

PRODUCT: Electromagnetic Buzzer

EDITION: A/2017

Soberton Inc.

THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER

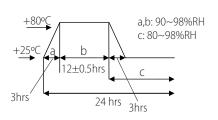
SPECIFICATION

Test condition: TEMP=+25±2 ℃ Related humidity=65±5% Air pressure:860 ~1060mbar

| item | unit | specification | condition |
|-----------------------|------|----------------|--|
| rated voltage | Vo-p | 6.0 | Vo-p |
| operating volt | Vo-p | 5.0 ~ 7.0 | |
| mean current | mA | 40 Max | At rated voltage 2048Hz, square wave, 1/2 duty |
| coil resistance | Ω | 50±5 | |
| sound output | dBA | 85 | At 10cm(A-weight free air), at rated voltage |
| | | | 2048Hz, square wave, 1/2duty |
| rated frequency | Hz | 2048 | |
| operating temp | oC | -30 ~ +60 | |
| storage temp | oC | -40 ~+70 | |
| dimension | mm | φ16.0 x H 14.0 | See attached drawing |
| weight | gram | 7.0 | |
| material | | PPO(Black) | |
| terminal | | Pin type | See attached drawing |
| | | (Plating Sn) | |
| environmental | | RoHS | |
| protection regulation | | | |

ENVIRONMENT TEST

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|-----------------------|--|---|
| item | test condition | evaluation standard |
| high temp. test | After being placed in a chamber at +70°C for 96 hours. | After the test the part will meet specifications without any degradation in appearance and |
| low temp. test | After being placed in a chamber at -30℃ for 96 hours. | performance except SPL, after 4 hours at +25°C. The SPL will be in ±10dBA compared with initial |
| thermal shock | The part will be subjected to 10 cycles. One cycle shall consist of: +70°C 30 min 60 min | one. |
| temp./humidity cycle | The part will be subjected to 10 cycles. One cycle shall be 24 hours and consist of: | _ |





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RELIABILITY TEST

| item | test conditions | evaluation standard |
|---------------------|---|--|
| operating life test | ORDINARY TEMPERATURE | After the test the part will meet specifications |
| | The part will be subjected to 96 hours of | without any degradation in appearance and |
| | continuous operation at room temperature. | performance except SPL, after 4 hours at +25°C. |
| | HIGHTEMPERATURE | The SPL would be in ± 10 dBA compared with |
| | The part will be subjected to 72 hours of | initial one. |
| | continuous operation at +60°C with 6.0V, | |
| | 2048Hz applied. | _ |
| | LOW TEMPERATURE | |
| | The part will be subjected to 72 hours of | |
| | continuous operation at -20°C with 6.0V, 2048Hz | |
| | applied. | |

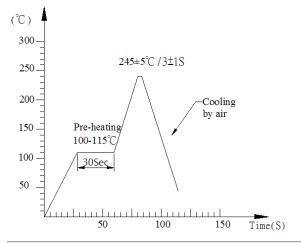
TEST CONDITION

Standard Test Condition: a)Temperature: +5~+35°C b)Humidity:45~85% c)Pressure: 860~1060mbar

MECHANICAL CHARACTERISTICS

| item | test condition | evaluation standard |
|------------------------------|---|--|
| solderability | Lead terminals are immersed in solder bath of +250±5°C for 3±1 seconds. | 90% min.lead terminals will be wet with solder No interference in operation. |
| soldering heat resistance | Lead terminal are immersed in soldering bath of 260±5°C for 2±0.5 seconds. | • |
| terminal mechanical strength | Apply the terminal with 1KG strength for 1 minute | No damage and cutting off. |
| vibration | The part will be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude will be 1.52mm(9.3G). The vibration test will consist of 2 hours per axis in each three axes (X,Y,Z). Total 6 hours. | After the test the part will meet specifications without any damage in appearance and performance except SPL. SPL would be in ±10dBA compared with initial one. |
| drop test | The part only will be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X,Y,Z). Total of 9 times. | |

RECOMMENDED TEMPERATURE PROFILE FOR REFLOW OVEN



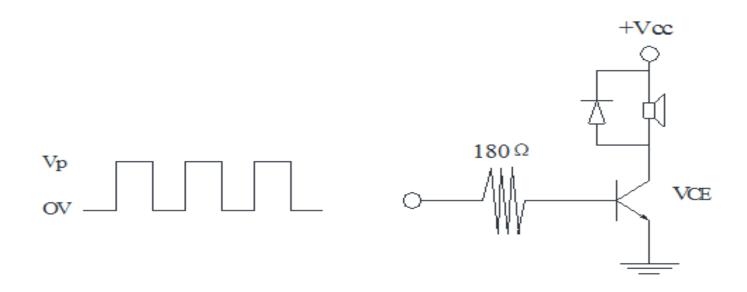
Recommendable wave soldering condition is as follows: Note 1: It is requested that reflow soldering should be executed after heat of product goes down to normal temperature. Note 2: Peak reflow temperature of 250°C maximum of 10 seconds, with a maximum duration of 40-60 seconds between 220°C and 250°C



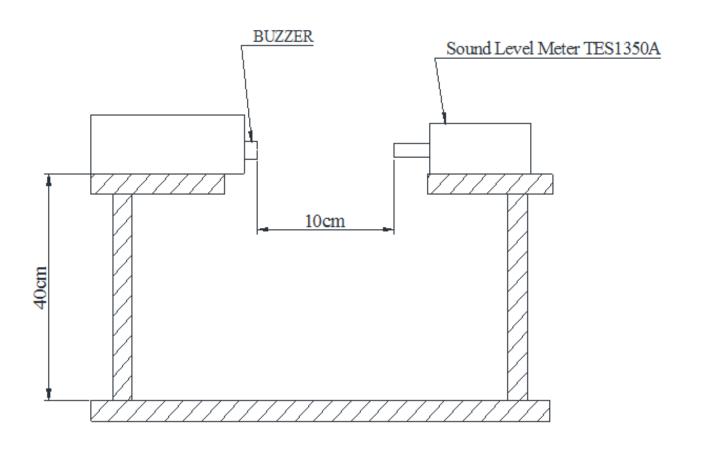
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MEASUREMENT TEST CIRCUIT



INSPECTION FIXTURE





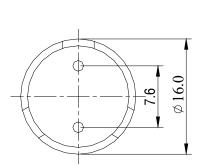
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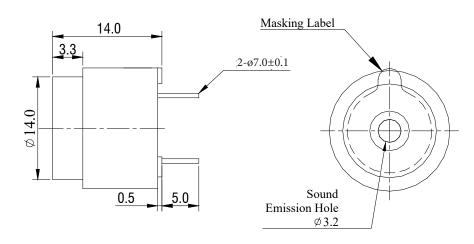
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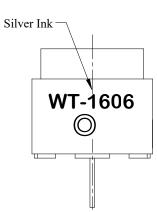
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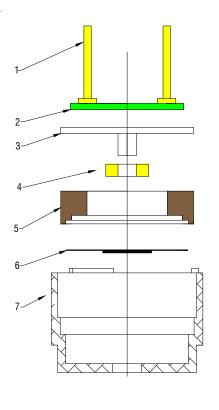
DIMENSIONS

Tolerance:±0.5 (unit: mm)









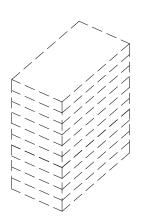
| no | item | material | quantity |
|----|-------------|----------------------------------|----------|
| 1 | PIN | Copper | 2 |
| 2 | PCB | Epoxy glass fiber cloth + Copper | 1 |
| 3 | Core | Ferrum | 1 |
| 4 | Coil | Copper | 1 |
| 5 | Magnet ring | Poly + Ferrite | 1 |
| | Diaphragm | Ferrum | 1 |
| 6 | CASE | PPO | 1 |

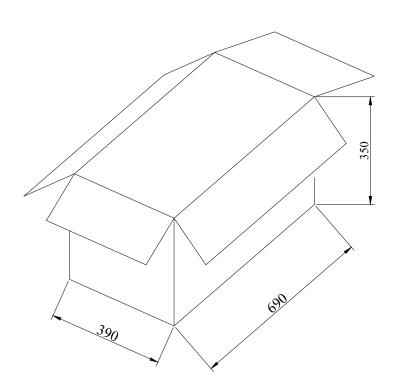


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PACKING





| size | lxwxh | quantity |
|------------|-------------|----------|
| tray | 320x70x28 | 50 pcs |
| inner box | 340x190x310 | 500 pcs |
| carton box | 690x390x350 | 2000 pcs |