



soberton inc.

# ELECTRO MAGNETIC BUZZER

Acoustic Product Specification

Product Number: WT-1209T



Release | Revision: A/2022

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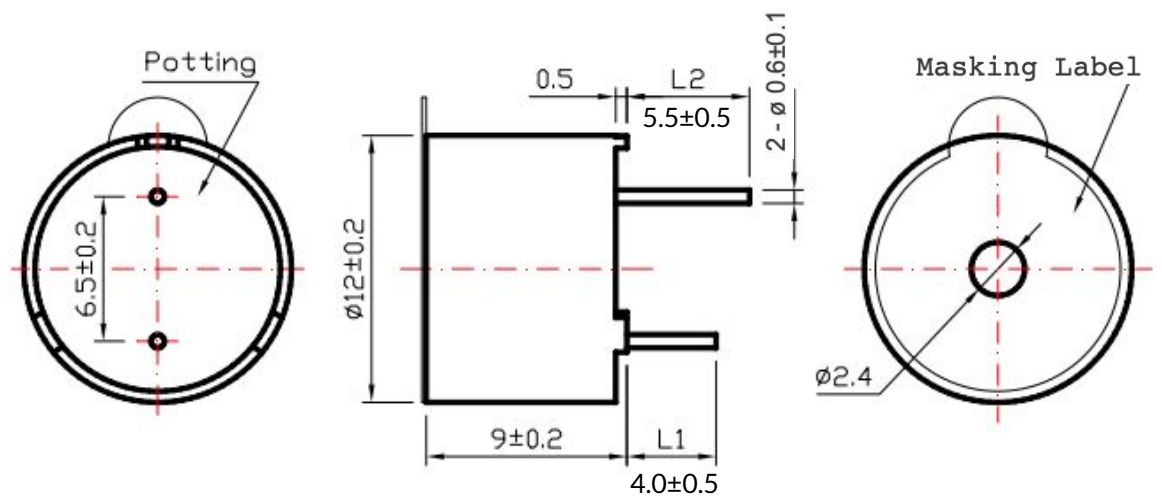
## Specifications

Item	Unit	Specifications
Rated Voltage	Vo-p	5
Operating Voltage	Vo-p	4 ~ 7
Rated Current	mA	Max. 70 at 2.4KHz 50% duty cycle, square wave, 5 Vo-p
Sound Output	dB	Min. 85 at 2.4KHz 50% duty cycle, square wave, 5 Vo-p
Coil Resistance	Ω	45±4
Resonant Frequency	Hz	2400
Operating Temperature	°C	-20 ~ +70
Storage Temperature	°C	-30 ~ +80
Dimensions	mm	Φ12.0 × H9.0
Pin Length	mm	L1= 4.0±0.5, L2= 5.5±0.5, Φ=0.6±0.1
Housing Material		Black Noryl
Net Weight	gram	Approx. 1.5
Terminal		Pin Type
Environmental Protection Regulation		RoHS 2.0

## Dimensions

Unit mm

Tolerance ±0.5mm, except where specified



Housing Material: Black Noryl



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## Reliability Test

After any of the following tests the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall meet the specifications and shall not deviate more than -10dB from the initial value.

### Standard Temperature Life Test

The part shall be subjected to 96 hours at  $25\pm 10^{\circ}\text{C}$ .

Input rated voltage: 5 Vo-p

Resonant frequency: 2400Hz, 50% duty cycle, square wave.

### High Temperature Test

The part shall be capable of withstanding a storage temperature of  $+80^{\circ}\text{C}$  for 96 hours.

### Low Temperature Test

The part shall be capable of withstanding a storage temperature of  $-30^{\circ}\text{C}$  for 96 hours.

### Humidity Test

Temperature  $+40^{\circ}\text{C}\pm 3^{\circ}\text{C}$

Relative Humidity 90% ~ 95%

Duration 48 hours and exposure to room temperature for 6 hours

### Temperature Shock Test

Per cycle

$70^{\circ}\text{C}$  / 1 hour  $\rightarrow$   $25^{\circ}\text{C}$  / 3 hours  $\rightarrow$   $-30^{\circ}\text{C}$  / 1 hour  $\rightarrow$   $25^{\circ}\text{C}$  / 3 hours

Total cycle 10 cycles

### Drop Test

Standard Packaging from 1.2m

Drop on hardwood or board of 5cm thick, three sides, six plain

### Vibration Test

Vibration 1000 cycles/min.

Amplitude 1.5mm

Duration 1 hour in each 3 axes

### Note

Please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. Contamination may result in a loss of some or all audio output.



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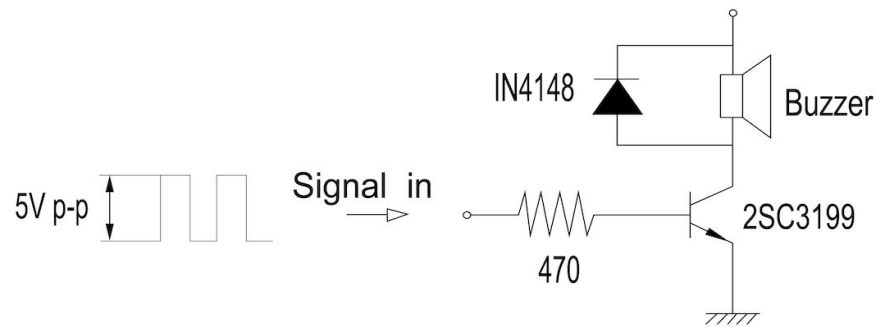
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## Electrical and Acoustical Measuring Condition

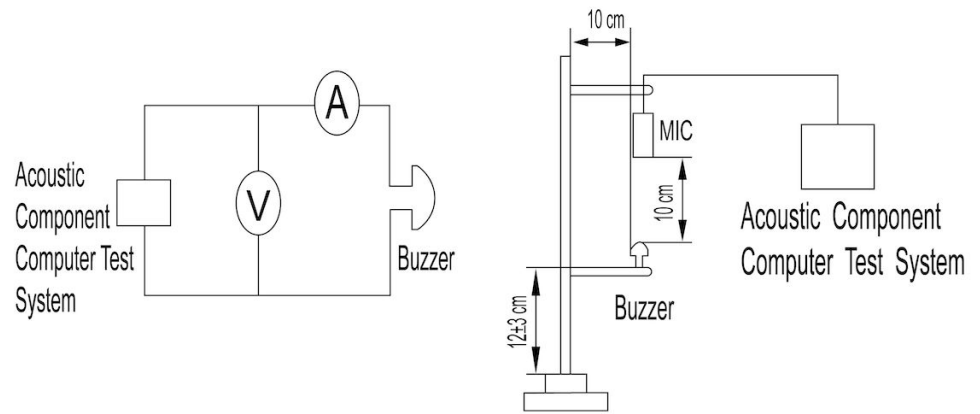
### Recommended Driving Circuit

Resonant frequency, 50% duty cycle, square wave.

Signal amplitude should be large enough to saturate the transistor.

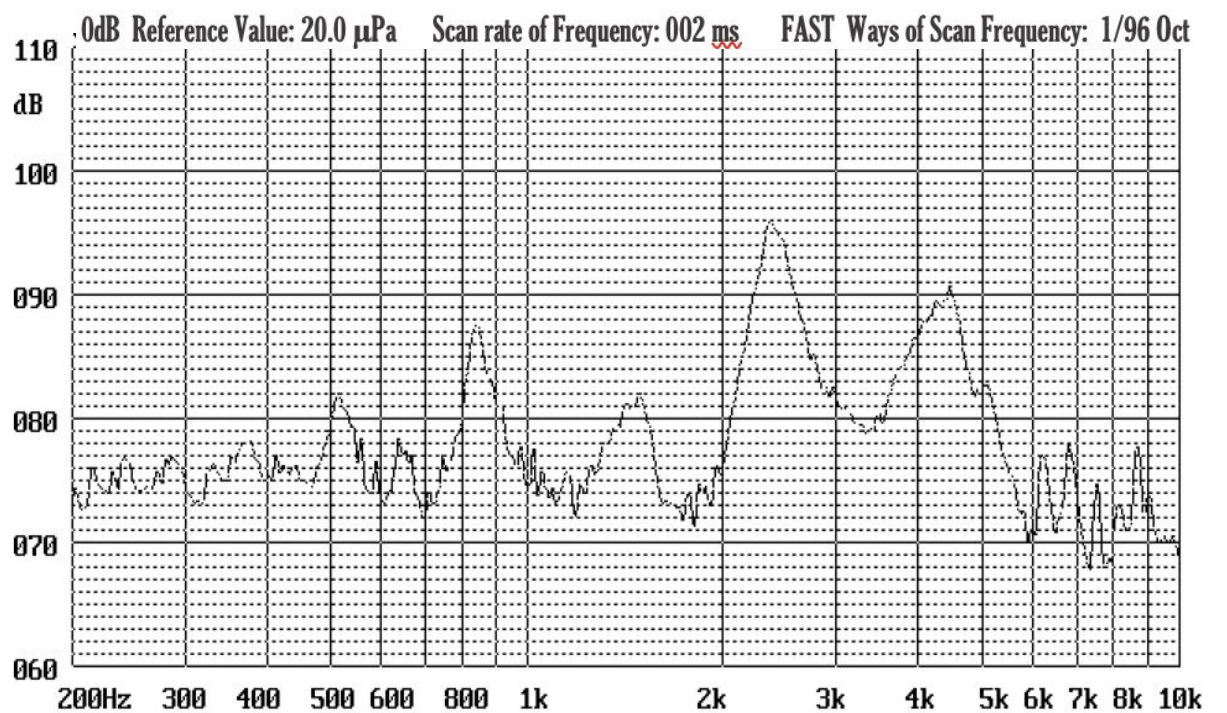


### Recommended Setting

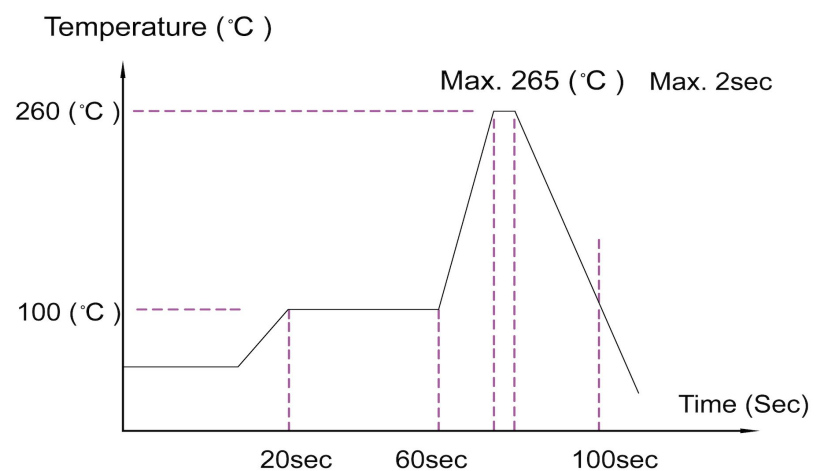


## Frequency Response

5 Vo-p, 50% duty cycle, square wave, 10cm



## Recommended Wave Soldering Temperature





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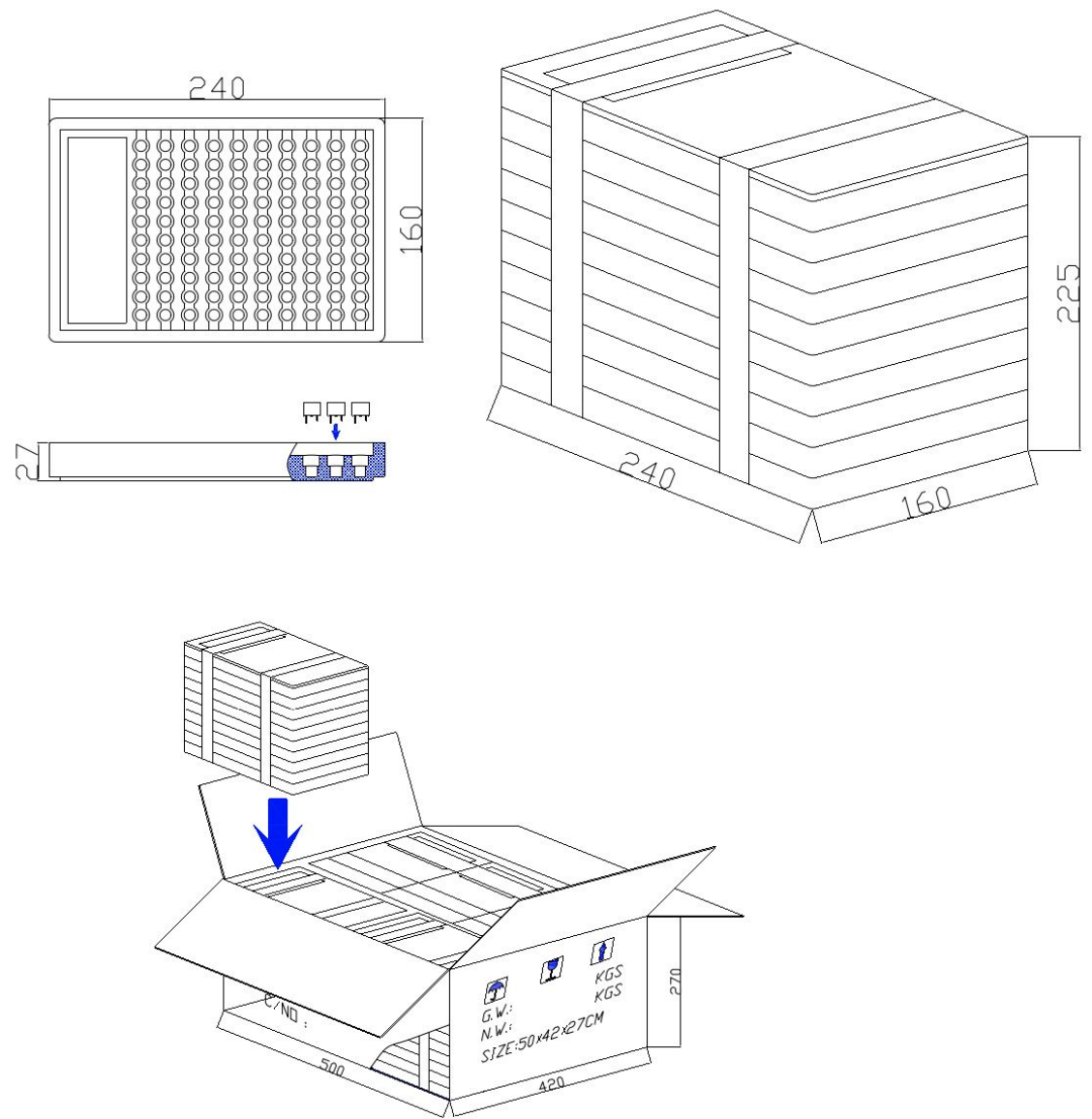
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## Packing



Packing Method	Quantity (pc)	Measurement (mm)
Per Tray	100	240x160x27
Bundle	1000	240x160x225
Carton	5000	500x420x270