



MODEL: WST-1203BX
PRODUCT: Electromagnetic Buzzer
EDITION: A/2016

THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER

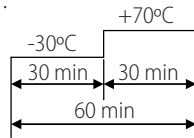
SPECIFICATION

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

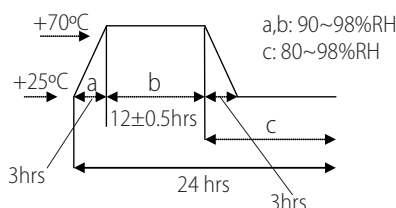
| item | unit | specification | condition |
|-------------------------------------|------|-----------------------|--|
| rated voltage | Vo-p | 3.0 | |
| operating volt | Vo-p | 2.0 ~ 4.0 | |
| mean current | mA | Max.30 | At rated voltage direct current |
| coil resistance | Ω | | |
| sound output | dBA | 82 | At 10cm(A-weight free air) and at rated voltage direct current |
| rated frequency | Hz | 3100 ± 400 | |
| operating temp | °C | -20 ~ +60 | |
| storage temp | °C | -30 ~ +70 | |
| dimension | mm | φ12.0×H7.5 | See attached drawing |
| weight | gram | 2.0 | |
| material | | PPO (Black) | |
| terminal | | Pin type (Plating Sn) | See attached drawing |
| environmental protection regulation | | RoHS | |

ENVIRONMENT TEST

| 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 performance except SPL, after 4 hours at +25°C. The SPL will be in ±10dBA compared with initial one. |
| low temp. test | After being placed in a chamber at -30°C for 96 hours. | |
| thermal shock | The part will be subjected to 10 cycles. One cycle shall consist of: | |



| | |
|----------------------|---|
| 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 The part will be subjected to 96 hours of continuous operation at room temperature. | After the test the part will meet specifications without any degradation in appearance and performance except SPL, after 4 hours at +25°C. The SPL would be in ± 10 dBA compared with initial one. |
| | HIGH TEMPERATURE The part will be subjected to 72 hours of continuous operation at +60°C with 3.0V applied. | |
| | LOW TEMPERATURE The part will be subjected to 72 hours of continuous operation at -20°C with 3.0V applied. | |
| | HIGH AND LOW VOLTAGE Applying 2.0 voltage and 4.0 voltage, available time 24 hours each. | |

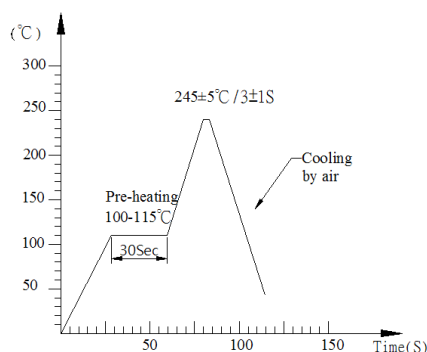
TEST CONDITION

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

MECHANICAL CHARACTERISTICS

| item | test conditions | evaluation standard |
|------------------------------|---|--|
| solderability | Lead terminal are immersed in rosin for 5 seconds and then immersed in solder bath of +250 \pm 5°C for 3 \pm 0.5 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 +250 \pm 5°C for 2 \pm 0.5 seconds. | No interference in operation |
| terminal mechanical strength | Apply the terminal with 1KG tension 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. The SPL would be 80dBA 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. | |

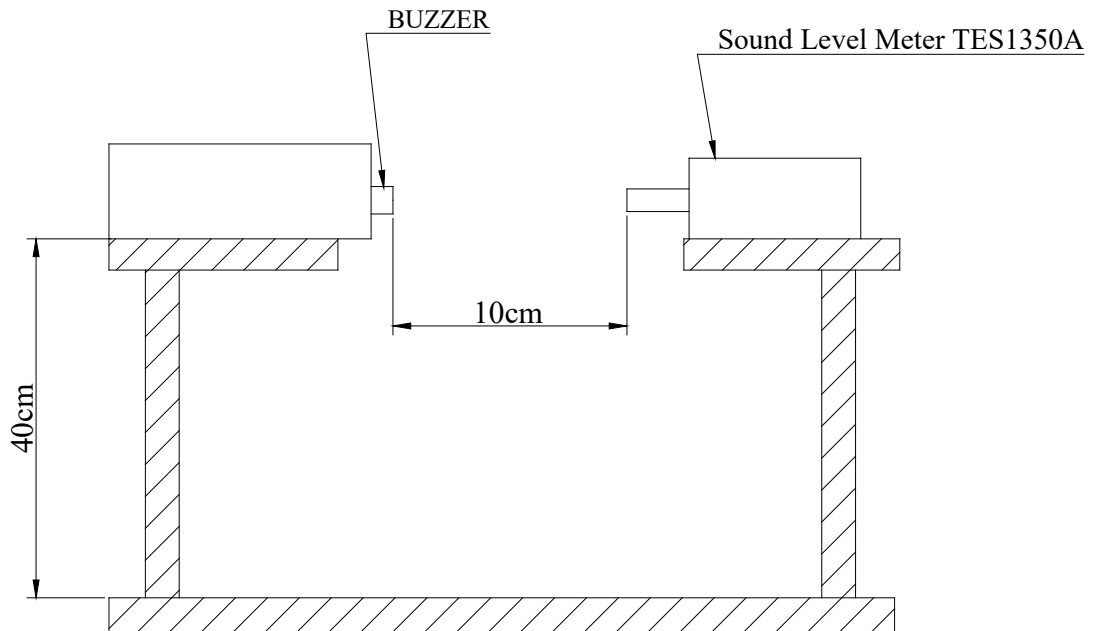
RECOMMENDED WAVE SOLDERING TEMPERATURE CURVE



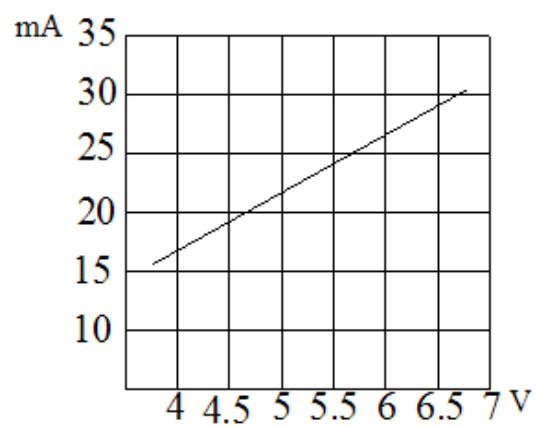
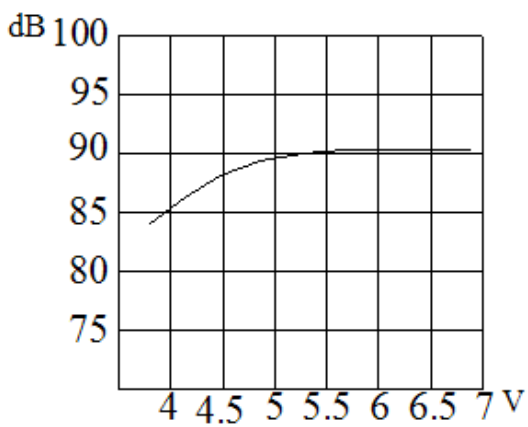


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INSPECTION FIXTURE



FREQUENCY RESPONSE

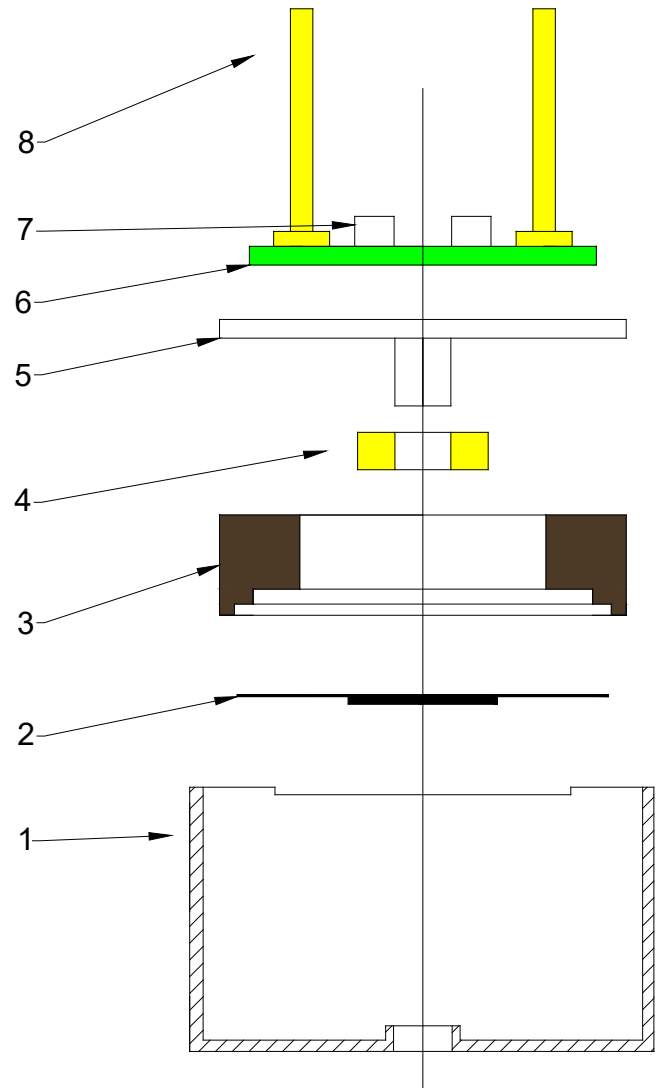
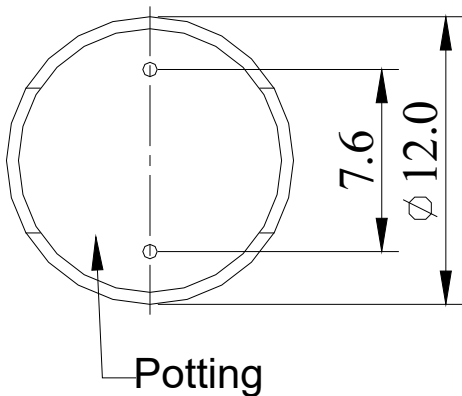
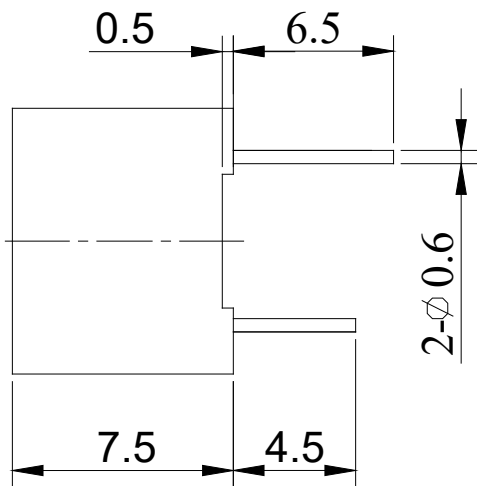
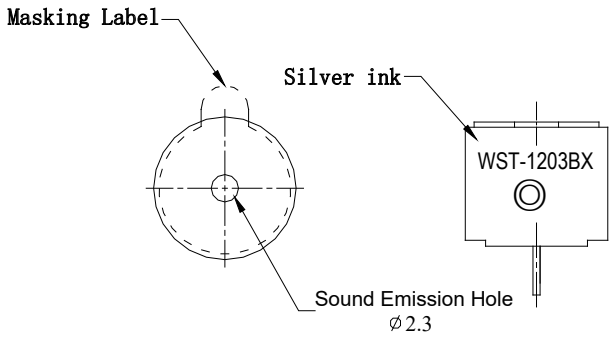




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DIMENSIONS

Tolerance: ±0.5 (unit: mm)

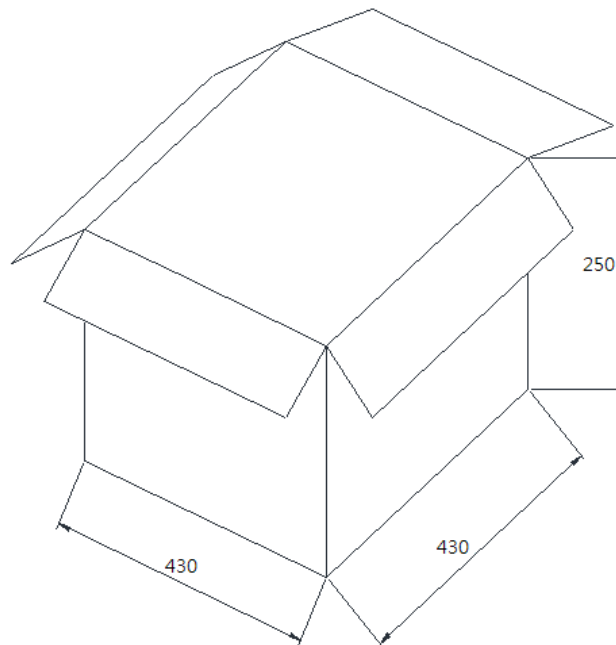
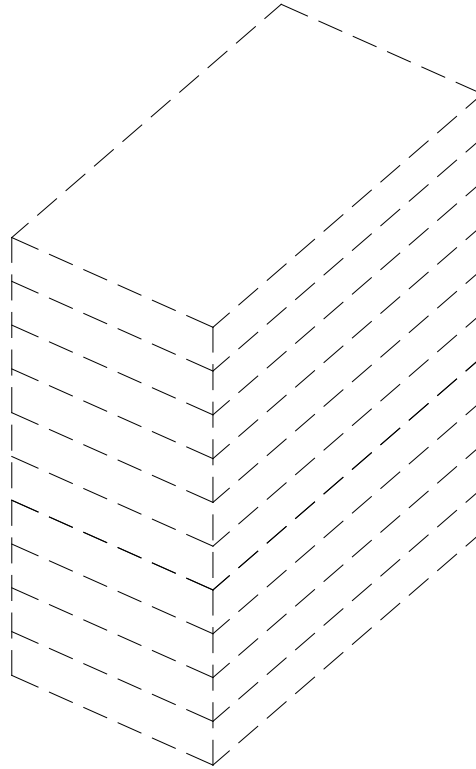


| no | item | material | quantity |
|----|-------------|----------------------------------|----------|
| 1 | CASE | PPO | 1 |
| 2 | Diaphragm | Ferrum | 1 |
| 3 | Magnet ring | Poly+ferrite | 1 |
| 4 | Coil | Copper | 1 |
| 5 | Core | Ferrum | 1 |
| 6 | PCB | Epoxy glass fiber cloth + copper | 1 |
| 7 | Transistor | Epoxy + copper | 2 |
| 8 | PIN | Copper | 2 |



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PACKING



| packing box | LxWxH (mm) | pieces |
|---------------|-------------|--------|
| Tray | 190x190x25 | 100 |
| Inner cartons | 210x210x220 | 1600 |
| Outer cartons | 430x430x250 | 6000 |