## Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Specification</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage</td>
<td>Vo-p</td>
<td>5.0</td>
<td>Vo-p</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>Vo-p</td>
<td>4.0 ~ 6.0</td>
<td>At rated voltage, 2730 Hz square wave, ½ duty</td>
</tr>
<tr>
<td>Mean Current</td>
<td>mA</td>
<td>80 Max.</td>
<td>At 10cm (A-weight free air), at rated voltage 2730Hz, square wave, ½ duty</td>
</tr>
<tr>
<td>Coil Resistance</td>
<td>Ω</td>
<td>30 ±15%</td>
<td></td>
</tr>
<tr>
<td>Sound Output</td>
<td>dB</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Rated Frequency</td>
<td>Hz</td>
<td>2730</td>
<td></td>
</tr>
<tr>
<td>Operating Temp</td>
<td>℃</td>
<td>-20 ~ +60</td>
<td></td>
</tr>
<tr>
<td>Storage Temp</td>
<td>℃</td>
<td>-30 ~ +70</td>
<td></td>
</tr>
<tr>
<td>Dimension</td>
<td>mm</td>
<td>φ 9.0×H4.5</td>
<td>See attached drawing</td>
</tr>
<tr>
<td>Weight</td>
<td>gram</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td></td>
<td>PPO (Black)</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>Pin type</td>
<td>Plating Au</td>
<td>See attached drawing</td>
</tr>
<tr>
<td>Environmental Protection Regulation</td>
<td></td>
<td>RoHS</td>
<td></td>
</tr>
</tbody>
</table>

## Test condition

Temperature: 25±2 ℃  Related humidity: 65±5%  Air pressure: 86-106KPa

## Mechanical Characteristics

<table>
<thead>
<tr>
<th>Item</th>
<th>Test condition</th>
<th>Evaluation standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solderability</td>
<td>Lead terminals are immersed in rosin for 5 seconds and then immersed in the solder bath at +250±5°C for 3±1 seconds.</td>
<td>90% min. lead terminals shall be wet with solder. No interference in operation.</td>
</tr>
<tr>
<td>Soldering Heat Resistance</td>
<td>The product follows the reflow temperature curve to test its reflow thermal stability.</td>
<td></td>
</tr>
<tr>
<td>Terminal Mechanical Strength</td>
<td>The force of 9.8N is applied to each terminal in axial direction for 10 seconds .</td>
<td>No damage and cutting off.</td>
</tr>
<tr>
<td>Vibration</td>
<td>The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3G). The vibration test shall consist of 2 hours per axis in each 3 axes (X,Y,Z). Total 6 hours.</td>
<td>After the test, the part shall meet specifications without any damage in appearance and performance except SPL.</td>
</tr>
<tr>
<td>Drop Test</td>
<td>The part is dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X,Y,Z). Total of 9 times.</td>
<td>The SPL should be in ±10dBA compared with initial one.</td>
</tr>
</tbody>
</table>
Environment Test

<table>
<thead>
<tr>
<th>Item</th>
<th>Test condition</th>
<th>Evaluation standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Temp. Test</td>
<td>The part is placed in a chamber at +70℃ for 96 hours.</td>
<td>After the test, the part shall meet specifications without any degradation in appearance and performance except SPL.</td>
</tr>
<tr>
<td>Low Temp. Test</td>
<td>The part is placed in a chamber at -30℃ for 96 hours.</td>
<td></td>
</tr>
<tr>
<td>Thermal Shock</td>
<td>The part shall be subjected to 10 cycles. Each cycle shall consist of:</td>
<td>After 4 hours at +25℃, the SPL should be in ±10dBA compared with initial one.</td>
</tr>
</tbody>
</table>

Temp./Humidity Cycle

The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of:

Reliability Test

<table>
<thead>
<tr>
<th>Item</th>
<th>Test condition</th>
<th>Evaluation standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Life Test</td>
<td>Ordinary Temperature The part shall be subjected to 96 hours of continuous operation at +25 ±10℃.</td>
<td>After the test, the part shall meet specifications without any degradation in appearance and performance except SPL. After 4 hours at +25℃, the SPL should be in ±10dBA compared with initial one.</td>
</tr>
<tr>
<td></td>
<td>High Temperature The part shall be subjected to 72 hours of continuous operation at +60℃ at 5.0V, 2730Hz applied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low Temperature The part shall be subjected to 72 hours of continuous operation at -20℃ at 5.0V, 2730Hz applied.</td>
<td></td>
</tr>
</tbody>
</table>

Standard test condition:

- a) Temperature: +5--+35℃
- b) Humidity: 45~85%
- c) Pressure: 86~106KPa
Recommended 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**

S.P.L Measuring Circuit

Input Signal: 5.0 Vp-p, square wave, ½ duty, 2730Hz

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**Inspection Fixture**

Mic: RION S.P.L meter UC30 or equivalent

S.G: Hewlett Packard 33120A Function Generator or equivalent
This document contains the technical specifications for the electromagnetic buzzer.

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www.soberton.com
**Dimensions**

Tolerance: ±0.5 (unit:mm)

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**No.** | **Part Name** | **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 | NdFeB | 1
6 | Case | PPO | 1
7 | Diaphragm | Ferrum | 1
8 | Case | PPO | 1
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Packing

Packing Box | L x W x H (mm) | Pieces
--- | --- | ---
Tray | 190 x 190 x 25 | 100
Inner cartons | 210 x 210 x 220 | 1,500
Outer cartons | 430 x 430 x 250 | 6,000