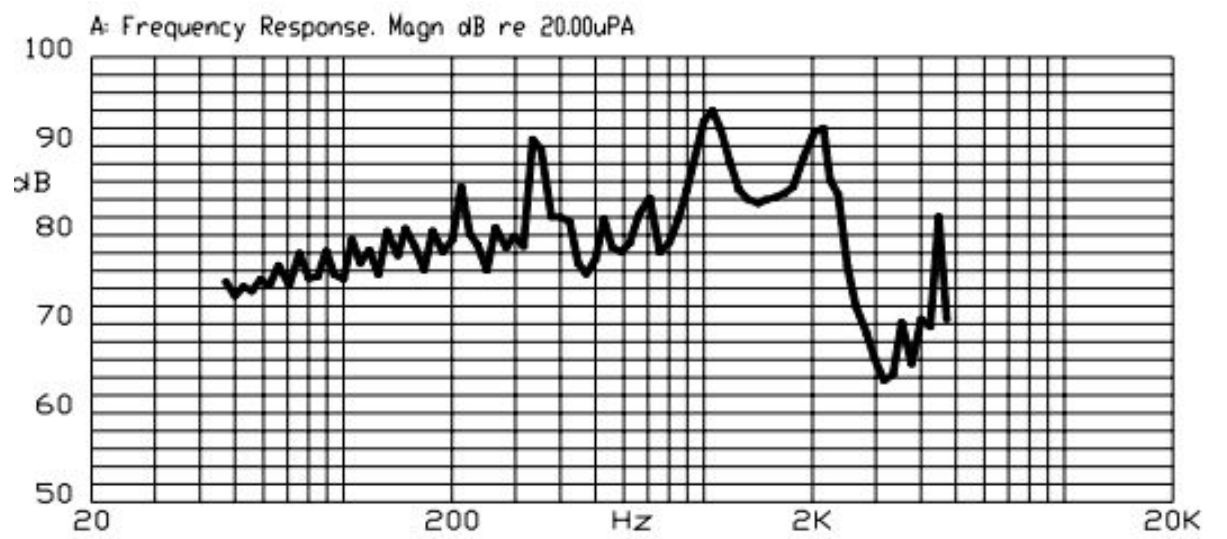
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Typical Frequency Response Curve





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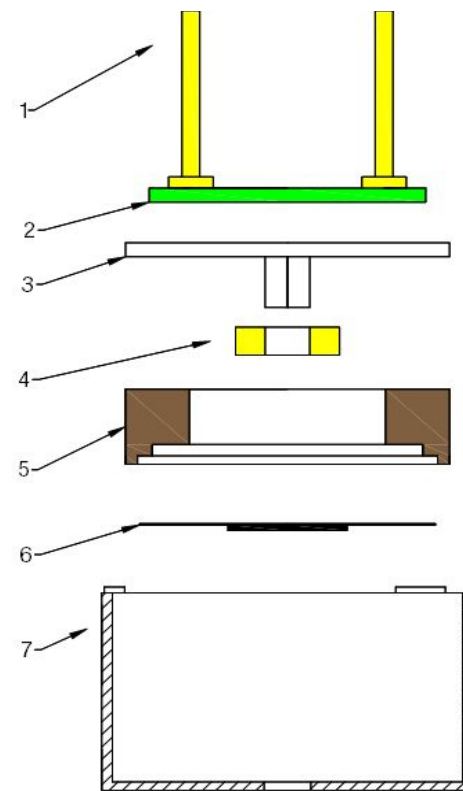
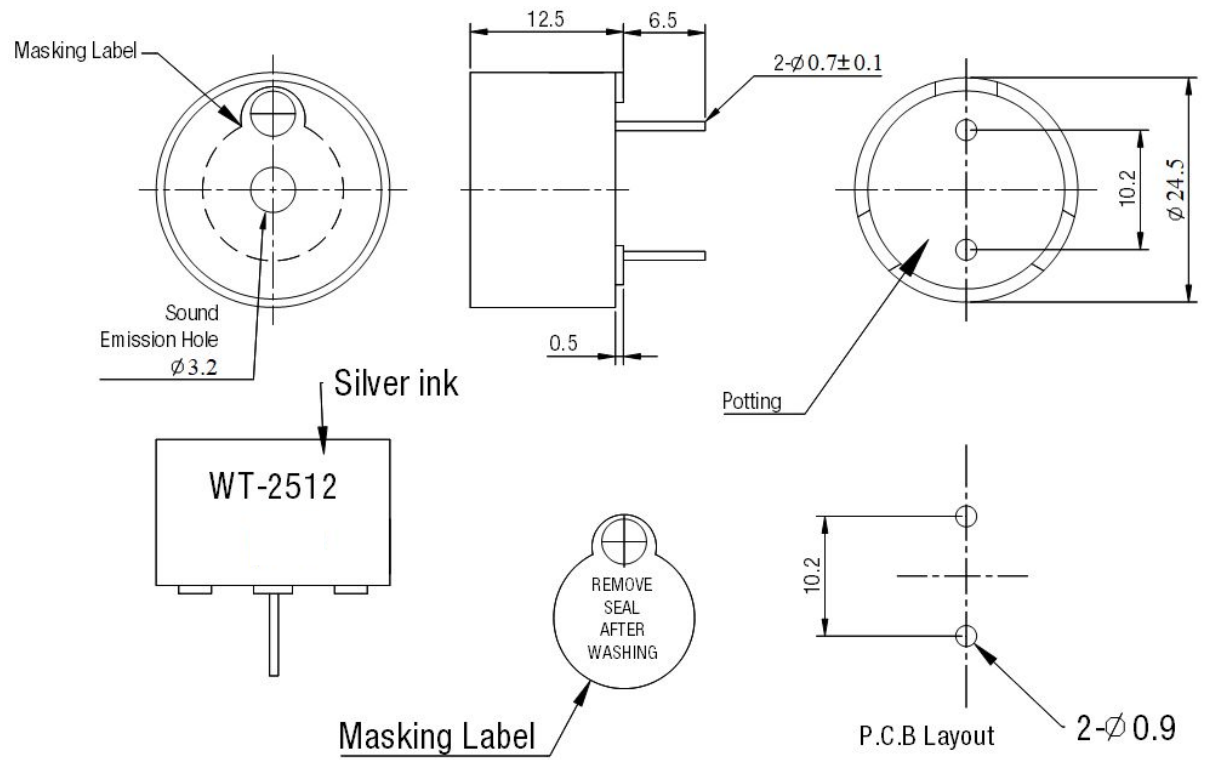
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Dimensions

Tolerance: ± 0.5 (unit: mm)



| No. | Part Name | Material | Quantity |
|-----|-------------|----------------------------------|----------|
| 1 | PIN | Copper | 2 |
| 2 | PCB | Epoxy Glass Fiber Cloth + Copper | 1 |
| 3 | Core | Ferrum | 1 |
| 4 | Coil | Copper | 1 |
| 5 | Magnet Ring | Poly + Ferrite | 1 |
| 6 | Diaphragm | Ferrum | 1 |
| 7 | CASE | PBT | 1 |



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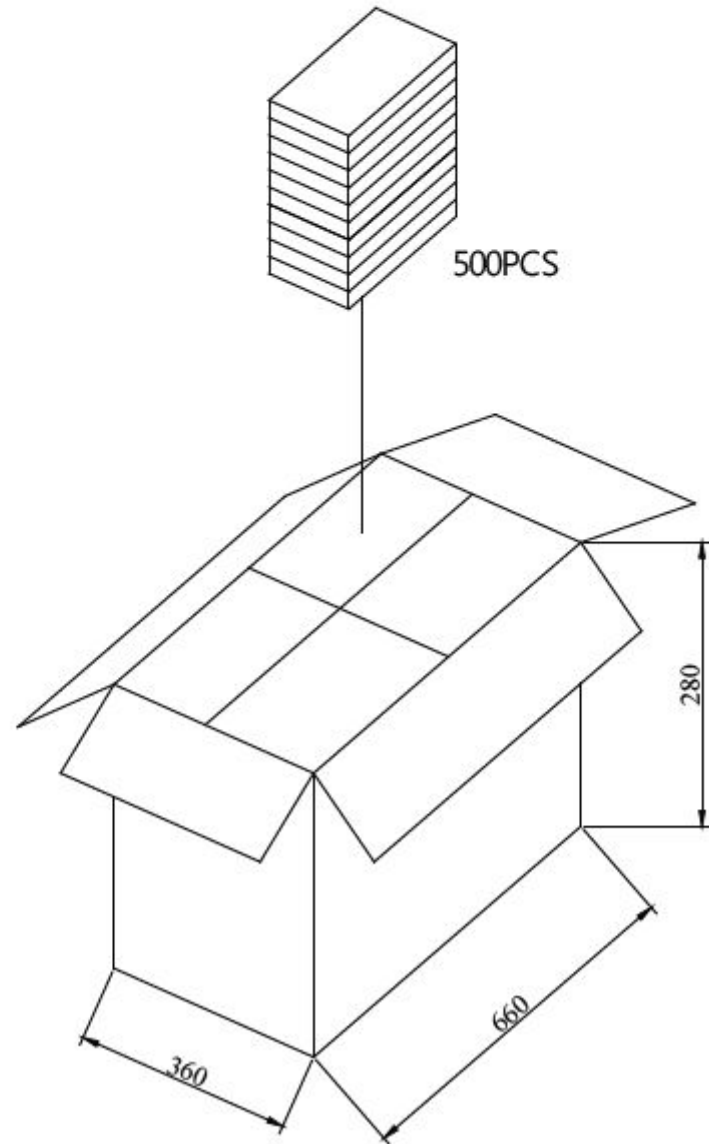
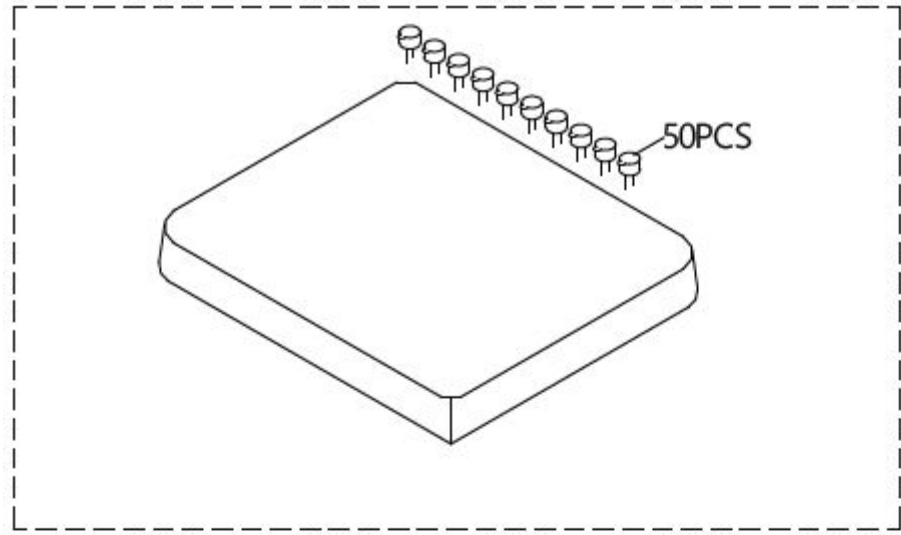
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Packing



| size | quantity |
|------------|----------|
| tray | 50 pcs |
| inner box | 500 pcs |
| carton box | 2000 pcs |