

# Buzzer, Piezo

## SB120PP-22070-S100

### Description

SMD piezo buzzers are often used in electronic devices such as mobile phones, tablets, laptops, and wearable devices to provide audible notifications for incoming calls, messages, alarms, and other alerts.



### Typical applications

- Electronic devices
  - Industrial and commercial equipment
  - Home appliances
  - Toys and games
  - Sound effects
  - Audio Alerts
  - Warning Signals
  - Audio Feedback
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Passive / active ?

### Features

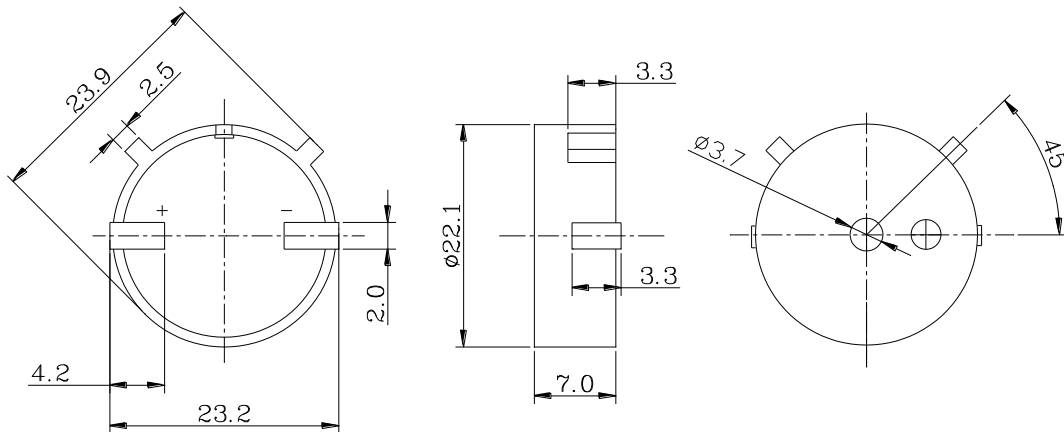
Item	Specification	Unit	Condition
Oscillation Frequency	4000	Hz	Square Wave
Operating Voltage	1~25	Vp-p	
Rated Voltage	12	Vp-p	
Current Consumption	MAX. 5	mA	at Rated Voltage
Sound Pressure Level	MIN. 100	dB	at 10cm at Rated Voltage
Electrostatic Capacity	19000 ±30%	pF	at 100Hz 1V
Operating Temperature	-30 ~ +70	°C	
Storage Temperature	-40 ~ +80	°C	

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<b>Dimension</b>	Φ22 x H7	mm	See appearance drawing
<b>Weight</b>	4.0	gram	max
<b>Housing Material</b>	PPS (Black )		UL94-V0
<b>Leading Pin</b>	Tin Plated Brass(Sn)		See appearance drawing
<b>Environmental Protection Regulation</b>	RoHS		

### Appearance drawing



Tol : ± 0.5 Unit: mm

### Testing method

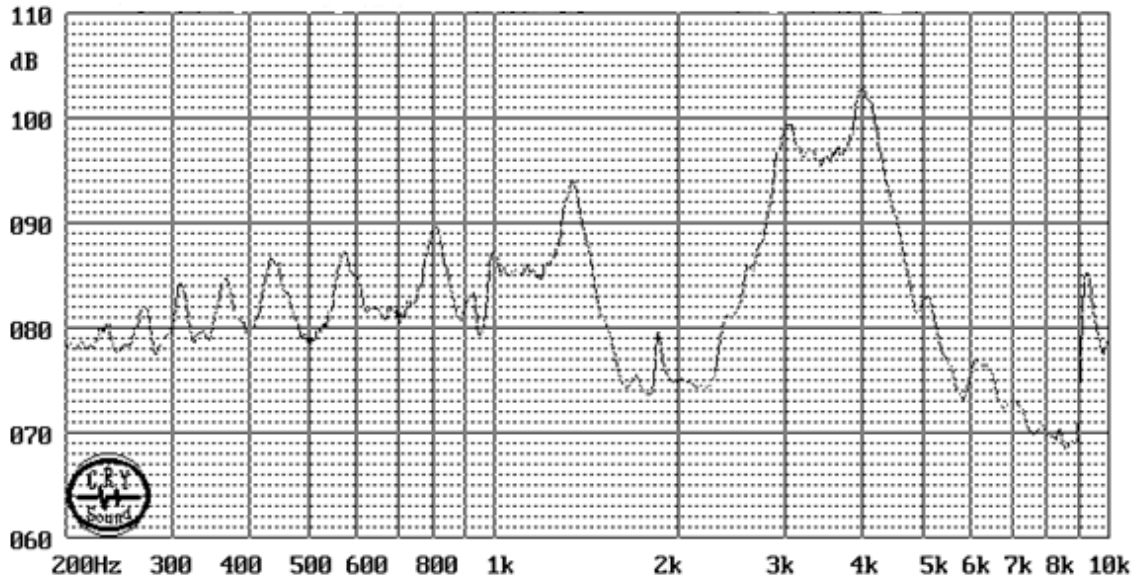
Standard Measurement conditions

Temperature: 25±2°C  
 Humidity: 45-65%

### Acoustic Characteristics

The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments at 10 cm

Typical Frequency Response Curve



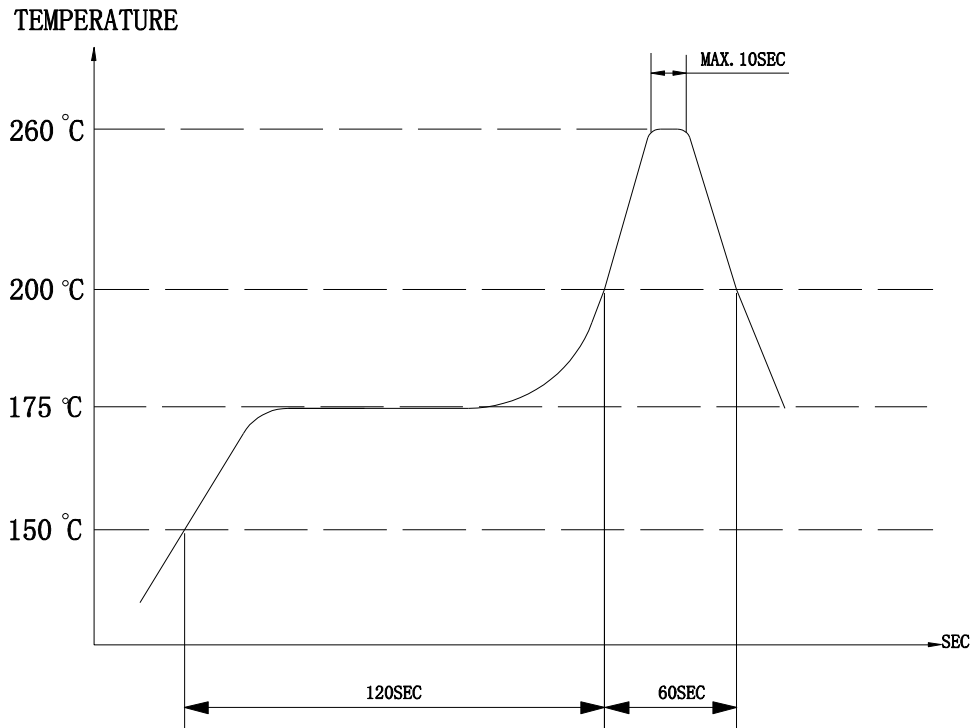
Soldering Condition

Recommendable reflow soldering condition is as follows (Reflow soldering is twice)

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

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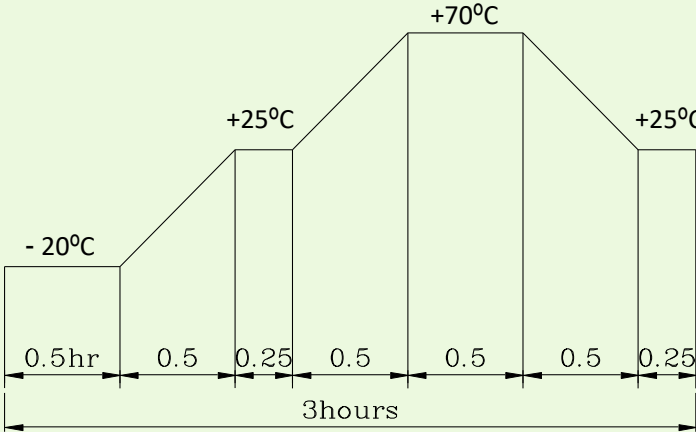
SB120PP-22070-S100



Heat resistant line (Used when heat resistant reliability test is performed).

Manual soldering temperature 350 °C within 5 sec.

**Reliability test**

Item	Test condition and requirement
<b>High Temperature Test (Storage)</b>	After being placed in a chamber with $80\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$ .
<b>Low Temperature Test (Storage)</b>	After being Placed in a chamber with $-30\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$ .
<b>Humidity Test</b>	After being Placed in a chamber with 90-95% R.H. at $40\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$ .
<b>Temperature Cycle Test</b>	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of :</p>  <p>Allowable variation of SPL after test: <math>&lt; 10\text{dB}</math>.</p>
<b>Drop Test</b>	<p>Drop on a hard wood board of 4 cm thick, any directions ,6 times, at the height of 75 cm .</p> <p>Allowable variation of SPL after test: <math>\pm 10\text{dB}</math>.</p>
<b>Vibration Test</b>	<p>After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours .</p>

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	Allowable variation of SPL after test: $\pm 10\text{dB}$ .
<b>Solderability Test</b>	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+300\pm 5^\circ\text{C}$ for $3\pm 1$ seconds . 90% min. lead terminals shall be wet with solder (Except the edge of terminals).
<b>Terminal Strength Pulling Test</b>	The force of 9.8N (1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

## Test condition

### Standard Test Condition:

Temperature:	+5 ~ +35°C
Humidity:	45 - 85%
Pressure:	860 - 1060 mbar

### Judgment Test Condition:

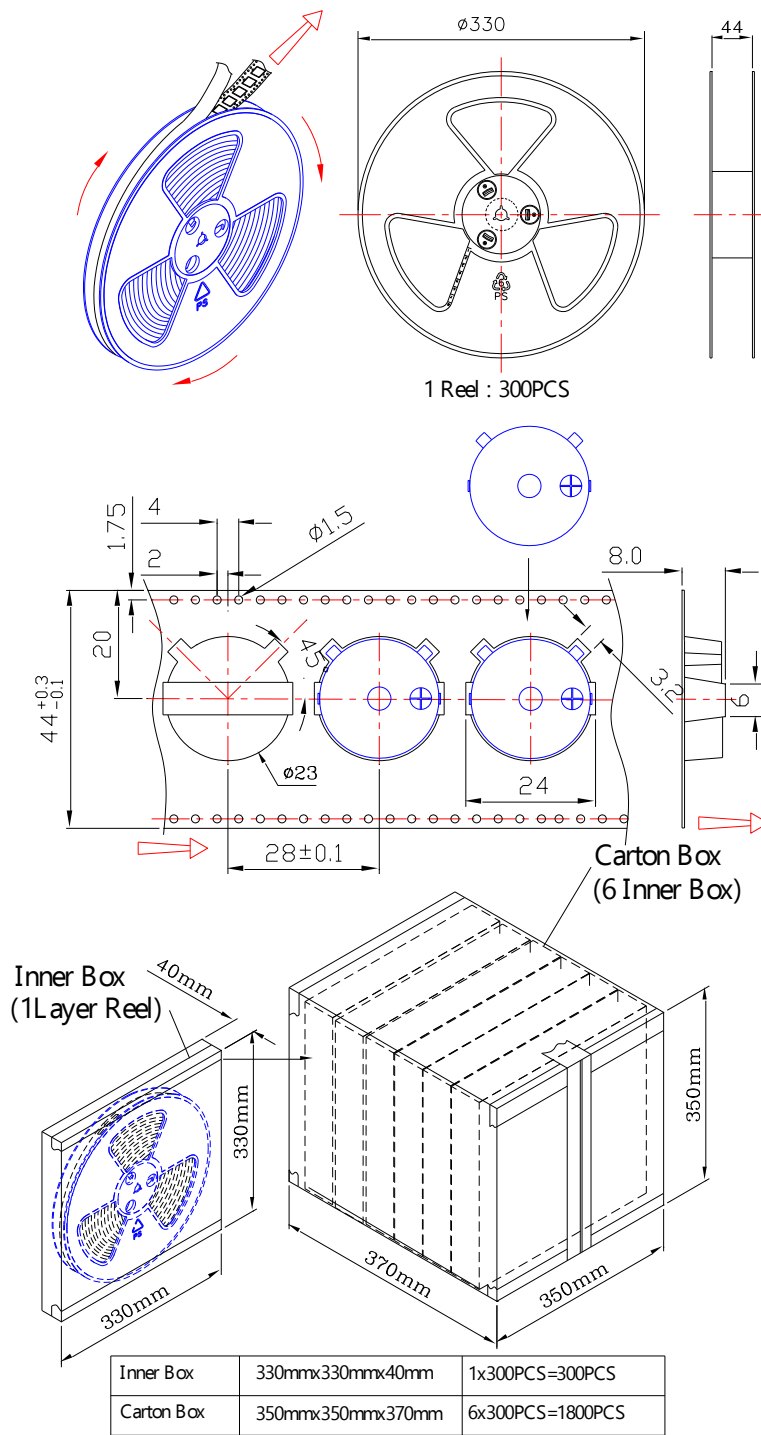
Temperature:	+25 $\pm$ 2°C
Humidity:	60 - 70%
Pressure:	860-1060 mbar

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## Packing standard



## Part number

SBXXXXX-XXX-XX

SB	Buzzer
XXX	Rated power
X	Passive / Active
X	Piezo / Magnetic
XXXXX	Size
X	THT / SMD
XX	dB @ rated power

## Ordering information

Ordering can be done via [www.summit-electronics.com](http://www.summit-electronics.com) or via [info@summit-electronics.com](mailto:info@summit-electronics.com). Please contact us for more information. Customization of the product is available on request.

## Technical support

For all product questions please contact us via [info@summit-electronics.com](mailto:info@summit-electronics.com)

## Document revision

Rev	Date	Changes
V01.00	06-04-2023	First issue of document