



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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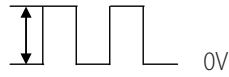


**MODEL:** ST-025BLA  
**PRODUCT:** Electromagnetic Buzzer  
**EDITION:** A/2017

**THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER**

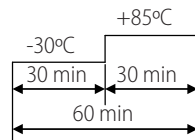
**SPECIFICATION**

TEST CONDITION: TEMP= +25 ±2°C RELATED HUMIDITY= 65 ±5% AIR PRESSURE: 860 ~ 1060MBAR

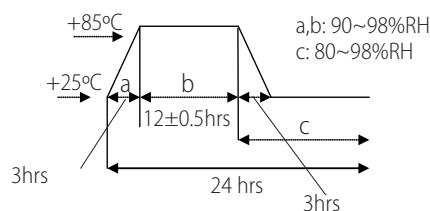
| item                                | unit | specification         | condition  |
|-------------------------------------|------|-----------------------|--|
| rated voltage                       | Vo-p | 3.6                   | Vo-p  |
| operating volt                      | Vo-p | 2.5 ~ 4.5             |  |
| mean current                        | mA   | Max.100               | At rated voltage 2500Hz, square wave, 1/2 duty   |
| coil resistance                     | Ω    | 16 ±3                 |  |
| sound output                        | dBA  | 80                    | At 10cm (A-weight free air), at rated voltage 2500Hz, square wave, 1/2duty               |
| rated frequency                     | Hz   | 2500                  |  |
| operating temp                      | °C   | -30 ~ +85             |  |
| storage temp                        | °C   | -40 ~ +85             |  |
| dimension                           | mm   | 7.5×7.5×H2.5          | See attached drawing   |
| weight                              | gram | 0.8                   |  |
| material                            |      | LCP(Black)            |  |
| terminal                            |      | SMD 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 +85°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. |
| low temp. test  | After being placed in a chamber at -30°C for 96 hours.               | The SPL will be in ±10dBA compared with initial one.   |
| 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<br>The part will be subjected to 96 hours of continuous operation at +25 ±10°C.                   | After the test the part will meet specifications without any degradation in appearance and performance except SPL, after 4 hours at +25°C.<br>Allowable variation of SPL after test: ±10dB |
|                     | HIGH TEMPERATURE<br>The part will be subjected to 72 hours of continuous operation at +85°C with 3.6V, 2500Hz applied. |  |
|                     | LOW TEMPERATURE<br>The part will be subjected to 72 hours of continuous operation at -30°C with 3.6V, 2500Hz applied.  |  |

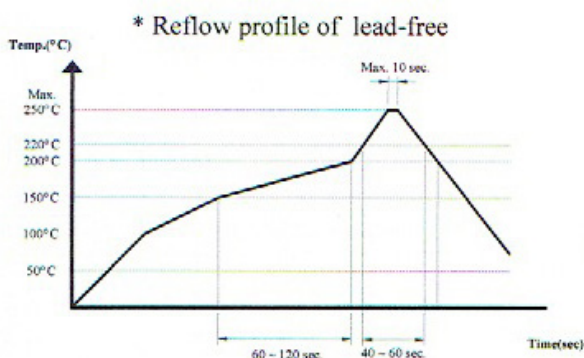
### TEST CONDITION

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   |
| soldering heat resistance    | The product followed the reflow temperature curve to test its reflow thermostability.   | No interference in operation.   |
| terminal mechanical strength | Lead pads will be soldered on the pc board, and the force 9.8N(1.0Kg) will be applied behind the part for 10 seconds.   | 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.<br>The SPL would be ±10dBA compared with the 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). A total of 9 times.  |   |

## RECOMMENDED WAVE SOLDERING TEMPERATURE CURVE



Recommendable reflow soldering condition as follows:

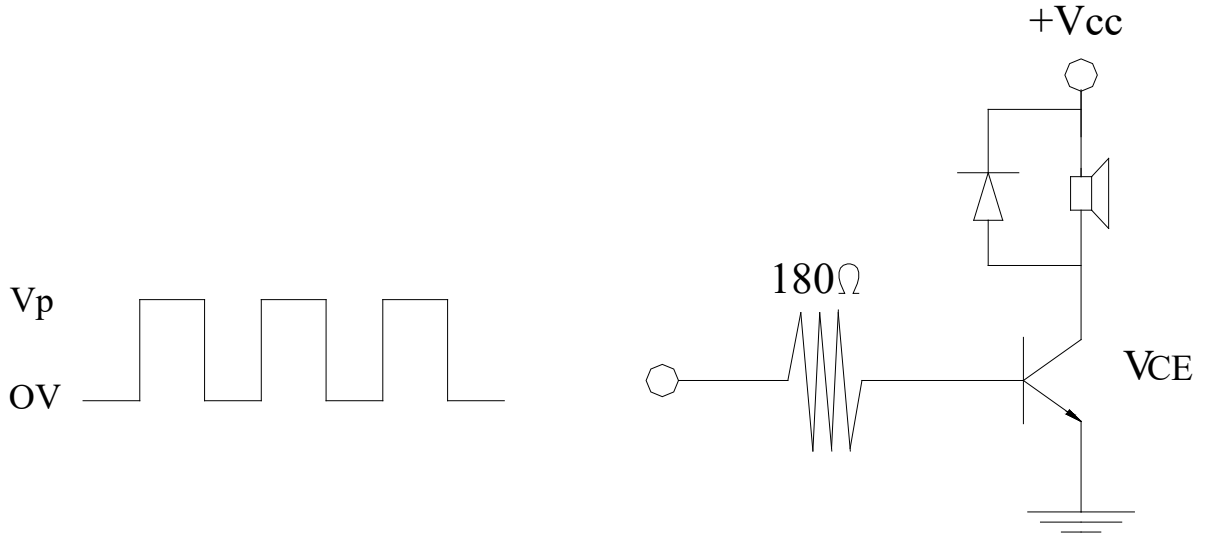
Note 1: It is requested that reflow soldering should be executed after heat of product goes down to normal temperature.

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

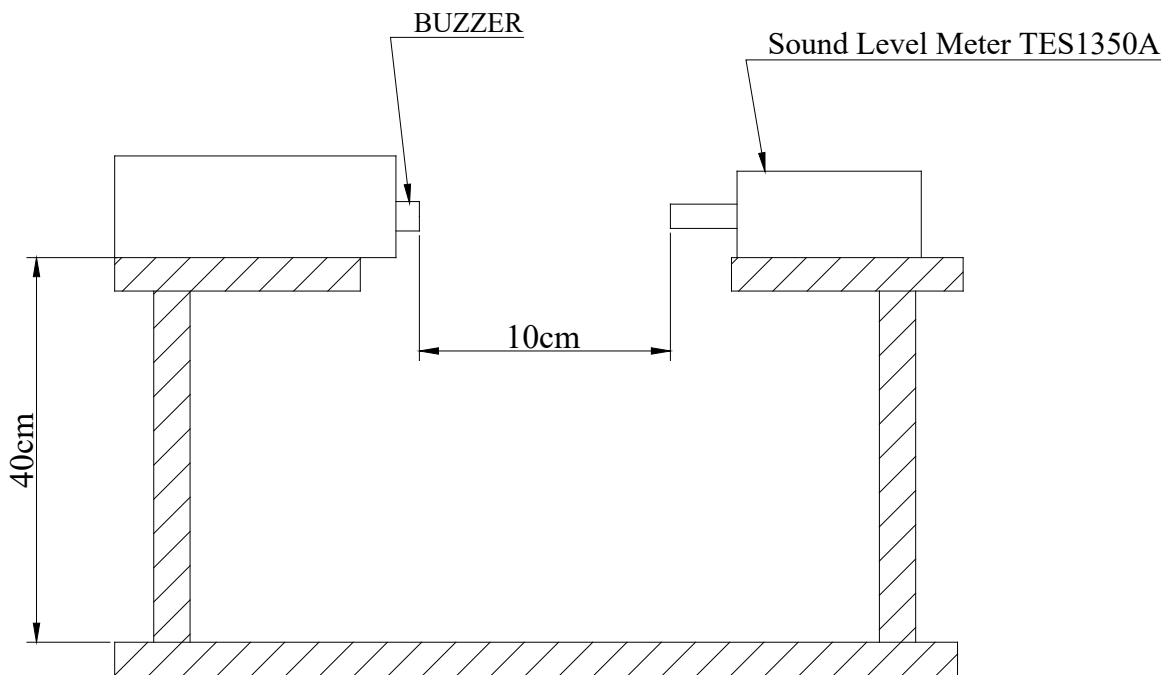


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**MEASUREMENT TEST CIRCUIT**



**INSPECTION FIXTURE**

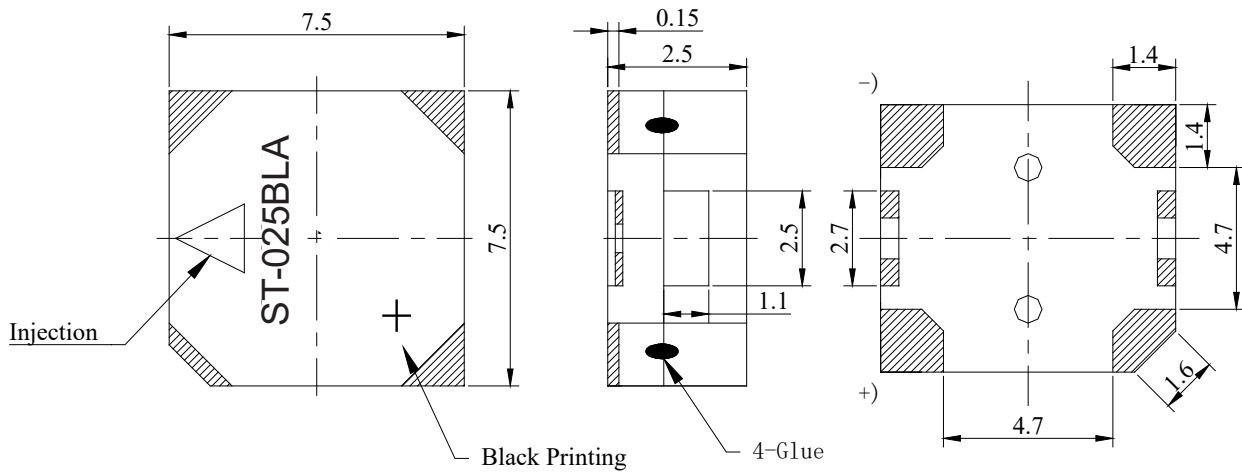




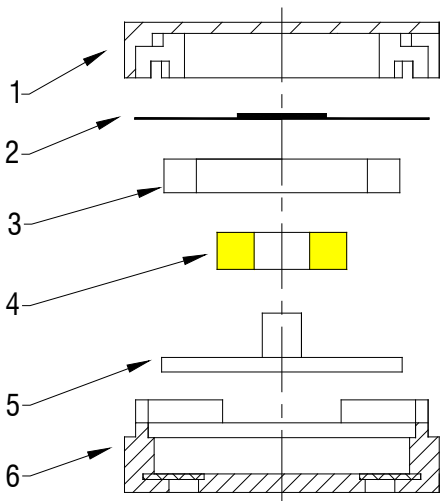
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**DIMENSIONS**

Tolerance:±0.3 (unit: mm)



Tolerance:± 0.5 Unit:mm

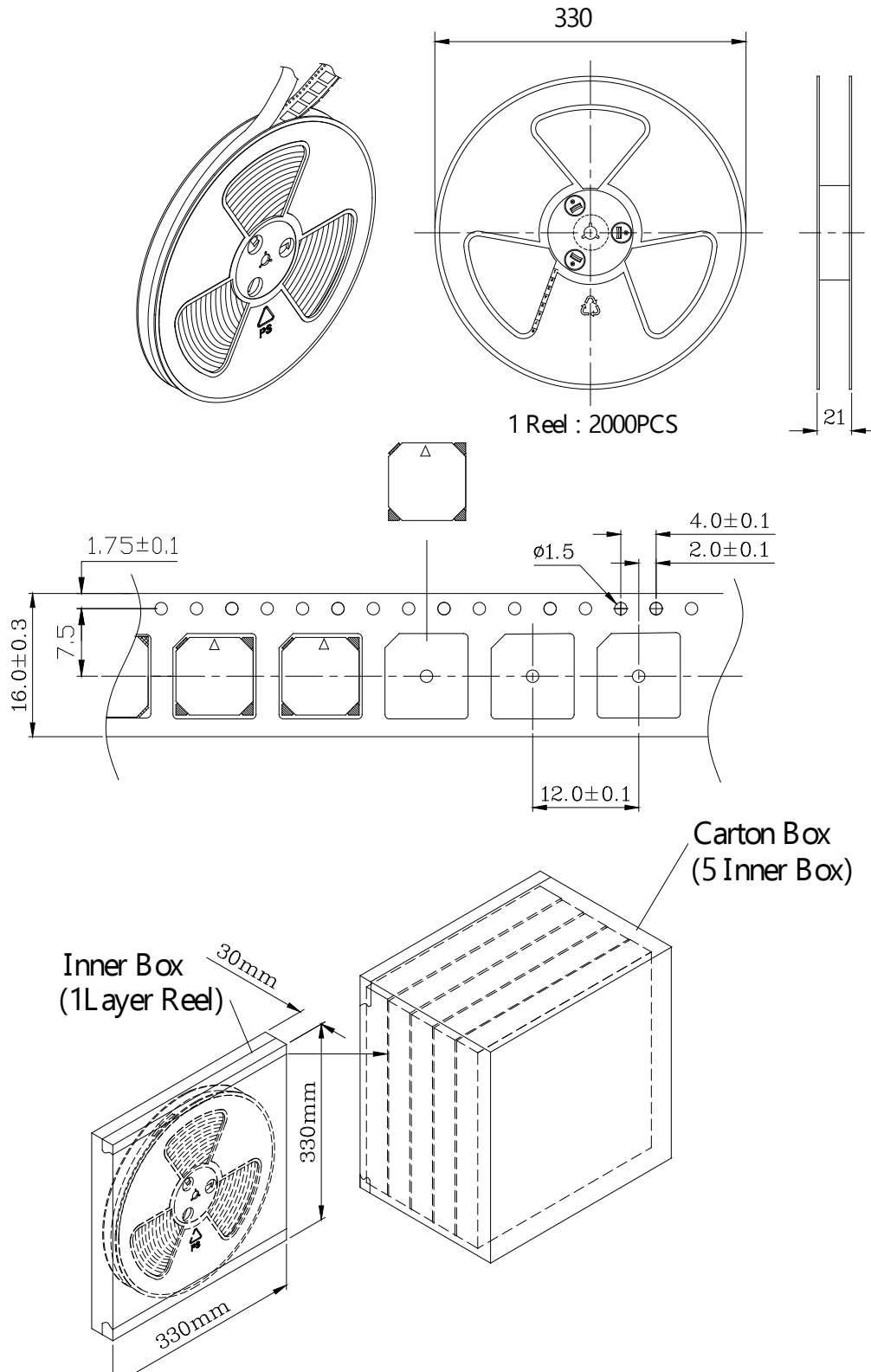


| no | components  | material | quantity |
|----|-------------|----------|----------|
| 1  | Case        | LCP      | 1        |
| 2  | Diaphragm   | Ferrum   | 1        |
| 3  | Magnet ring | NdFeB    | 1        |
| 4  | Coil        | Copper   | 1        |
| 5  | Core        | Ferrum   | 1        |
| 6  | Case        | LCP      | 1        |



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**PACKING**



| packing box | L x W x H (mm)  | pieces                |
|-------------|-----------------|-----------------------|
| Inner Box   | 340x340x40      | 1 x 1000 = 2000pcs    |
| Carton box  | 350 x 175 x 355 | 10 x 2000 = 20,000pcs |