




**MESSRS. Siricom**

**SPECIFICATION FOR APPROVAL**

**承 認 書**

|                   |                              |
|-------------------|------------------------------|
| Product           | ELECTRO MAGNETIC BUZZER(SMD) |
| Part No.          | AD-85D4FR                    |
| Customer Approval |                              |
| Customer Part No. |                              |

| Approved By   | Checked By  | Made By   |
|---|---|---|
|  |  |  |



**Advanced Acoustic Technology Corporation**  
**昊宸股份有限公司 // 常州笠翔电子有限公司**



ISO 9001 Certified

ISO 14001 Certified

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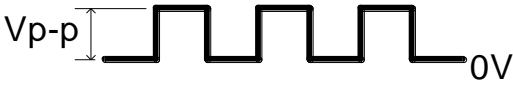
Fax: +886-2-8866-5250

**RoHS**



# 1. SPECIFICATION

AD-85D4FR

| ITEM |   | UNITS              | SPECIFICATIONS | CONDITIONS   |
|------|---|--------------------|----------------|--|
| 01   | Rated Voltage                               | V                  | 3.6            |  |
| 02   | Operating Voltage                           | V                  | 2.5 ~ 4.5      |  |
| 03   | Consumption Current                         | mA<br>Max.         | 100            | Standard state, standard drive circuit.<br>Square wave 1/2 duty.                   |
| 04   | Sound pressure level<br>(Distance at 10cm ) | dB(A)<br>Min.      | 90             | Rated voltage, rated frequency.  |
| 05   | Direct Current Resistance                   | $\Omega$           | 16 $\pm$ 3     |  |
| 06   | Rated Frequency                             | Hz                 | 4000           |  |
| 07   | Operating Temp.                             | $^{\circ}\text{C}$ | -40 ~ +85      |  |
| 08   | Storage Temp.                               | $^{\circ}\text{C}$ | -40 ~ +85      |  |
| 09   | Weight                                      | g                  | 0.5 $\pm$ 0.15 |  |

# 2. MEASURING METHOD

## 2-1. Test Condition

### STANDARD

Temperature : 15 ~ 35 $^{\circ}\text{C}$

Relative humidity : 45% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

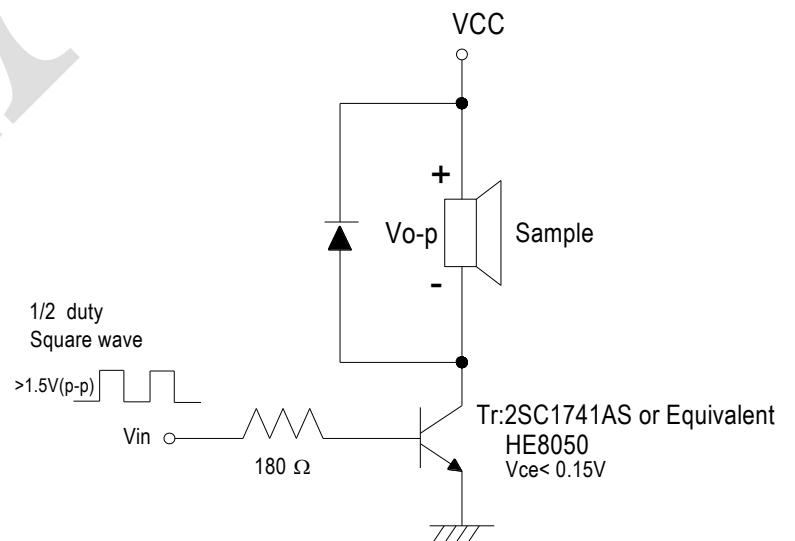
### JUDGEMENT

Temperature : 20 $\pm$ 3 $^{\circ}\text{C}$

Relative humidity : 60% ~ 70%,

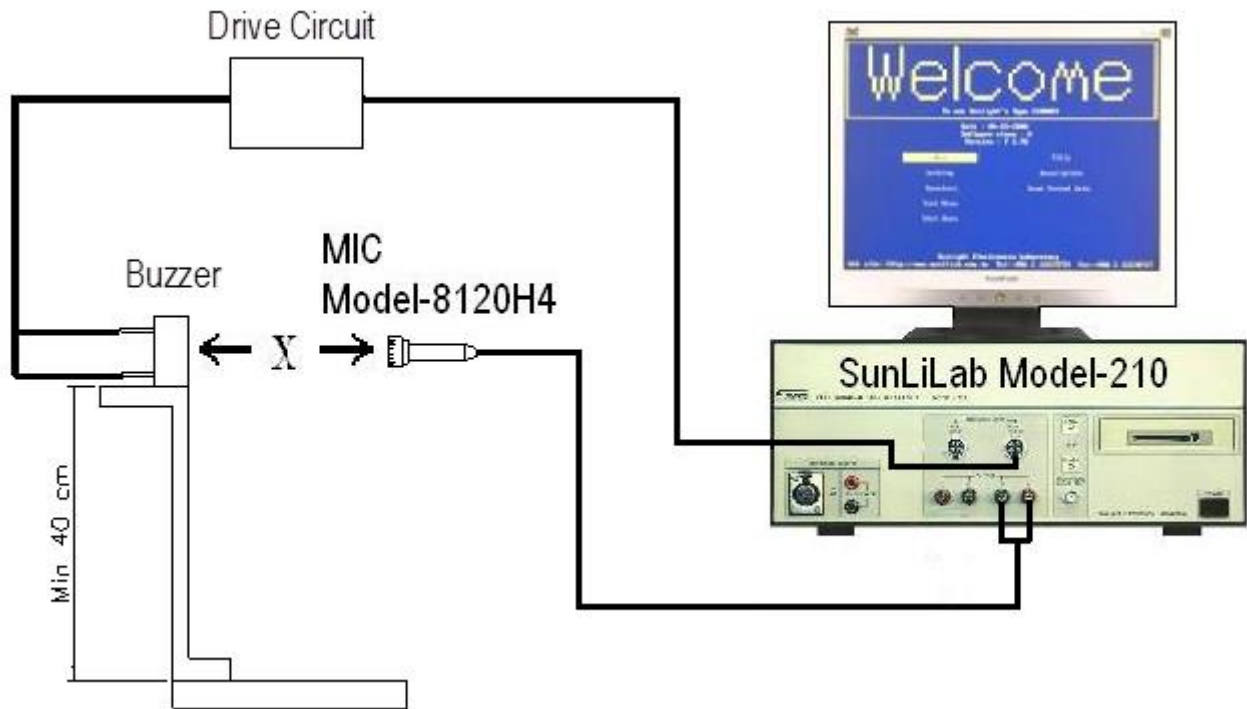
Atmospheric pressure : 860mbar to 1060mbar

## 2-2. Standard drive circuit



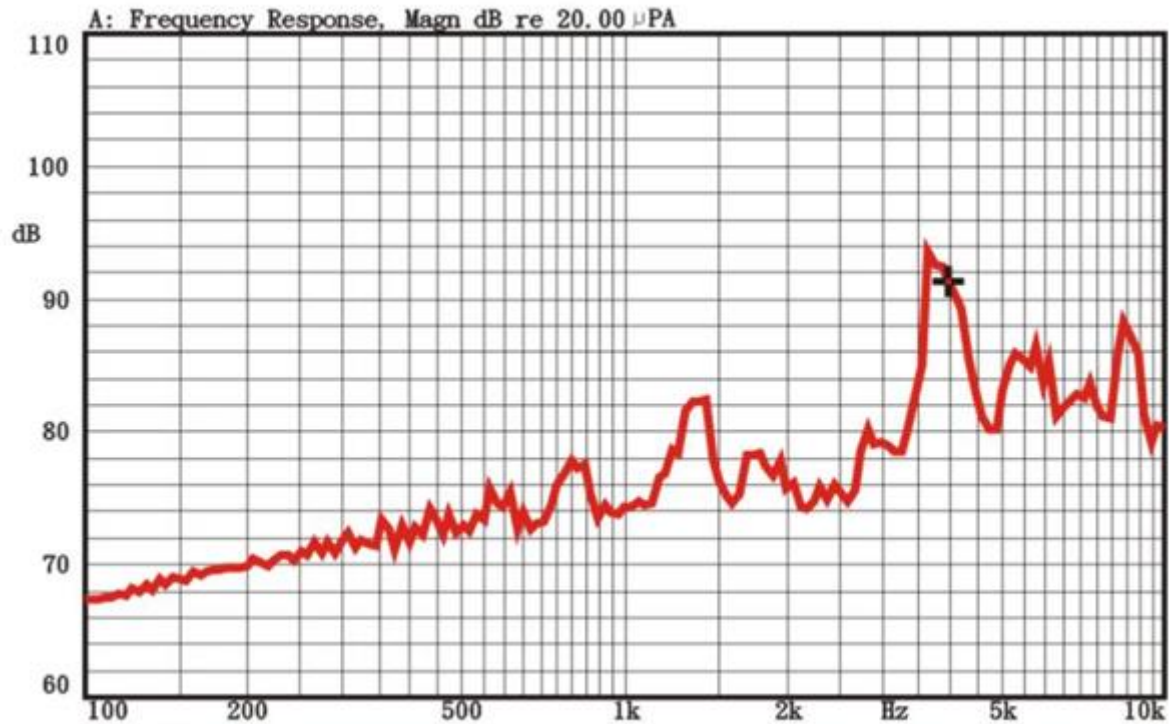
## 2-3. Standard Test Fixture

Distance:  $X=10\text{ cm}$



## 2-4. Frequency Response Curve

X:3.9811kHz Y:91.33dB ZA:Live Curve SSR T. RMS

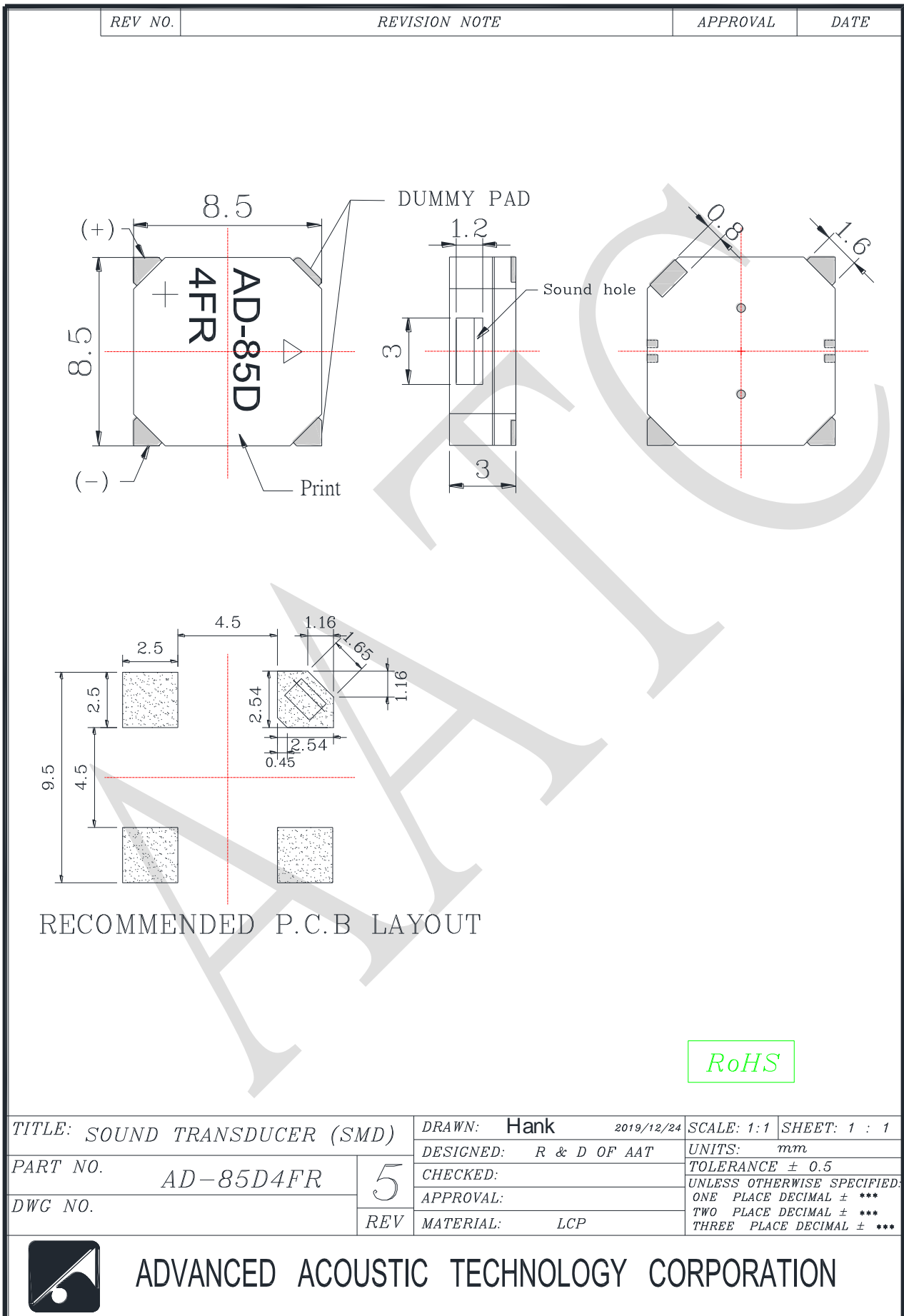


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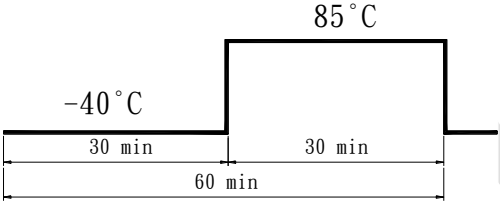
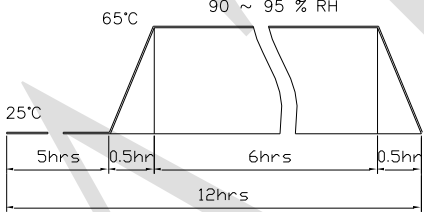
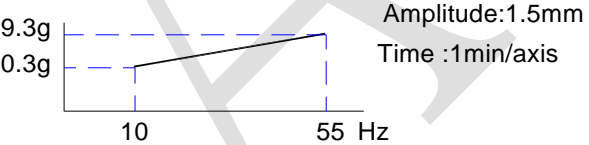
Mode: SSR



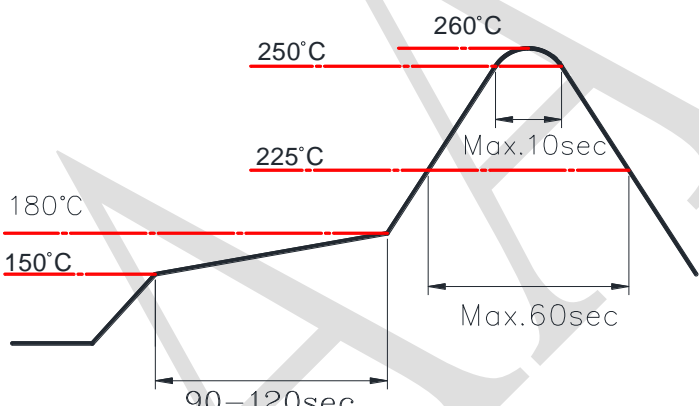
### 3. DIMENSIONS



## 4. RELIABILITY TESTS

| Item | Test conditions                | Evaluation standard   |  |
|------|--------------------------------|---|--|
| 01   | <b>High temp. Storage life</b> | The part shall be capable of withstanding a storage Temperature of +85°C for 96 hours.  | <p>1. After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L</p> <p>2. S.P.L shall be ±7 dB.</p> |
| 02   | <b>Low temp. Storage life</b>  | The part shall be capable of withstanding a storage Temperature of -40°C for 96 hours.  |  |
| 03   | <b>Temp. cycle</b>             | <p>The part shall be subjected 10 cycles.<br/>One cycle shall of ;</p>    |  |
| 04   | <b>Temp./Humidity cycle</b>    | <p>The part shall be subjected 10 cycles.<br/>One cycle shall of;</p>   |  |
| 05   | <b>Vibration</b>               |  <p>Amplitude:1.5mm<br/>Time :1min/axis</p> <p>Make this test for the directions of X, Y, Z for 2 hours each (total 6 hours).</p> |  |
| Item | Test conditions                | Evaluation standard   |  |
| 06   | <b>Free drop</b>               | The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 1 times in 3 Direction each (X.Y.Z).<br>(a total of 3 times).   |  |
| 07   | <b>Free drop (Packing)</b>     | The part only shall be dropped from a height of 100cm onto a 10mm thick wooden board 1 times in 3 axes (X.Y.Z).<br>(a total of 3 times).  |  |

## 5. CAUTIONS FOR USE

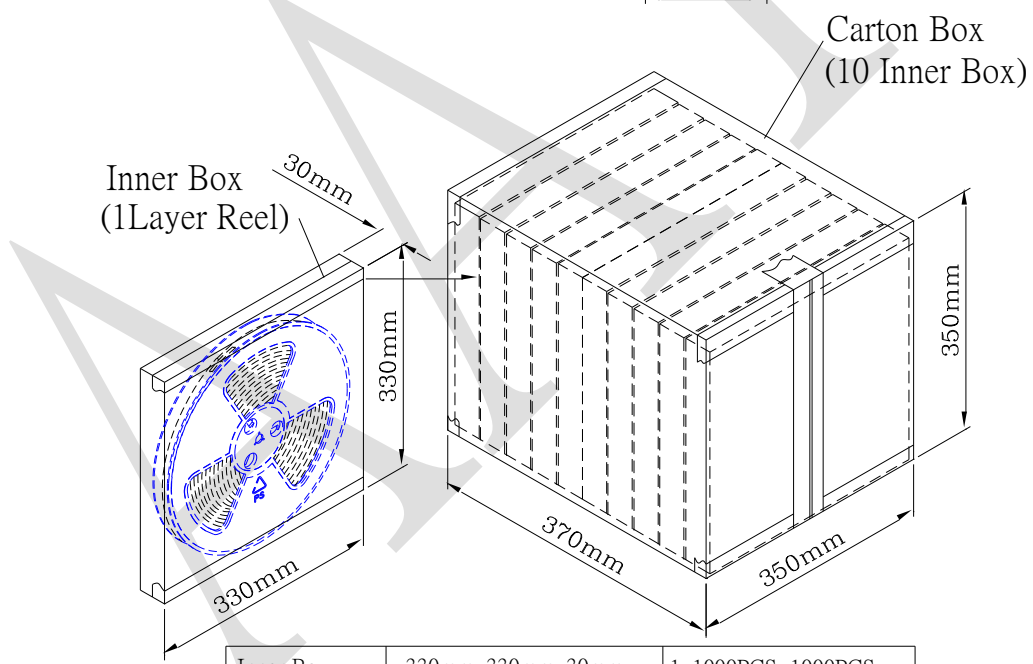
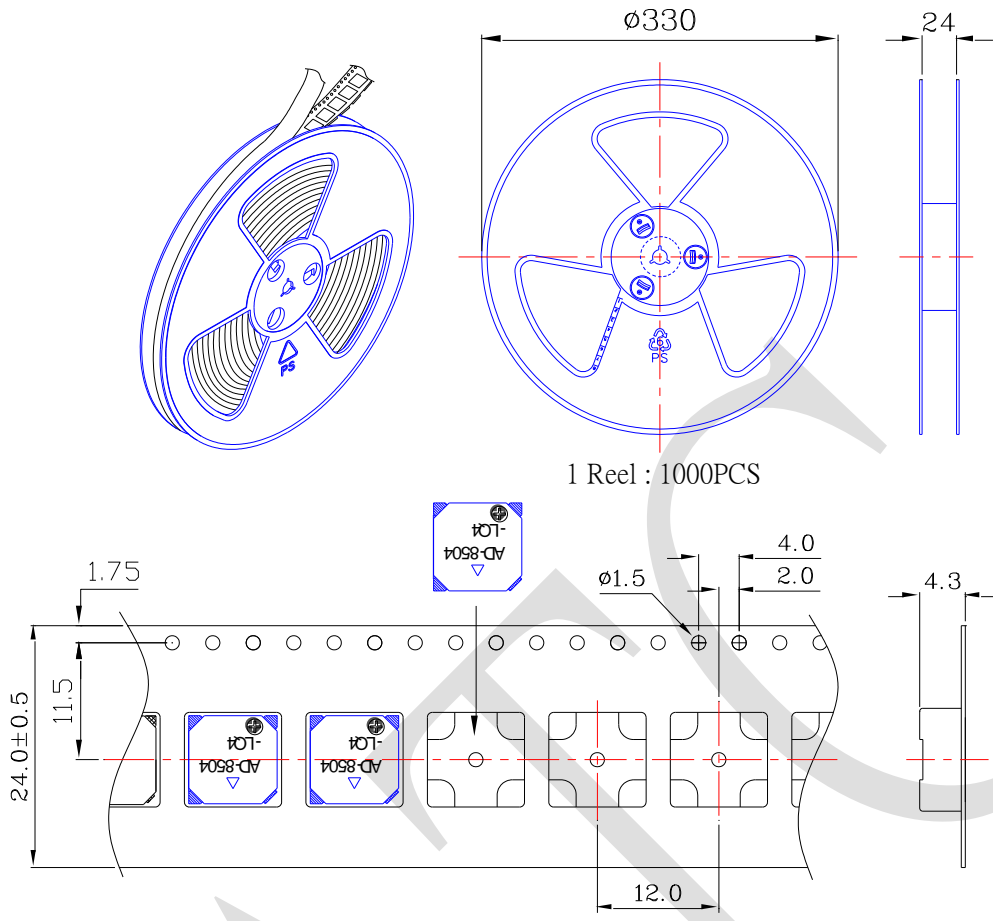
|    |  |
|----|--|
| 01 | <p>As this product is not protected from foreign material entering, please make sure that any foreign materials do not enter this product in your production processes.<br/>(e.g. magnetic powder, washing solvent, flux, corrosive gas)<br/>由於本產品不能防止異物進入，請確保任何異物不會在生產過程中進入本產品。<br/>(例如磁粉，洗滌溶劑，焊劑，腐蝕性氣體)</p>  |
| 02 | <p>The functional degradation may occur if foreign material enter it. (e.g. SPL down)<br/>如果外來物質進入，則可能發生功能退化。(例如 SPL 下降)</p>   |
| 03 | <p>Washing of the component is not acceptable. Because it is not seal.<br/>不可水洗的部件，因為它非密封。</p>   |
| 04 | <p>After solder bath, the cooling time must be longer than 2 hours before function test.<br/>測試功能前，必須在過完錫爐後並冷卻 2 小時以上。</p>   |
| 05 | <p>Soldering profile<br/>爐溫曲線<br/>Soldering into solder bath : <math>260\pm 5^{\circ}\text{C}</math>, 3~5 Sec.<br/>錫爐溫度: <math>260\pm 5^{\circ}\text{C}</math>, 3~5 Sec.</p>  <p>The graph illustrates the soldering profile with the following parameters:</p> <ul style="list-style-type: none"> <li>Initial temperature: 150°C</li> <li>Temperature rise to 180°C: 90-120sec</li> <li>Temperature rise to 225°C: 90-120sec</li> <li>Peak temperature: 260°C</li> <li>Peak duration: Max. 10sec</li> <li>Cooling phase (from 225°C to 180°C): Max. 60sec</li> </ul> |
| 06 | <p>Soldering with iron<br/>焊接<br/>Hand soldering : <math>360\pm 10^{\circ}\text{C}</math> / <math>\leq 2</math> Sec.<br/>手焊: <math>360\pm 10^{\circ}\text{C}</math> / <math>\leq 2</math> Sec.<br/>Recommend using constant searing-iron<br/>建議使用烙鐵</p>  |

|    |   |
|----|---|
| 07 | <p>AATC reserves the right to change product material without prior notice, guaranteeing the same specification. Materials are subject to change due to environmental regulations, sourcing, and process improvements.</p> <p>材料可能由於環境法規，物料及製程工藝精進而發生變動，AATC 保證相同的規格，並有權保留更改產品材料的權利，恕不另行通知。</p> |
| 08 | <p>If you need more information, please contact our technology department, thank you</p> <p>如您需要更多信息，請聯繫我們的技術部門，謝謝。</p>   |

AATC

## 5. PACKING





|            |                   |                      |
|------------|-------------------|----------------------|
| Inner Box  | 330mmx330mmx30mm  | 1x1000PCS=1000PCS    |
| Carton Box | 350mmx350mmx370mm | 10x1000PCS=10,000PCS |