Buzzer, Piezo
SB0240AP-3024-W105

Description

A piezo buzzer generates sound using a piezoelectric material that vibrates when an electrical voltage is applied. The oscillating vibrations produce audible tones. Compact and energy-efficient, it converts electrical signals into acoustic signals, making it ideal for alarms, notifications, and user interface feedback in various electronic devices.



Typical applications

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

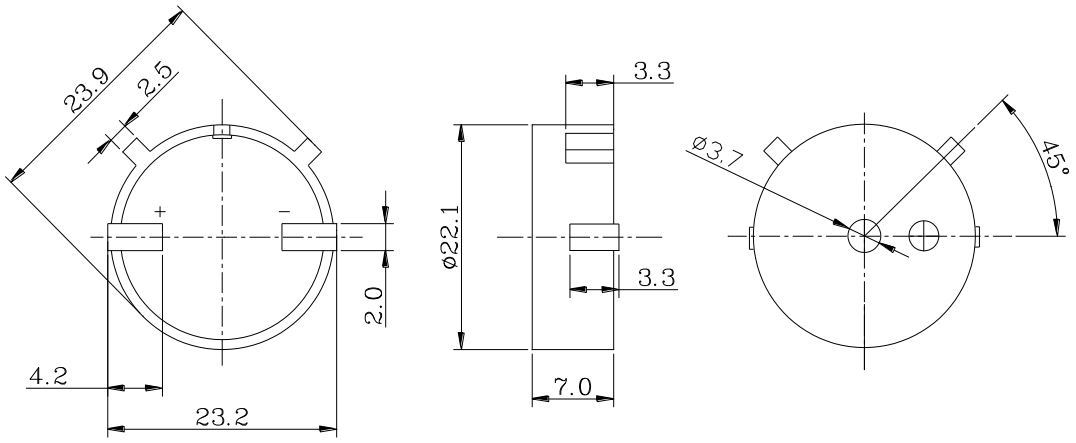
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Features

Item	Unit	Specification	Condition
Oscillation Frequency	Hz	4000	Square Wave
Operating Voltage	Vp-p	1~25	
Rated Voltage	Vp-p	12	
Current Consumption	mA	MAX. 5	at Rated Voltage
Sound Pressure Level	dB	MIN. 100	at 10cm at Rated Voltage
Electrostatic Capacity	pF	19000±30%	at 100Hz 1V
Operating Temperature	°C	-40~ +85	
Storage Temperature	°C	-40 ~ +85	
Dimension	Mm	ø22 x H7	See appearance drawing
Weight (MAX)	Gram	4.0	
Housing Material		PPS(Black)	UL94-V0
Leading Pin		Tin Plated Gold(Au)	See appearance drawing
Environmental Protection Regulation		RoHS	

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Appearance drawing



Tol : ±

0.5 Unit: mm

Testing method

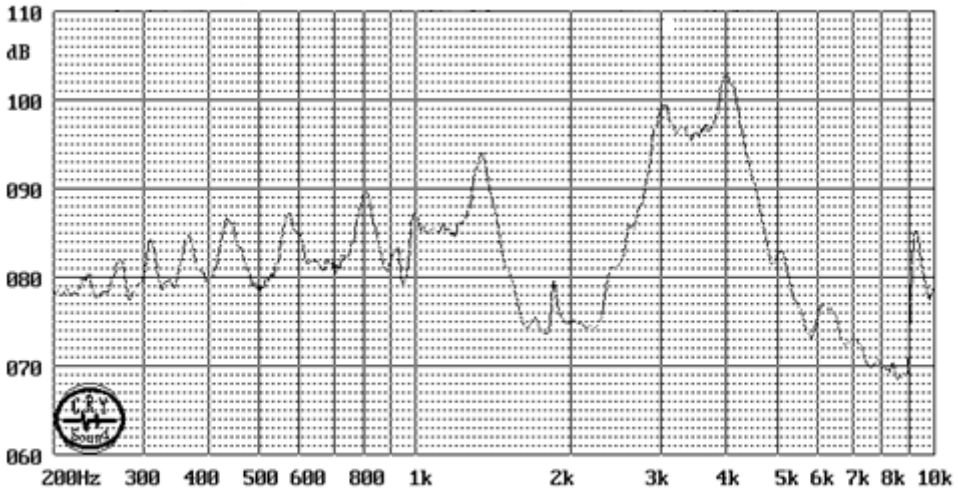
Standard Measurement conditions

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.

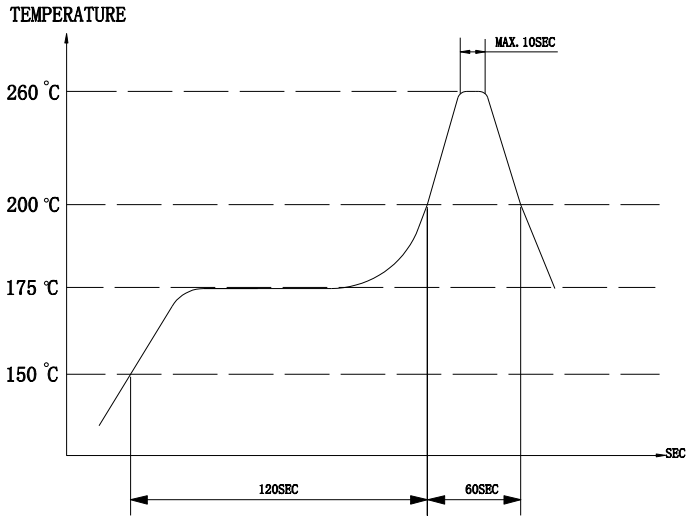
Typical Frequency Response Curve



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.

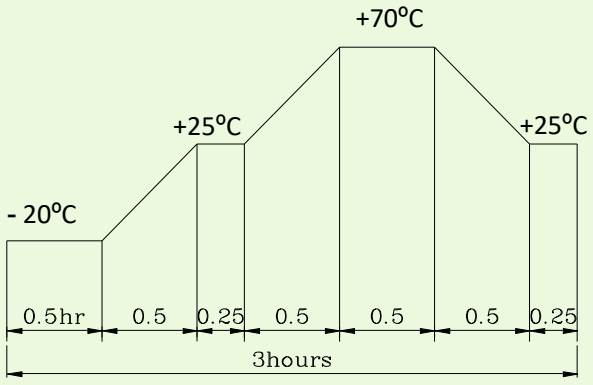


Heat resistant line (Used when heat resistant reliability test is performed)

Manual soldering Manual soldering temperature 350 ^{o}C within 5 sec.

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Reliability test

ITEM	TEST CONDITION AND REQUIREMENT
High Temperature Test (Storage)	After Being Placed In A Chamber With 80 ±2°C For 96 Hours And Then Being Placed In Normal Condition For 2 Hours. Allowable Variation Of Spl After Test: <10db.
Low Temperature Test (Storage)	After Being Placed In A Chamber With -30±2°C For 96 Hours And Then Being Placed In Normal Condition For 2 Hours. Allowable Variation Of Spl After Test: <10db.
Humidity Test	After Being Placed In A Chamber With 90-95% R.H. At 40 ± 2°C For 96 Hours And Then Being Placed In Normal Condition For 2 Hours. Allowable Variation Of Spl After Test: <10db.
Temperature Cycle Test	The Part Shall Be Subjected To 5 Cycles. One Cycle Shall Be Consist Of :  Allowable Variation Of Spl After Test: <10db.
Drop Test	Drop On A Hard Wood Board Of 4cm Thick, Any Directions ,6 Times, At The Height Of 75cm. Allowable Variation Of Spl After Test: <10db.
Vibration Test	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 . Allowable Variation Of Spl After Test: <10db.
Solderabilitytest	Lead Terminals Are Immersed In Rosin For 5 Seconds And Then Immersed In Solder Bath Of +300±5°C For 3,1 Seconds . 90% Min. Lead Terminals Shall Be Wet With Solder (Except The Edge Of Terminals).

Terminal Strength Pulling Test	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

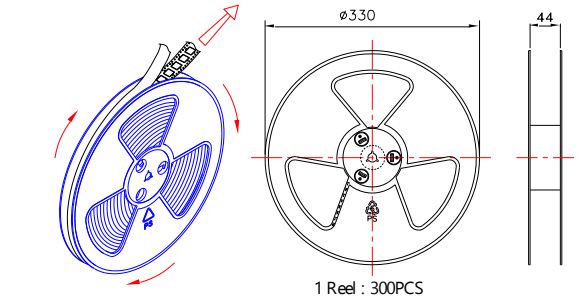
Temperature:	+5 ~ +35°C
Humidity:	45 - 85%
Pressure:	860 - 1060mbar

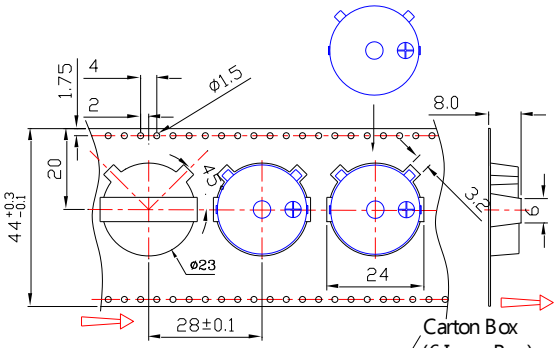
Judgment Test Condition

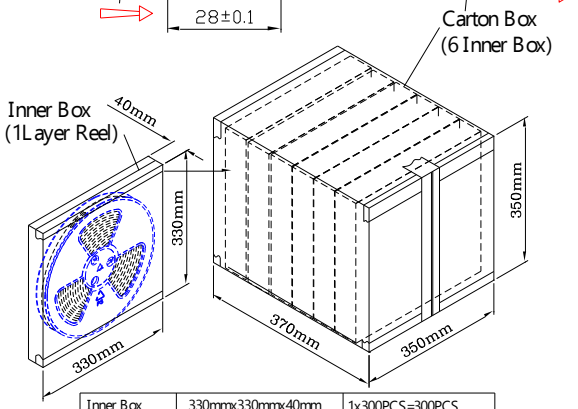
Temperature:	+25 ± 2°C
Humidity:	60 - 70%
Pressure:	860 - 1060mbar

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Packing Standard







Inner Box	330mmx330mmx40mm	1x300PCS=300PCS
Carton Box	350mmx350mmx370mm	6x300PCS=1800PCS

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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 or via info@summit-electronics.com. Please contact us for more information. Customisation of the product is available on request.

Technical support

For all product questions please contact us via info@summit-electronics.com

Document revision

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