



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MODEL: WST-1212S
PRODUCT: Electromagnetic Buzzer
EDITION: A/2016

THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER

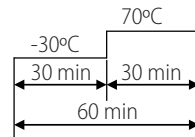
SPECIFICATION

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

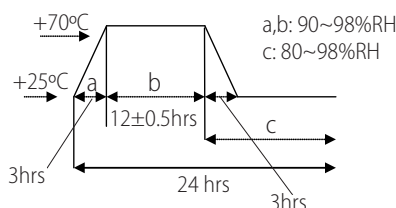
| item | unit | specification | condition |
|-------------------------------------|------|-----------------------|---|
| rated voltage | Vo-p | 12.0 | |
| operating volt | Vo-p | 10.0 ~ 14.0 | |
| mean current | mA | Max. 40 | At rated voltage direct current |
| sound output | dba | 85 | At 10cm(A-weight free air), at rated voltage direct current |
| rated frequency | Hz | 2300 ± 300 | |
| operating temp | °C | -20 ~ +70 | |
| storage temp | °C | -30 ~ +80 | |
| dimension | mm | φ12.0×H9.5 | See attached drawing |
| weight | gram | 2.0 | |
| material | | PBT (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 ±10dBA compared with initial one. |
| | HIGH TEMPERATURE The part will be subjected to 72 hours of continuous operation at +60°C with 5.0V applied. | |
| | LOW TEMPERATURE The part will be subjected to 72 hours of continuous operation at -20°C with 5.0V applied. | |
| | HIGH AND LOW VOLTAGE Applying 10.0 voltage and 14.0 voltage, available time 24 hours each. | |

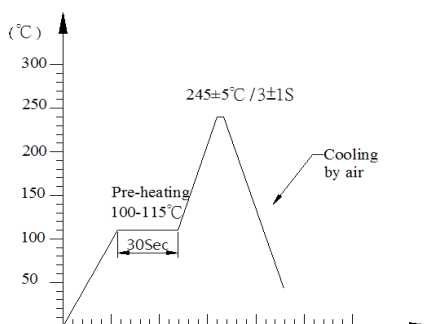
TEST CONDITION

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 +260±5°C for 3±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±5°C for 2±0.5 seconds. | |
| 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 in ±8dBA 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. | |

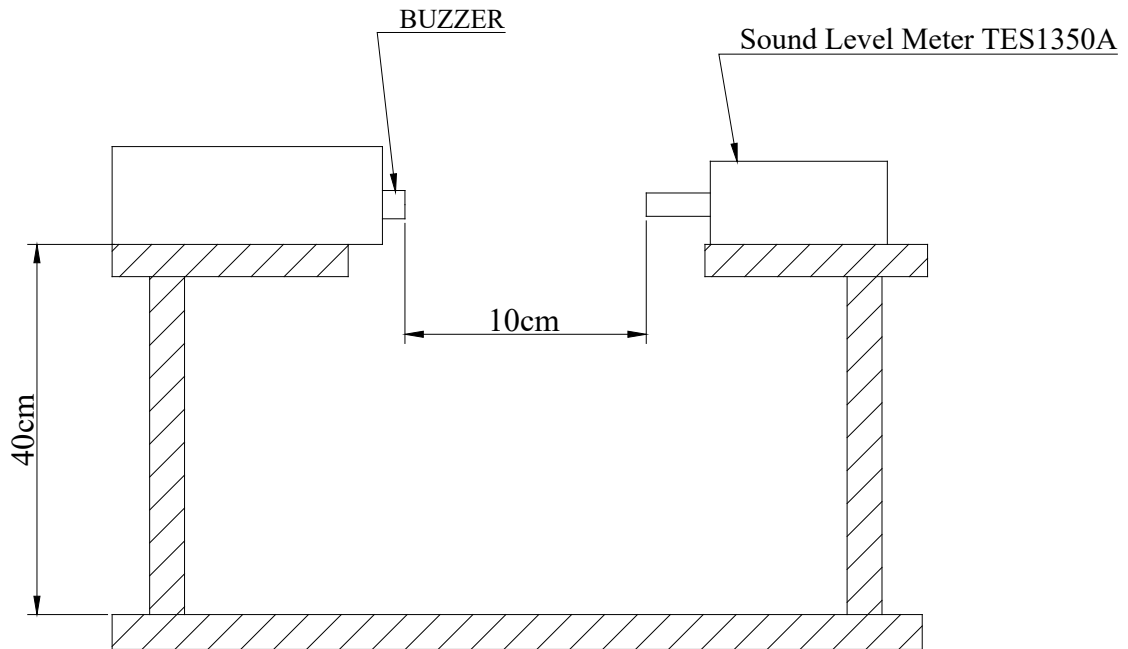
RECOMMENDED WAVE SOLDERING TEMPERATURE CURVE



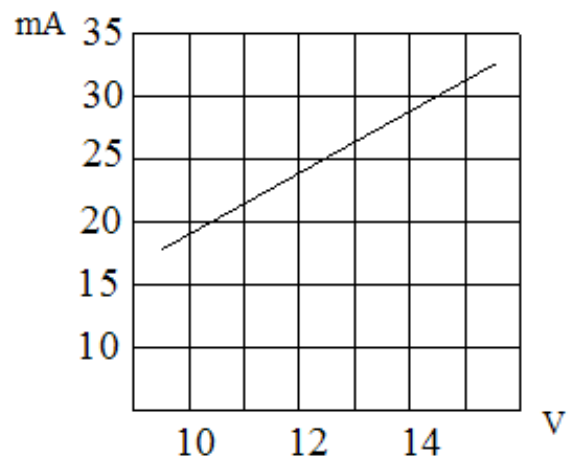
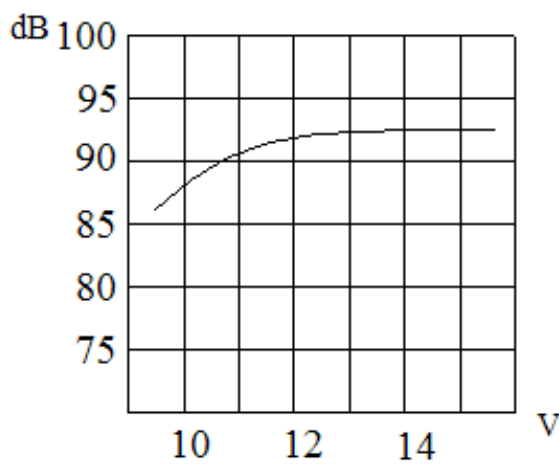


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INSPECTION FIXTURE



FREQUENCY RESPONSE

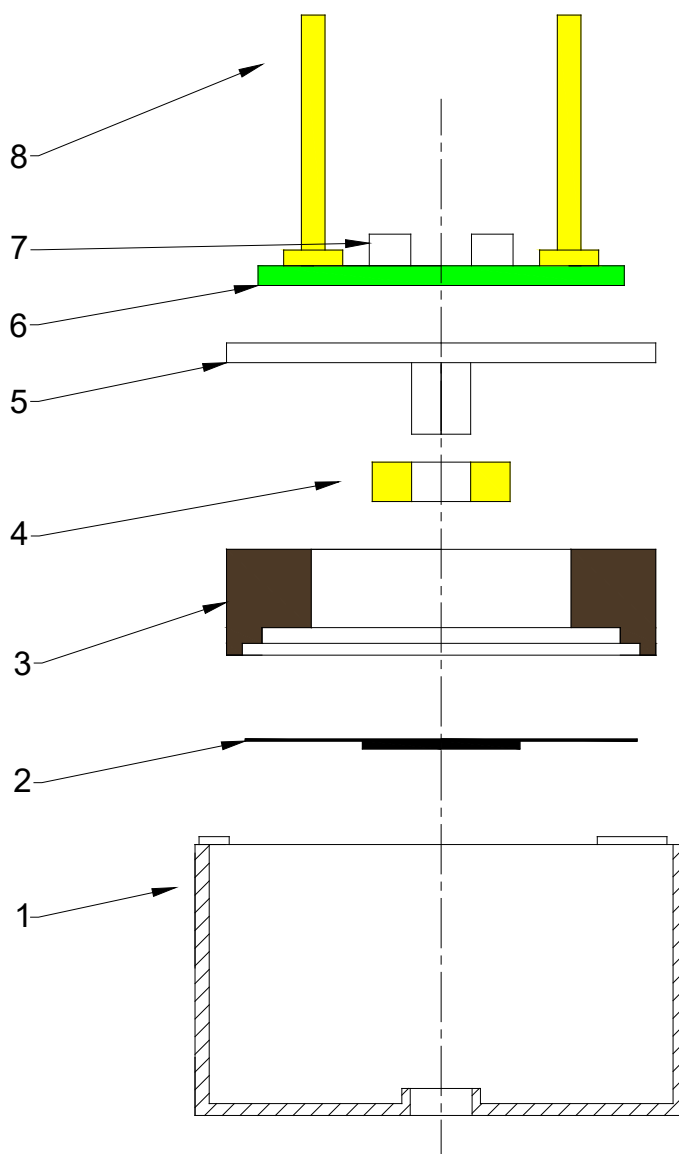
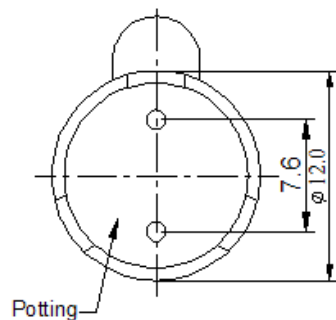
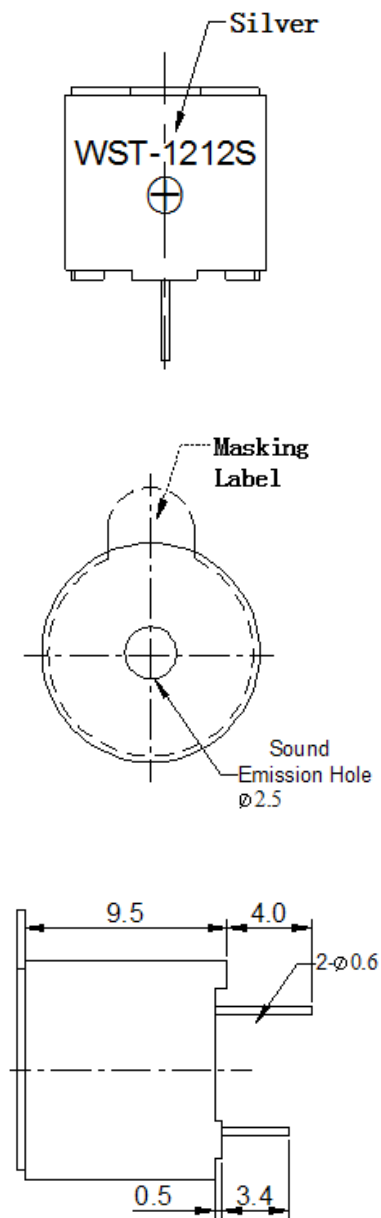




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DIMENSIONS

Tolerance: ±0.5 (unit: mm)

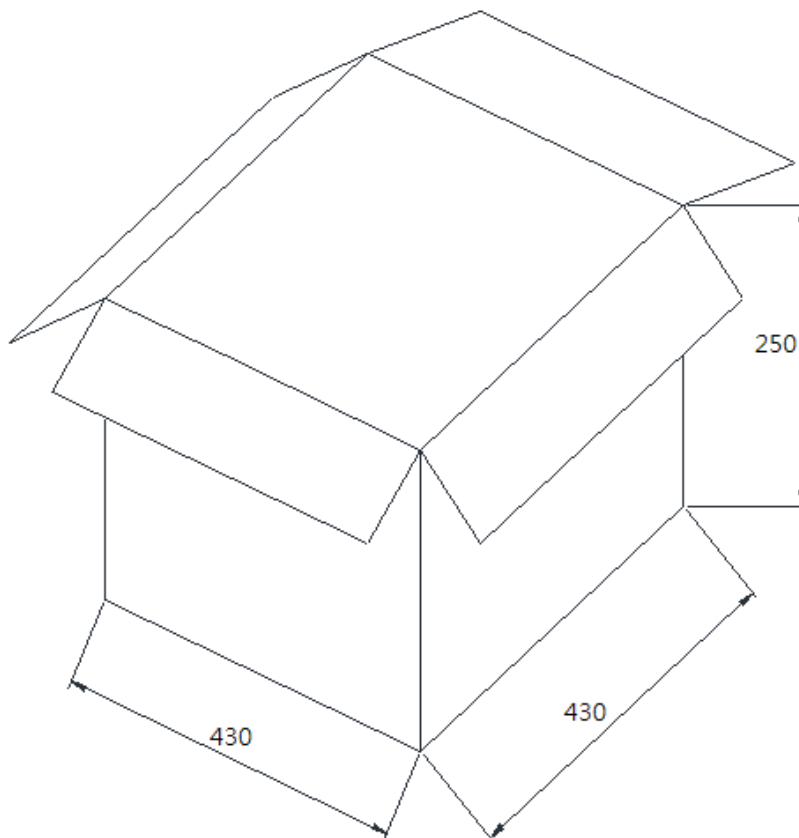
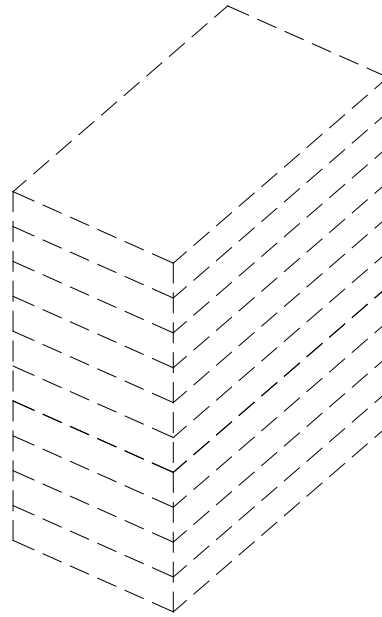


| no | item | material | quantity |
|----|-------------|----------------------------------|----------|
| 1 | CASE | PPO | 1 |
| 2 | Diaphragm | Ferrum | 1 |
| 3 | Magnet ring | Poly+ferrite | 1 |
| 4 | Coil | Copper | 1 |
| 5 | Core | Ferrum | 1 |
| 6 | PCB | Epoxy glass fiber cloth + copper | 1 |
|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



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PACKING



| packing box | LxWxH (mm) | pieces |
|---------------|-----------------|--------|
| Tray | 190 x 190 x 25 | 100 |
| Inner Cartons | 210 x 210 x 220 | 1000 |
| Outer Carton | 430 x 430 x 250 | 4000 |