### Dynamic Speaker (Non-washable) SAE series

**SAE-20AH**

As for non-washable products, dip soldering should not be implemented.

- **Heating Resistant**
- **Patent**
- **Reflow**

**Square/Sine Wave Drive**

#### Frequency Response

![Frequency Response Graph](image)

#### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>SAE-20AH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Input (W)</td>
<td>0.8</td>
</tr>
<tr>
<td>Max Input (W)</td>
<td>1.0</td>
</tr>
<tr>
<td>Impedance (Ω)</td>
<td>8 ± 1.6</td>
</tr>
<tr>
<td>Resonance Frequency (Hz)</td>
<td>850 ± 100</td>
</tr>
<tr>
<td>SPL at MIN 10cm (dBA)</td>
<td>95.5 ± 3</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>-40 ~ +85</td>
</tr>
<tr>
<td>Preservation Temperature (°C)</td>
<td>-40 ~ +105</td>
</tr>
<tr>
<td>Mass (g)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

※Value applying rated power (sine wave)

#### Dimensions

- **Size**: 20 × 20 × 4.5mm

*Unit*: mm, *housing material*: LCP

### Dynamic Speaker (Non-washable) SAN series

**SAN-15A**

As for non-washable products, dip soldering should not be implemented.

- **Heating Resistant**
- **Patent**
- **Reflow**

**Square/Sine Wave Drive**

#### Frequency Response

![Frequency Response Graph](image)

#### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>SAN-15A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Input (W)</td>
<td>0.5</td>
</tr>
<tr>
<td>Max Input (W)</td>
<td>0.8</td>
</tr>
<tr>
<td>Impedance (Ω)</td>
<td>8 ± 1.6</td>
</tr>
<tr>
<td>Resonance Frequency (Hz)</td>
<td>800 ± 100</td>
</tr>
<tr>
<td>SPL at MIN 10cm (dBA)</td>
<td>90 ± 3</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>-30 ~ +85</td>
</tr>
<tr>
<td>Preservation Temperature (°C)</td>
<td>-40 ~ +105</td>
</tr>
<tr>
<td>Mass (g)</td>
<td>1.5</td>
</tr>
</tbody>
</table>

※Value applying rated power (sine wave)

#### Dimensions

- **Size**: 15 × 15 × 4mm

*Unit*: mm, *housing material*: PA6T

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**Magnetic Sounder**

**Patent**

- **Reflow**

**Heat Resistant**

**Dynamic Speaker**

**Non-washable type**

**Washable type**

**Technical data**

- **Magnetic Buzzer**

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**Sound Port**: 

- φ13 20
- φ 8.6
- 24 × φ 1.2

- **Dummy Lead**
- **Lead**

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**Dimensions**: 

- **Size**: 20 × 20 × 4.5mm

*Unit*: mm, *housing material*: LCP
**Dynamic Speaker (Non-washable)**

**SAC-C**

**SAC-D**

As for non-washable products, dip soldering should not be implemented.

- **Heat Resistant**
- **Patent**
- **Square/Sine Wave Drive**

### Frequency Response

**SAC-30C**

![Frequency Response Graph](image1)

**SAC-30D**

![Frequency Response Graph](image2)

### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>SAC-30C</th>
<th>SAC-30D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Input</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Max Input</td>
<td>0.2~0.4</td>
<td>0.2~0.4</td>
</tr>
<tr>
<td>Impedance (Ω)</td>
<td>28±4</td>
<td>8±2</td>
</tr>
<tr>
<td>Resonance Frequency (Hz)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>SPL at MIN10cm (dBA)</td>
<td>≥86</td>
<td>≥86</td>
</tr>
<tr>
<td>Operating Temperature (℃)</td>
<td>-40~+105</td>
<td>-40~+105</td>
</tr>
<tr>
<td>Preservation Temperature (℃)</td>
<td>-40~+120</td>
<td>-40~+120</td>
</tr>
<tr>
<td>Mass (g)</td>
<td>8.3</td>
<td>8.3</td>
</tr>
</tbody>
</table>

*Value applying rated power (sine wave)*

### Dimensions

- **SAC-30C**
  - **Size**: φ33.8×7mm

- **SAC-30D**
  - **Size**: φ31.5×14.8mm

*Consult us for the details of variation and installation method.*
Dynamic Speaker (Non-washable)

**SAG**

**SAG-40A**
As for non-washable products, dip soldering should not be implemented.
- Heat Resistant
- Patent
- Square/Sine Wave Drive

**SCG**

**SCG-16A**
As for non-washable products, dip soldering should not be implemented.
- Heat Resistant
- Patent
- Square/Sine Wave Drive

### Frequency Response

### Specifications

**SAG-40A**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Input (W)</td>
<td>0.5</td>
</tr>
<tr>
<td>Max Input (W)</td>
<td>—</td>
</tr>
<tr>
<td>Impedance (Ω)</td>
<td>8±1.2</td>
</tr>
<tr>
<td>Resonance Frequency (Hz)</td>
<td>500±100</td>
</tr>
<tr>
<td>SPL at MIN10cm (dBA)</td>
<td>90</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>—40～+105</td>
</tr>
<tr>
<td>Preservation Temperature (°C)</td>
<td>—40～+120</td>
</tr>
<tr>
<td>Mass (g)</td>
<td>12</td>
</tr>
</tbody>
</table>

*Value applying rated power(sine wave)*

**Dimensions**

- Size: φ40×10.9mm
- Unit: mm/housing material: PP

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**SCG-16B-LS**
Gasket + Leaf Spring

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*Consult us for the details of variation and installation method.*