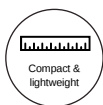




MT SERIES MAGNETIC TRANSDUCERS

Externally-driven magnetic transducers with rich sound quality and low frequency response



Applications

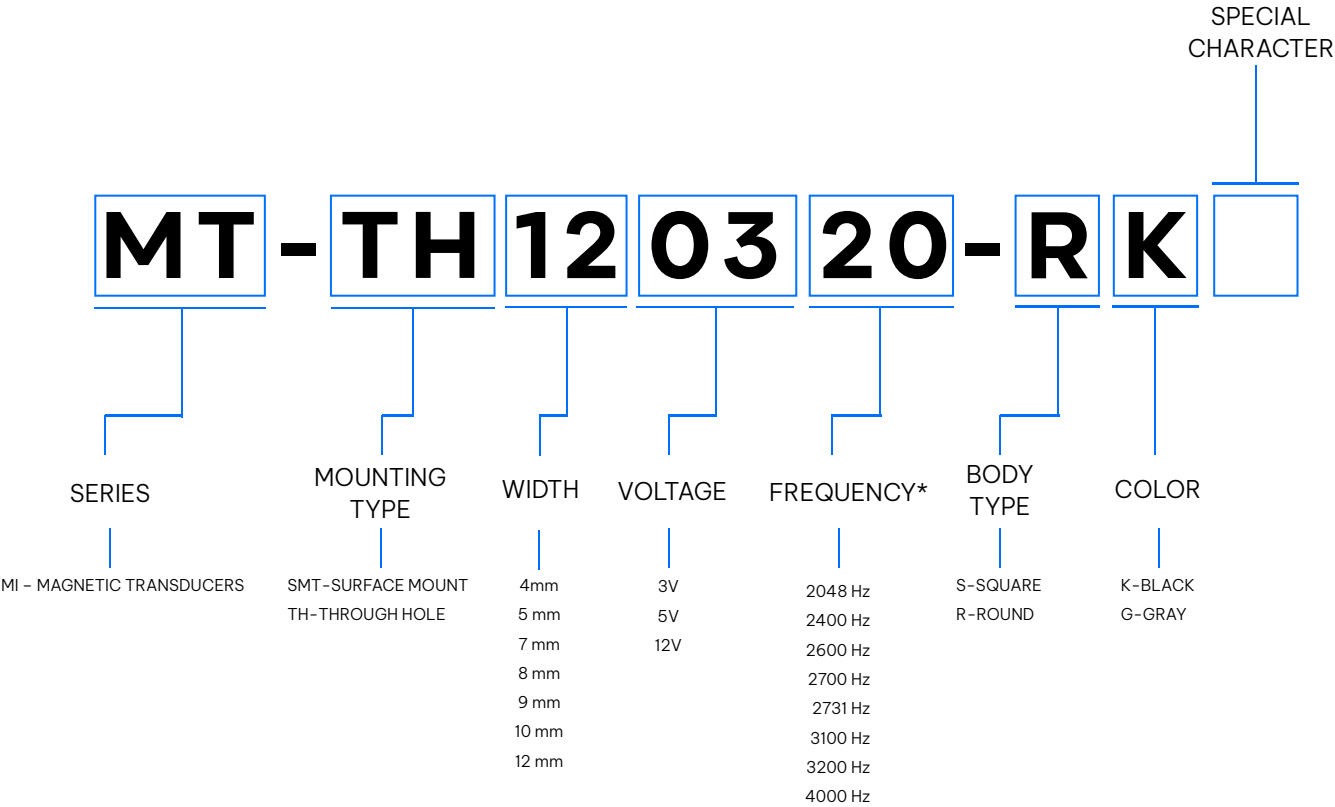
- Industrial
- Medical
- Automotive
- Automation & Controls
- Communications
- Robotics
- IoT
- Security Systems

Key Features

- External driving circuitry for flexible integration into existing designs
- Low-profile options
- Custom SPL (sound pressure level) capability
- High pitch tones, customization friendly
- Available sizes 4.0 to 16mm, round or square types
- SMD or Through-hole mounting options
- ROHS compliant



SKU Offering



*The frequency is specified using a two-digit code. The code represents the frequency value in hundreds of Hertz (×100 Hz). Unless otherwise stated, all frequency codes follow this convention.

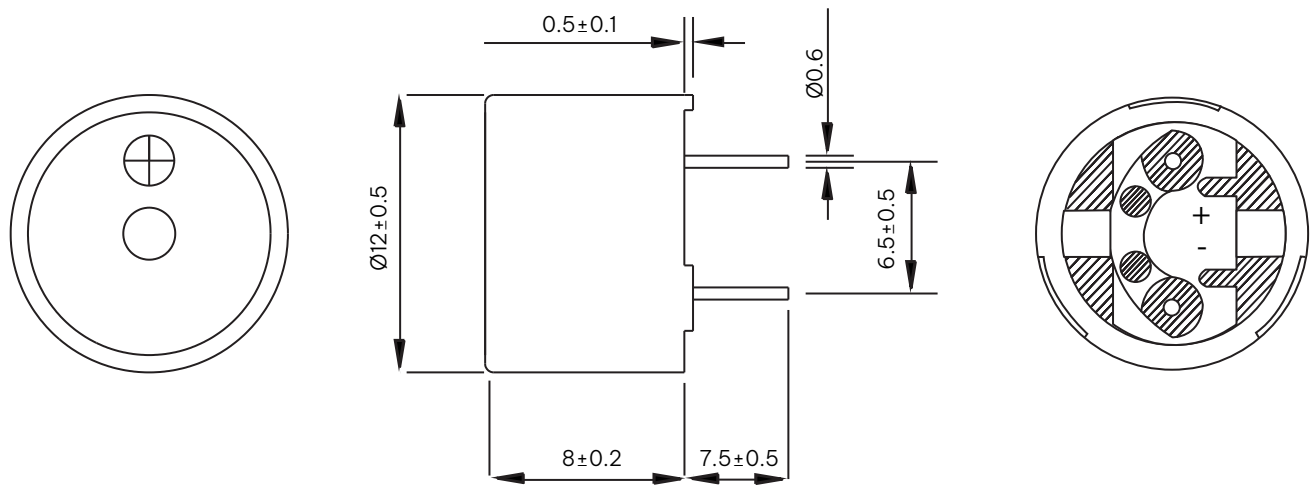


Part Number	Mounting Type	Width	Voltage	Frecuency (Hz)	Body Type	Color	Page
MT-TH12-0320-RK	Through Hole	12mm	3V	2048	Round	Black	4
MT-TH16-0520-RK	Through Hole	16mm	5V	2048	Round	Black	5
MT-SMT12-0524-SG	Surface Mount	12.6mm x 12.6mm	5V	2400	Square	Gray	6
MT-TH12-0524-RK	Through Hole	12mm	5V	2400	Round	Black	7
MT-TH12-1224-RK	Through Hole	12mm	12V	2400	Round	Black	8
MT-TH12-0126-RK	Through Hole	12mm	1.5V	2600	Round	Black	19
MT-SMT07-0327-SK	Surface Mount	7.5mm x 7.5mm	3.6V	2700	Square	Black	10
MT-SMT08-0327-SK	Surface Mount	8.5mm x 8.5mm	3V	2700	Square	Black	11
MT-SMT08-0327-SKV	Surface Mount	8.5mm x 8.5mm	3.6V	2700	Square	Black	12
MT-SMT08-0527-SK	Surface Mount	8.5mm x 8.5mm	5V	2700	Square	Black	13
MT-SMT10-0327-SK	Surface Mount	10mm x 10mm	3V	2700	Square	Black	14
MT-SMT10-0527-SK	Surface Mount	10mm x 10mm	5V	2700	Square	Black	15
MT-SMT09-0327-RKT	Surface Mount	9.0mm	3V	2731	Round (T shape)	Black	16
MT-TH09-0327-RK	Through Hole	9.0mm	3V	2731	Round	Black	17
MT-TH09-0527-RK	Through Hole	9.2mm	5V	2731	Round	Black	18
MT-SMT08-0331-SK	Surface Mount	8.5mm x 8.5mm	3.6V	3100	Square	Black	19
MT-TH09-0532-RK	Through Hole	9.0mm	5V	3200	Round (T shape)	Black	20
MT-SMT04-0340-SK	Surface Mount	4.0mm x 4.0mm	3V	4000	Square	Black	21
MT-SMT05-0340-SK	Surface Mount	5.0mm x 5.0mm	3V	4000	Square	Black	22
MT-SMT05-0340-SKT	Surface Mount	5.0mm x 5.0mm	3.6V	4000	Square	Black	23
MT-SMT08-0440-SK	Surface Mount	8.5mm x 8.5mm	4.4V	4000	Square	Black	24



Product Dimensions

MT-TH12-0320-RK

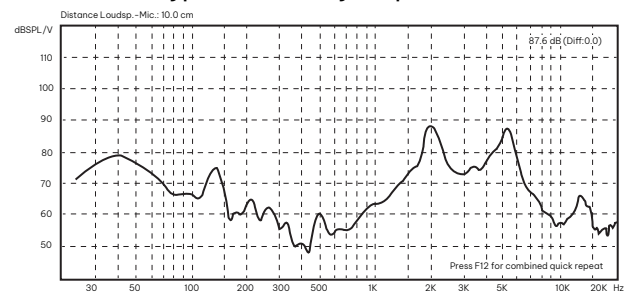


Unit: mm

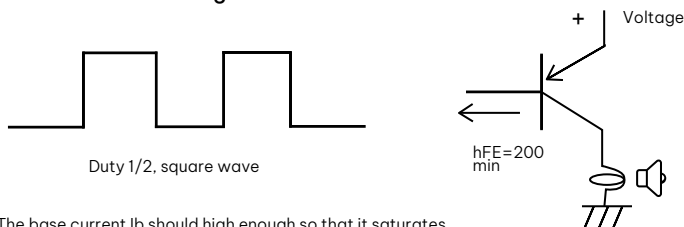
Electrical Characteristics	
Oscillation Frequency (Hz)	2048
Operating Voltage (Vo-p)	2.0 ~ 6.0
Rated Voltage (Vo-p)	3.0
Current Consumption (mA/max)	35 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	42 ± 6.3
Operating Temperature ($^{\circ}\text{C}$)	$-40 \sim +85$
Storage Temperature ($^{\circ}\text{C}$)	$-50 \sim +95$
Condition by wave ($^{\circ}\text{C}$)	$260 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	1.2

Typical Frequency Response Curve



Recommend Driving Circuit



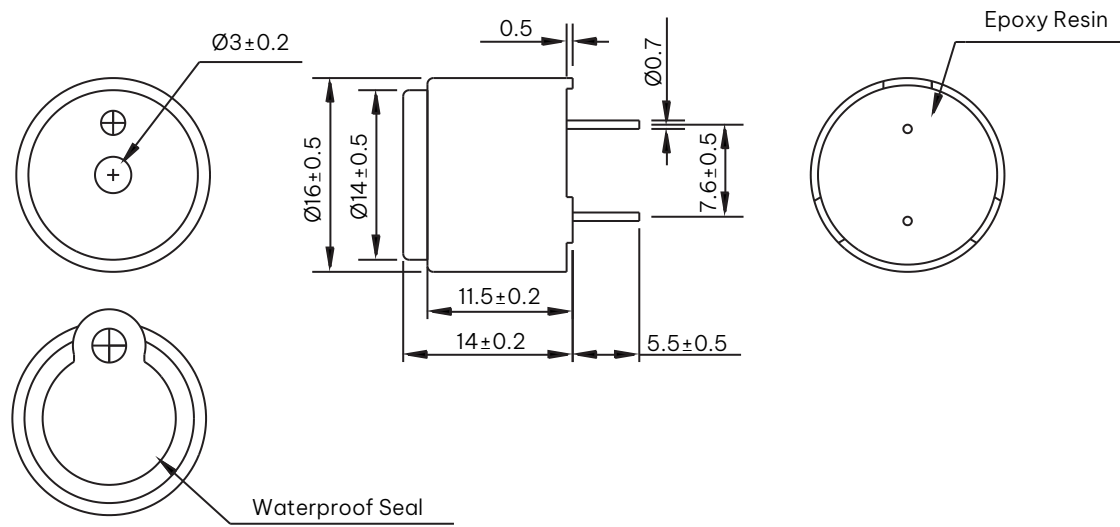
The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-TH16-0520-RK

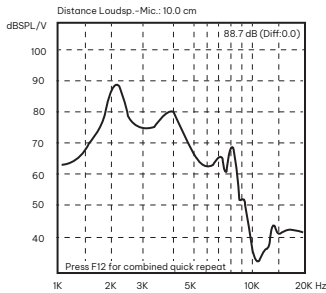


Unit: mm

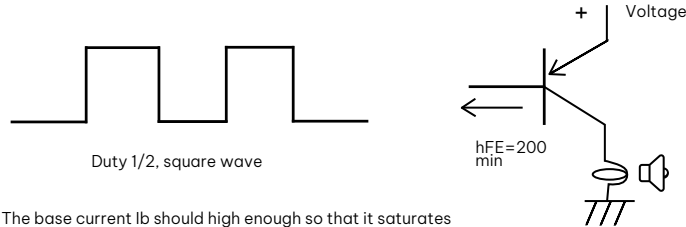
Electrical Characteristics	
Resonant Frequency (Hz)	2048
Operating Voltage (Vo-p)	4.0 ~ 7.0
Rated Voltage (Vo-p)	5.0
Current Consumption (mA/max)	60 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	68 ± 8
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by wave ($^{\circ}\text{C}$)	$260 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	5.0

Typical Frequency Response Curve



Recommend Driving Circuit



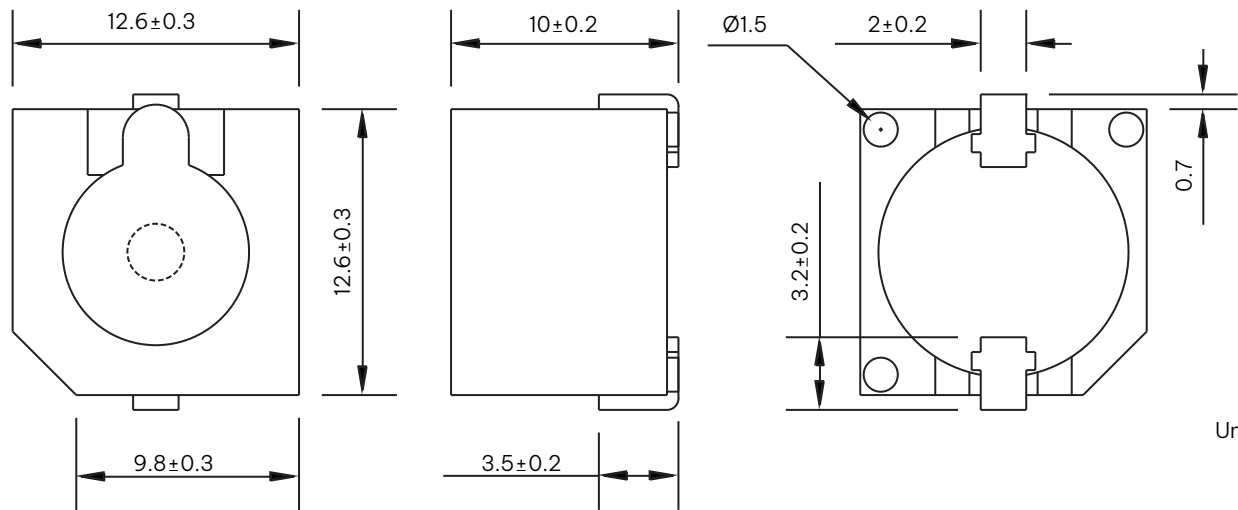
The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-SMT12-0524-SG

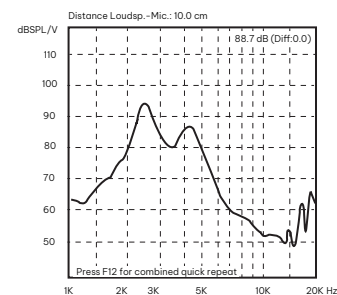


Unit: mm

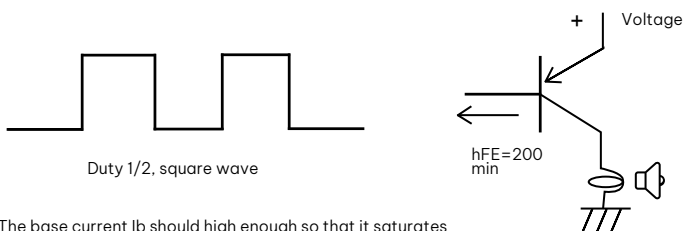
Electrical Characteristics	
Oscillation Frequency (Hz)	2400
Operating Voltage (Vo-p)	4.0 ~ 7.0
Rated Voltage (Vo-p)	5.0
Current Consumption (mA/max)	45 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	45 ± 5
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by wave ($^{\circ}\text{C}$)	$250 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	PPS plastic resin (Color : Gray)
Leading Pin	SMD
Weight (Gram)	2.6

Typical Frequency Response Curve



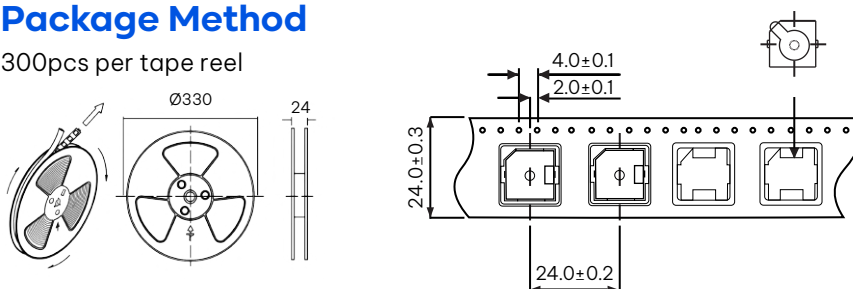
Recommend Driving Circuit



The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

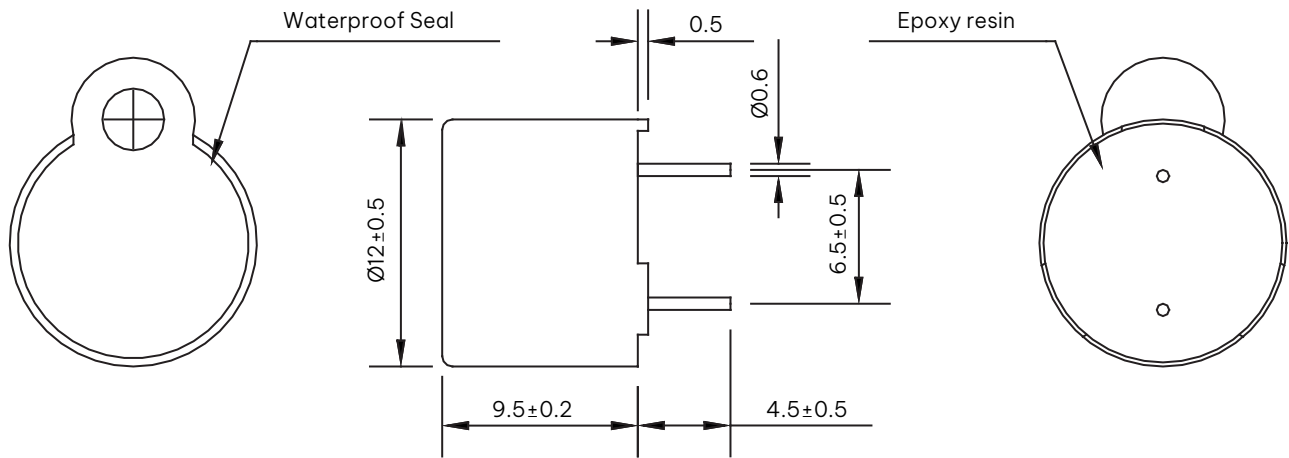
300pcs per tape reel





Product Dimensions

MT-TH12-0524-RK

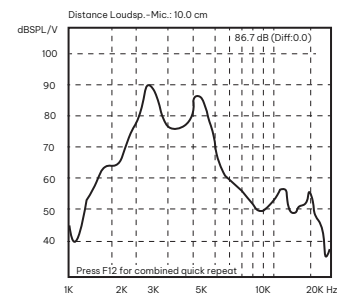


Unit: mm

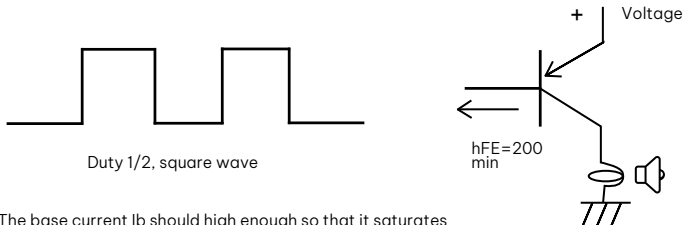
Electrical Characteristics	
Oscillation Frequency (Hz)	2400
Operating Voltage (Vo-p)	4.5 ~ 5.5
Rated Voltage (Vo-p)	5.0
Current Consumption (mA/max)	50 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	45 ± 5
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by wave ($^{\circ}\text{C}$)	$260 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	1.4

Typical Frequency Response Curve



Recommend Driving Circuit



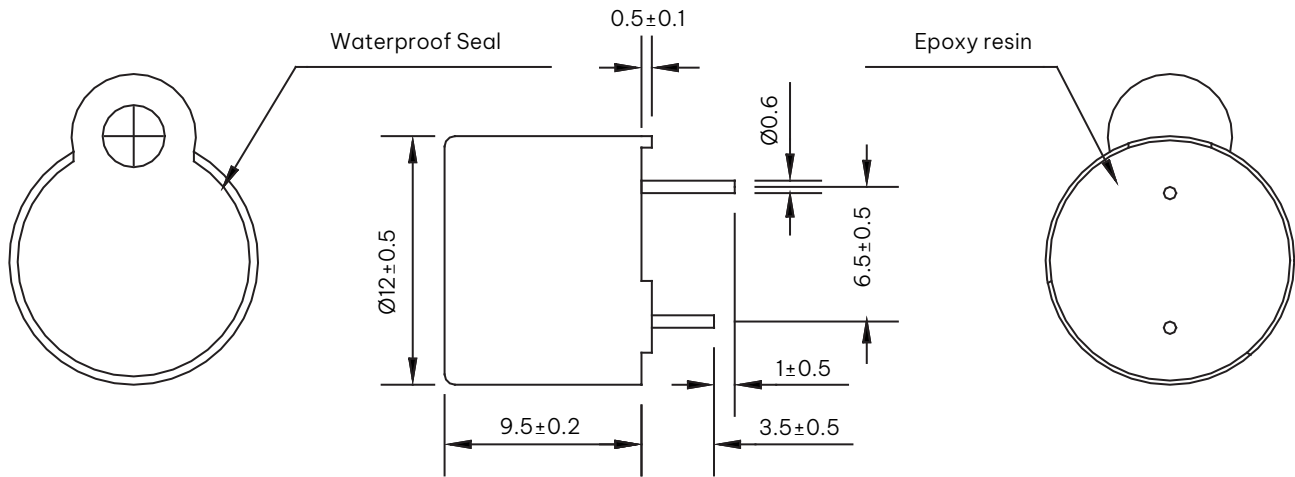
The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-TH12-1224-RK

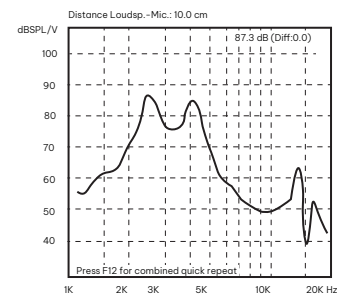


Unit: mm

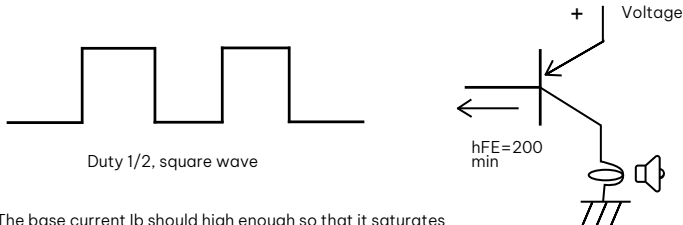
Electrical Characteristics	
Oscillation Frequency (Hz)	2400
Operating Voltage (Vo-p)	9.0 ~ 15
Rated Voltage (Vo-p)	12
Current Consumption (mA/max)	60 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	140 ± 21
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by wave ($^{\circ}\text{C}$)	$260 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	1.4

Typical Frequency Response Curve



Recommend Driving Circuit



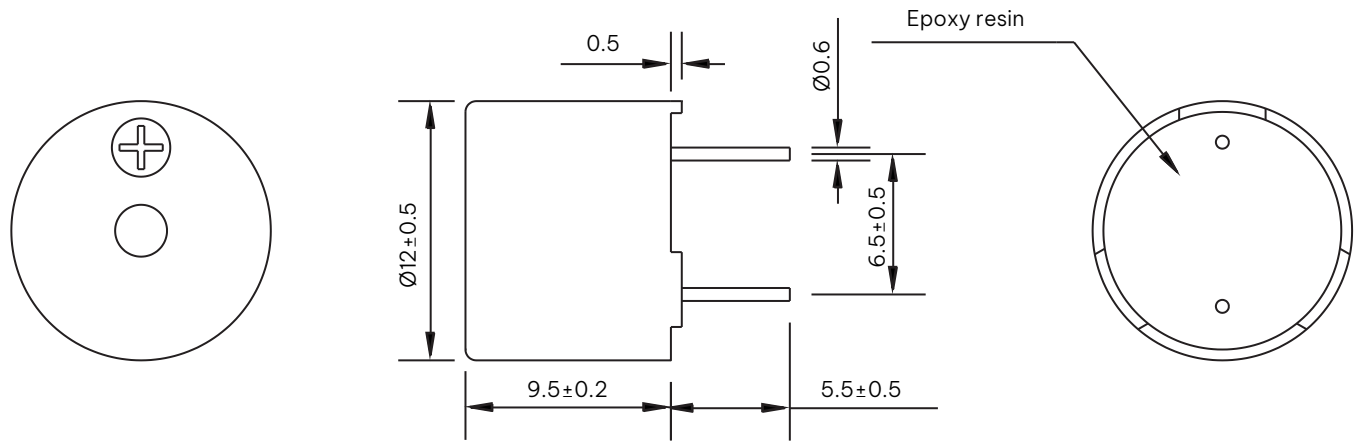
The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-TH12-0126-RK

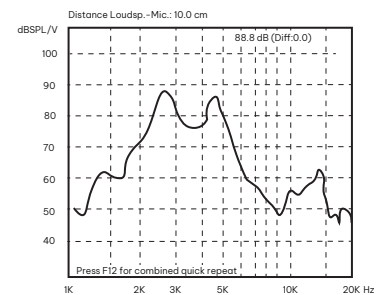


Unit: mm

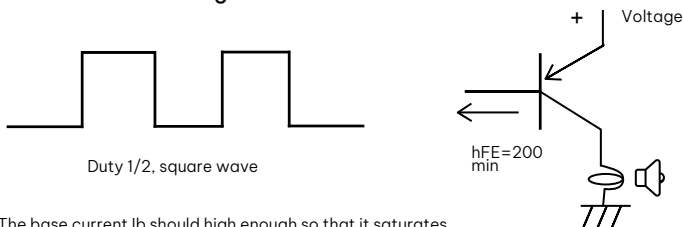
Electrical Characteristics	
Oscillation Frequency (Hz)	2600
Operating Voltage (Vo-p)	1.1 ~ 3.0
Rated Voltage (Vo-p)	1.5
Current Consumption (mA/max)	30 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	15 $\pm$ 3
Operating Temperature ($^{\circ}\text{C}$)	-30 ~ +70
Storage Temperature ($^{\circ}\text{C}$)	-40 ~ +80
Condition by wave ($^{\circ}\text{C}$)	260 $\pm$ 5 $^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	350 $\pm$ 20 $^{\circ}\text{C}$ / within 5sec

Material	
Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	1.6

Typical Frequency Response Curve



Recommend Driving Circuit



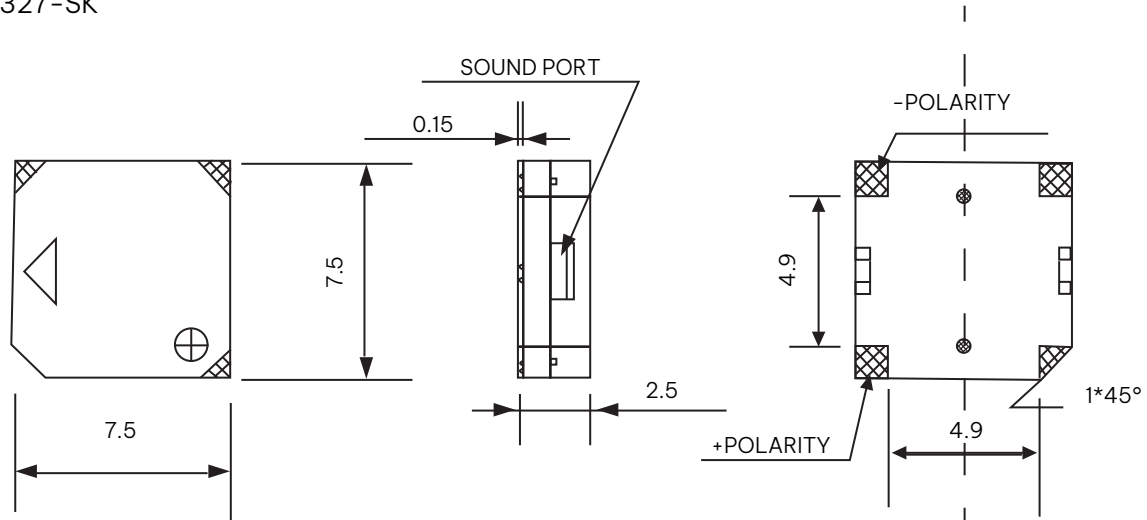
The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-SMT07-0327-SK

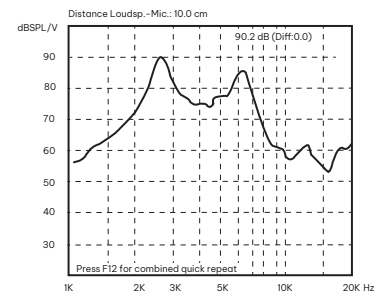


Unit: mm

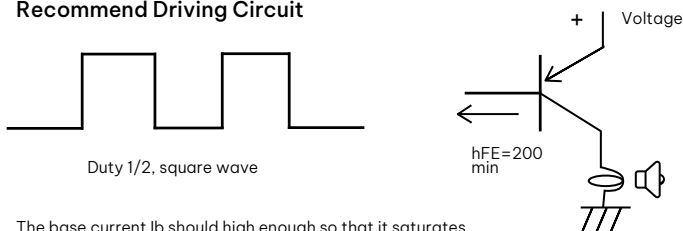
Electrical Characteristics	
Oscillation Frequency (Hz)	2700
Operating Voltage (Vo-p)	2.5 ~ 4.5
Rated Voltage (Vo-p)	3.6
Current Consumption (mA/max)	100 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	16 $\pm$ 3
Operating Temperature ($^{\circ}\text{C}$)	-40 ~ +85
Storage Temperature ($^{\circ}\text{C}$)	-50 ~ +95
Condition by wave ($^{\circ}\text{C}$)	260 $\pm$ 5 $^{\circ}\text{C}$ / within 10sec
Condition by hand ($^{\circ}\text{C}$)	350 $\pm$ 20 $^{\circ}\text{C}$ / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	0.8

Typical Frequency Response Curve



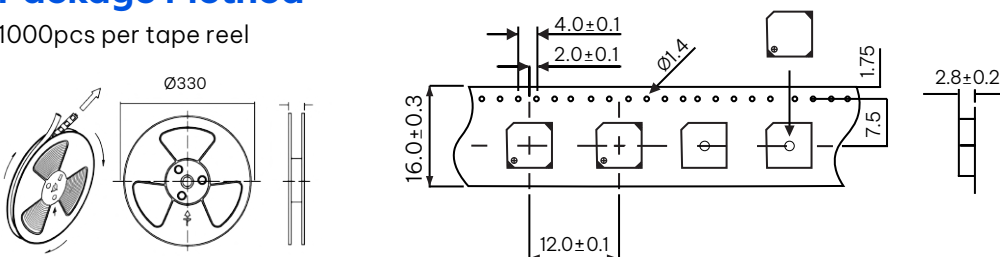
Recommend Driving Circuit



The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

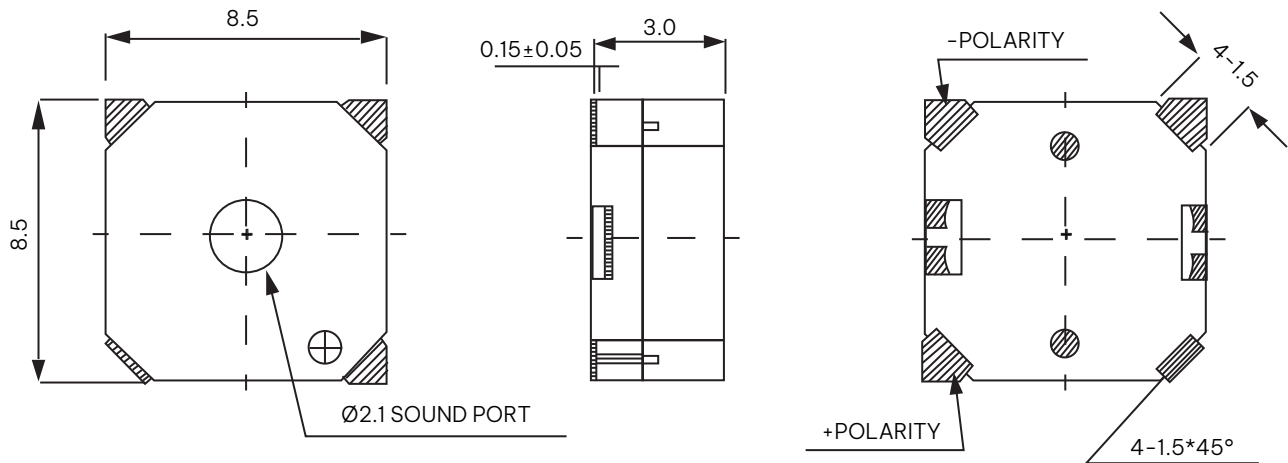
1000pcs per tape reel





Product Dimensions

MT-SMT08-0327-SK

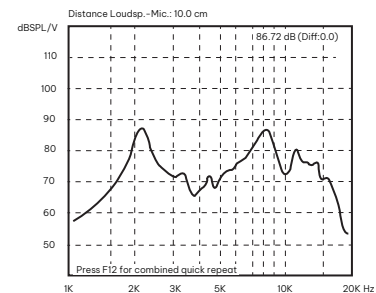


Unit: mm TOL: ±0.5

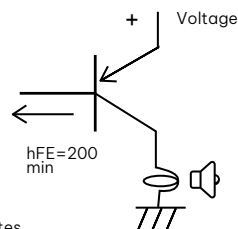
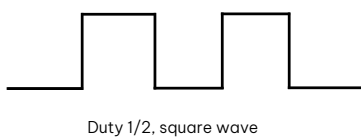
Electrical Characteristics	
Oscillation Frequency (Hz)	2700
Operating Voltage (Vo-p)	2 ~ 4
Rated Voltage (Vo-p)	3
Current Consumption (mA/max)	100 at Rated Voltage
Sound Pressure Level (dB/min)	80 at 10cm at Rated Voltage
Coil Resistance (Ω)	16±3
Operating Temperature (°C)	-20 ~ +70
Storage Temperature (°C)	-30 ~ +80
Condition by wave (°C)	250±5°C / within 10sec
Condition by hand (°C)	350±20°C / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	0.8

Typical Frequency Response Curve



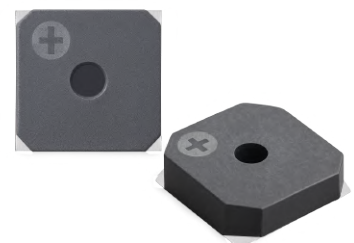
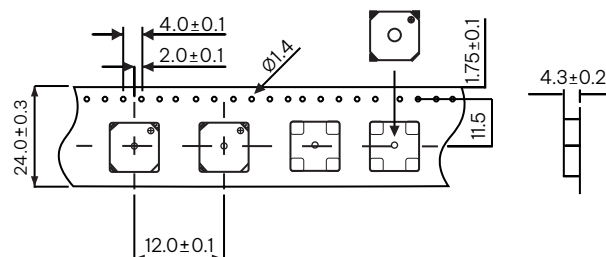
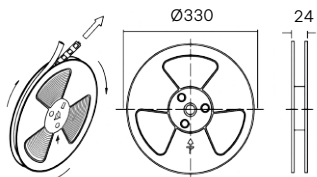
Recommend Driving Circuit



The base current Ib should high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

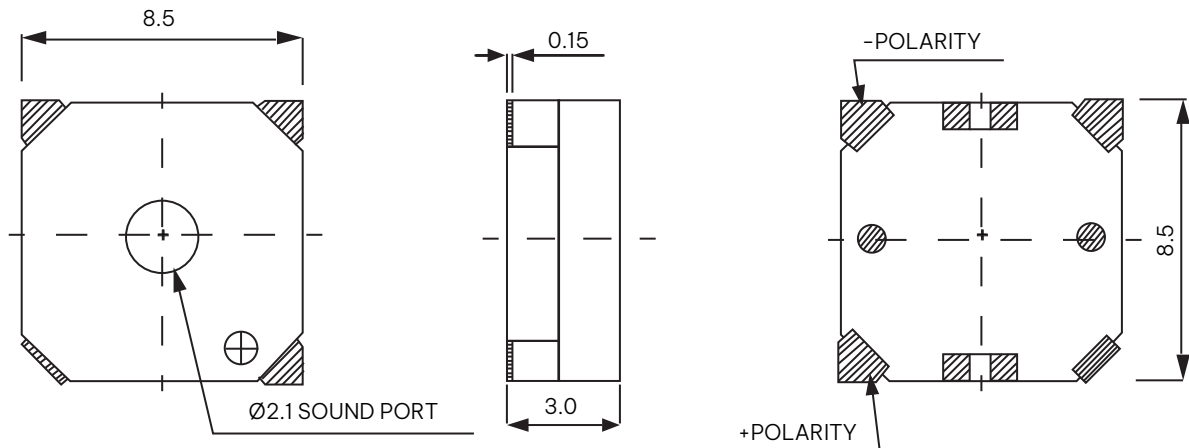
1000pcs per tape reel





Product Dimensions

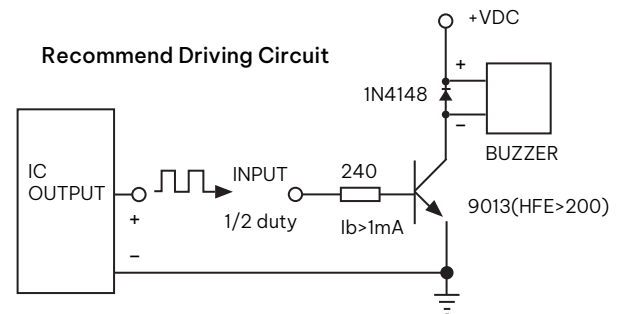
MT-SMT08-0327-SKV



Unit: mm TOL: ± 0.3

Electrical Characteristics	
Oscillation Frequency (Hz)	2700 $\pm$ 500
Operating Voltage (Vo-p)	2.5 ~ 4.5
Rated Voltage (Vo-p)	3.6
Current Consumption (mA/max)	90 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	16 $\pm$ 3
Operating Temperature ($^{\circ}\text{C}$)	-20 ~ +70
Storage Temperature ($^{\circ}\text{C}$)	-30 ~ +80
Condition by wave ($^{\circ}\text{C}$)	250 $\pm$ 5 $^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	350 $\pm$ 20 $^{\circ}\text{C}$ / within 5sec

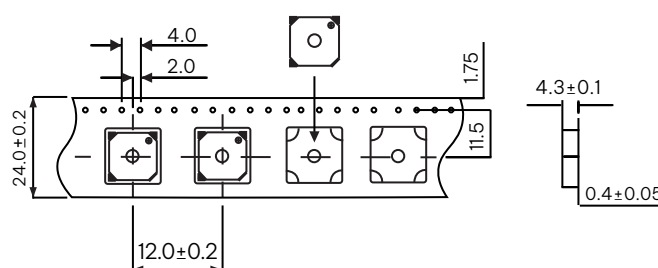
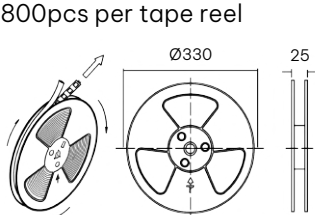
Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	0.6



The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

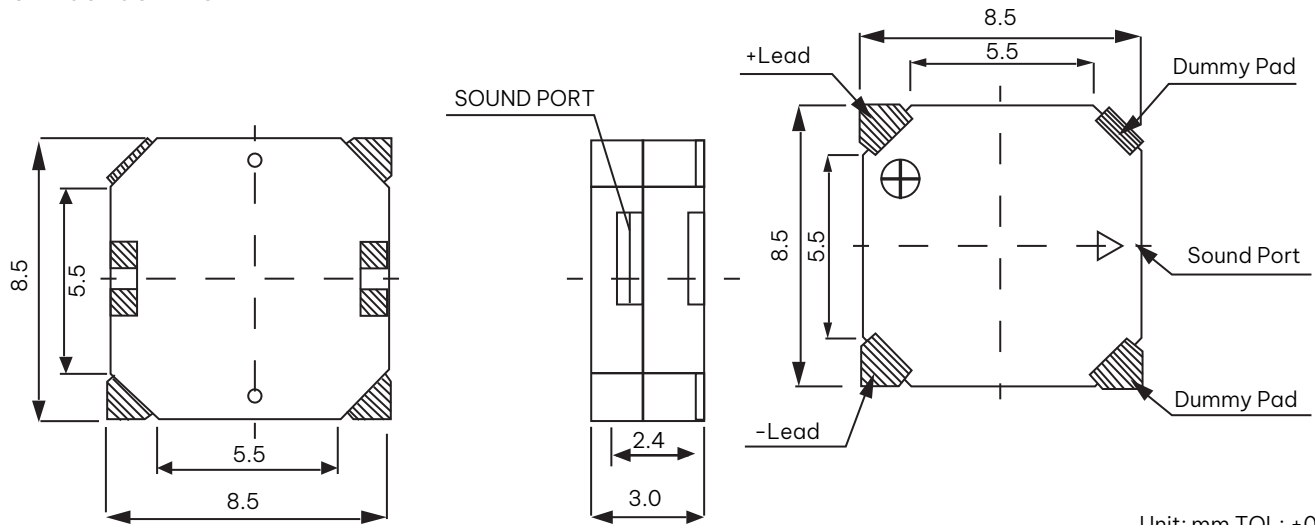
800pcs per tape reel





Product Dimensions

MT-SMT08-0527-SK

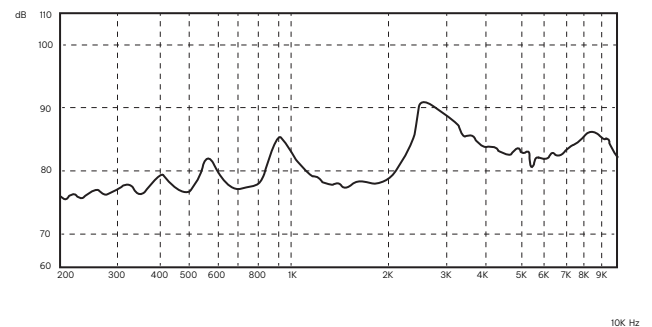


Unit: mm TOL: ± 0.5

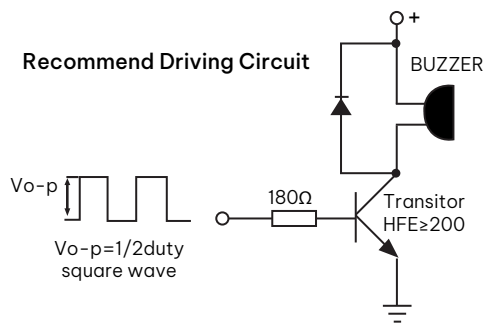
Electrical Characteristics	
Oscillation Frequency (Hz)	2700
Operating Voltage (Vo-p)	4.5 ~ 6.5
Rated Voltage (Vo-p)	5.0
Current Consumption (mA/max)	80 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	32 ± 5
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +85$

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	Tin Plated Brass (Sn)
Weight (Gram)	1.0

Typical Frequency Response Curve



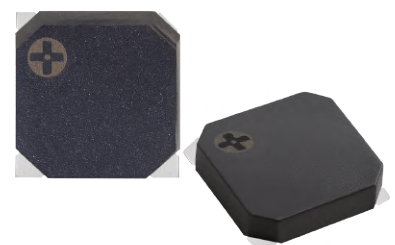
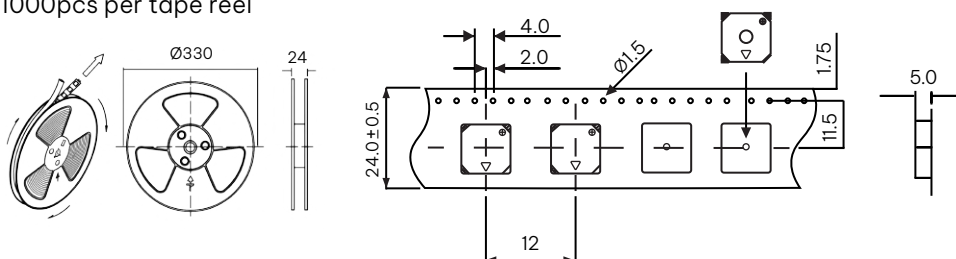
Recommend Driving Circuit



The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

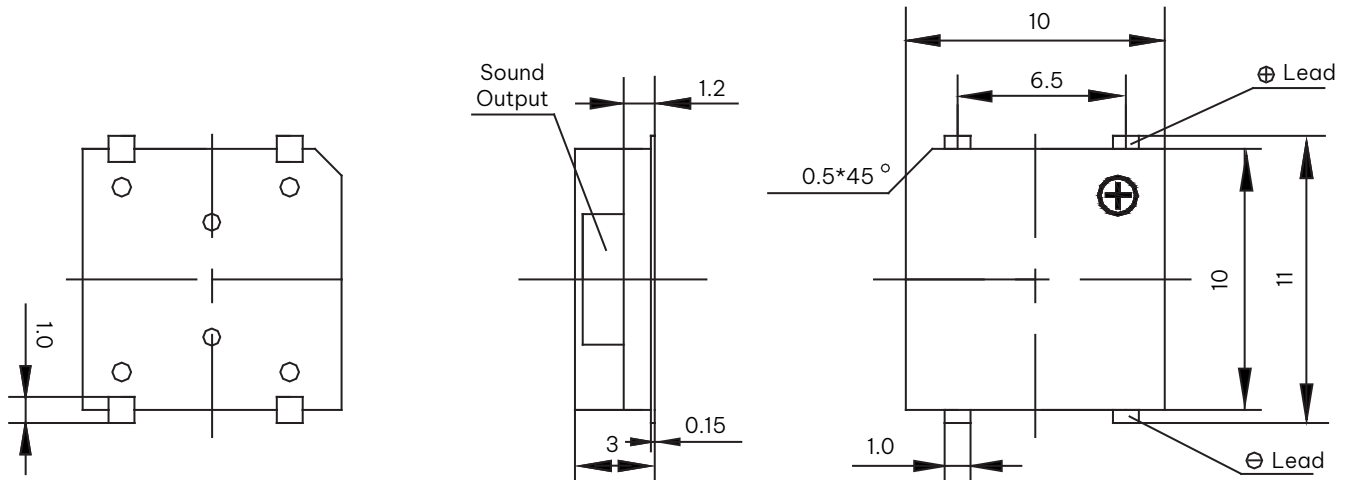
1000pcs per tape reel





Product Dimensions

MT-SMT10-0327-SK

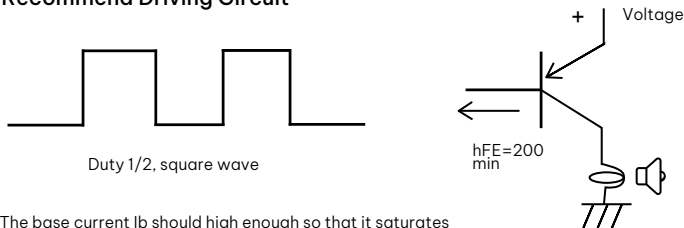


Unit: mm TOL: ± 0.3

Electrical Characteristics	
Oscillation Frequency (Hz)	2700
Operating Voltage (Vo-p)	2.0 ~ 4.0
Rated Voltage (Vo-p)	3.0
Current Consumption (mA/max)	100 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	17.5 $\pm$ 3
Operating Temperature ($^{\circ}\text{C}$)	-30 ~ +70
Storage Temperature ($^{\circ}\text{C}$)	-40 ~ +85
Condition by reflow soldering ($^{\circ}\text{C}$)	250 $\pm$ 5 $^{\circ}\text{C}$ / within 10sec
Condition by hand ($^{\circ}\text{C}$)	350 $\pm$ 20 $^{\circ}\text{C}$ / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	1.0

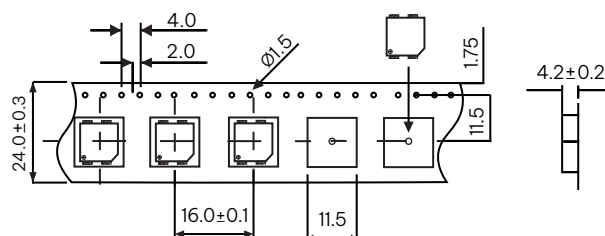
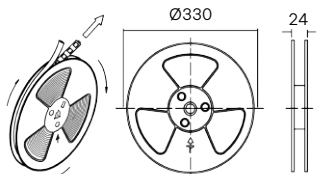
Recommend Driving Circuit



The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

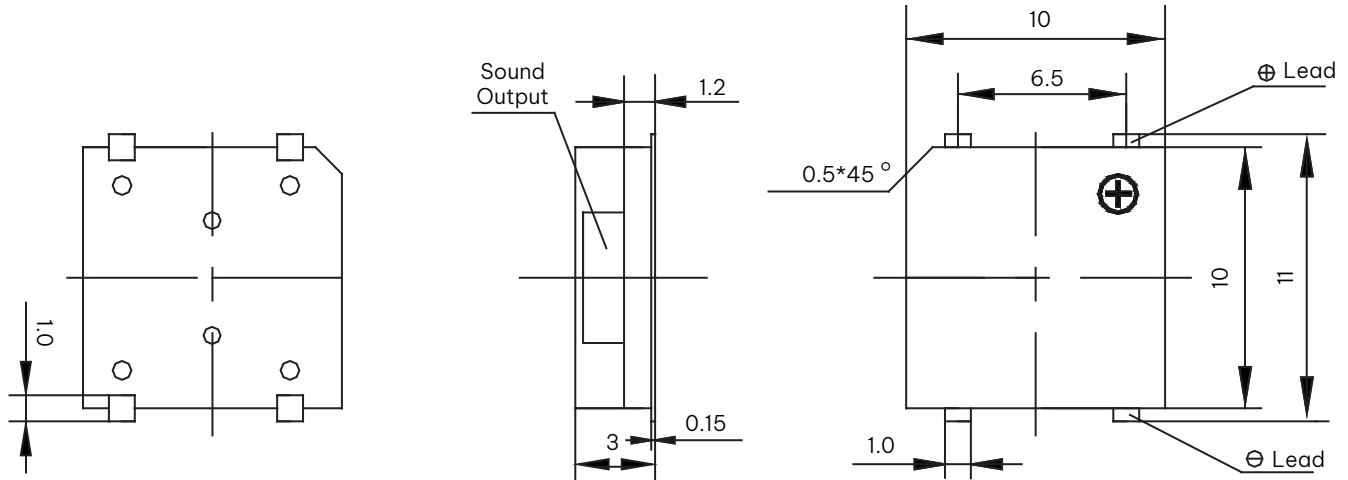
800pcs per tape reel





Product Dimensions

MT-SMT10-0527-SK

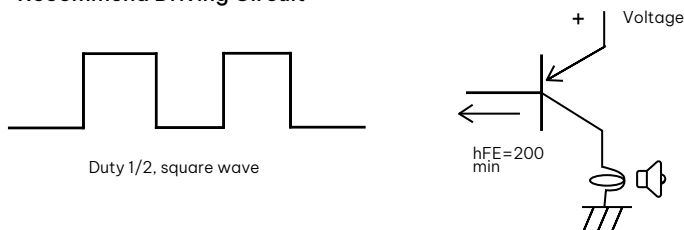


Unit: mm TOL:±0.3

Electrical Characteristics	
Oscillation Frequency (Hz)	2700
Operating Voltage (Vo-p)	4.0 ~ 6.0
Rated Voltage (Vo-p)	5.0
Current Consumption (mA/max)	100 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	30±3
Operating Temperature (°C)	-30 ~ +70
Storage Temperature (°C)	-40 ~ +85
Condition by reflow soldering (°C)	250±5°C / within 10sec
Condition by hand (°C)	350±20°C / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	1.0

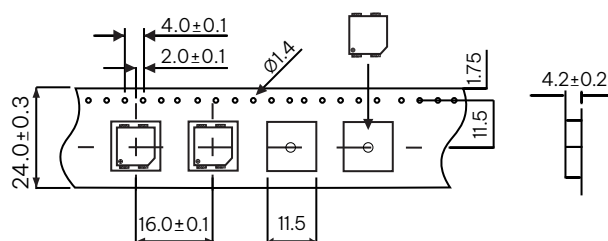
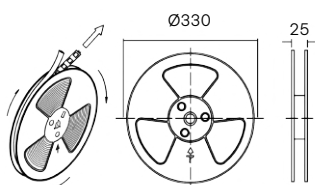
Recommend Driving Circuit



The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

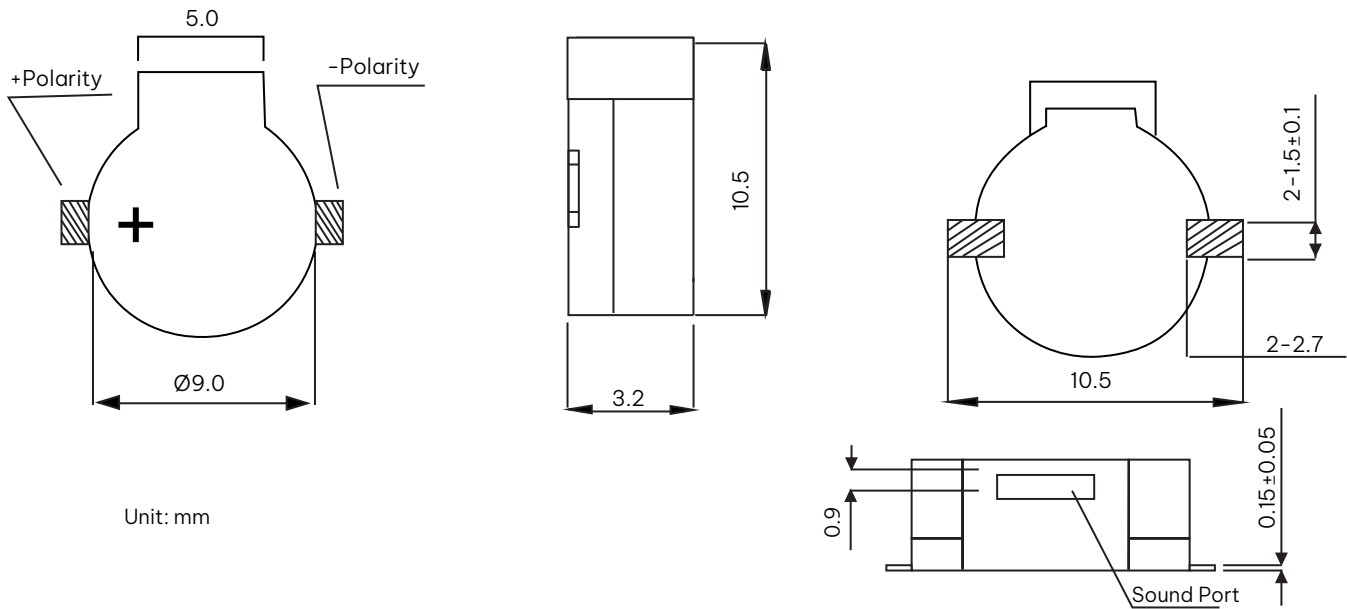
800pcs per tape reel





Product Dimensions

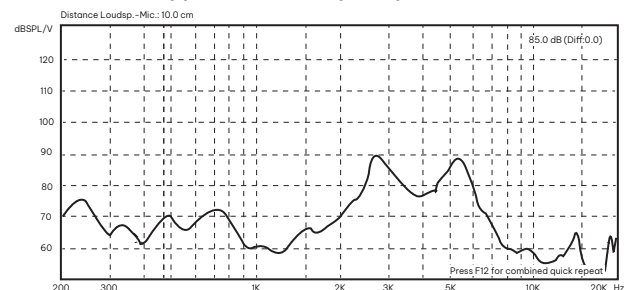
MT-SMT09-0327-RKT



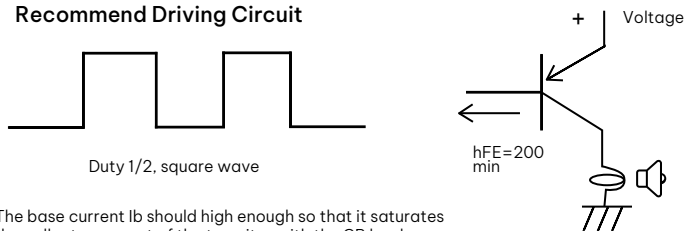
Electrical Characteristics	
Oscillation Frequency (Hz)	2731
Operating Voltage (Vo-p)	2.0 ~ 4.0
Rated Voltage (Vo-p)	3.0
Current Consumption (mA/max)	80 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	15 $\pm$ 2
Operating Temperature ($^{\circ}\text{C}$)	-25 ~ +85
Storage Temperature ($^{\circ}\text{C}$)	-40 ~ +85
Condition by reflow soldering ($^{\circ}\text{C}$)	250 $\pm$ 5 $^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	350 $\pm$ 20 $^{\circ}\text{C}$ / within 5sec

Material	
Housing	LCP (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	0.4

Typical Frequency Response Curve



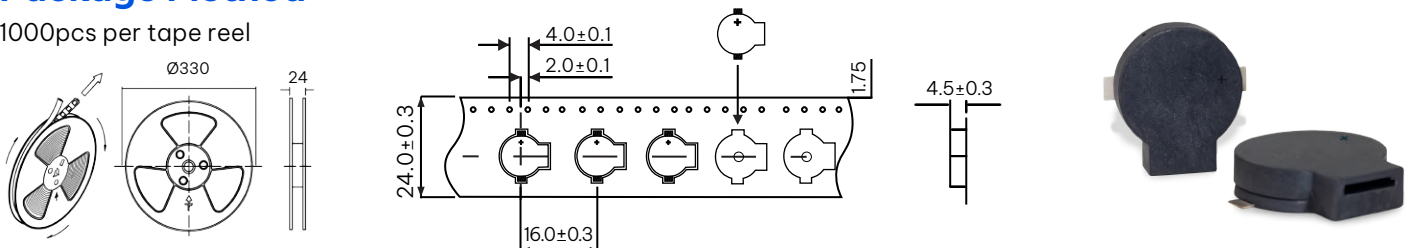
Recommend Driving Circuit



The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

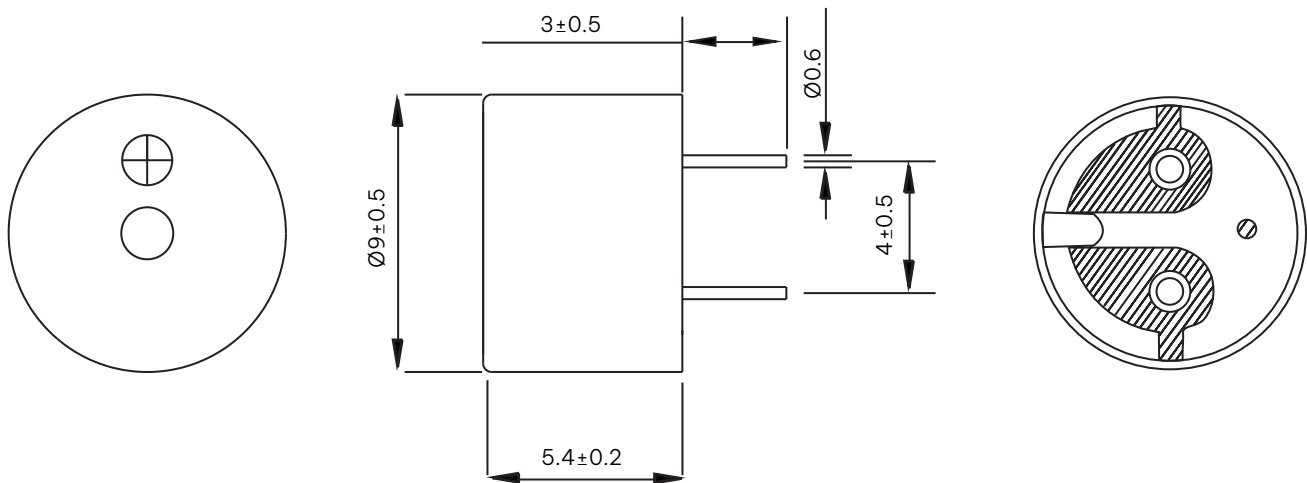
1000pcs per tape reel





Product Dimensions

MT-TH09-0327-RK

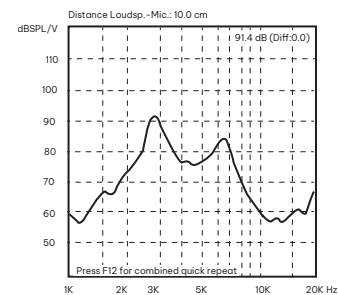


Unit: mm

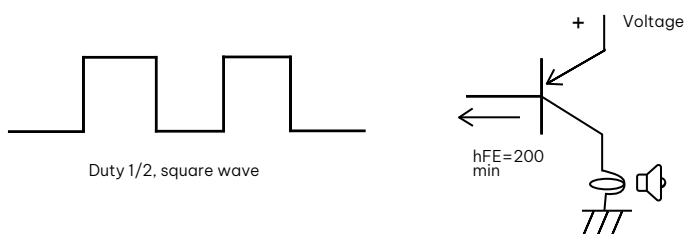
Electrical Characteristics	
Oscillation Frequency (Hz)	2731
Operating Voltage (Vo-p)	2.0 ~ 5.0
Rated Voltage (Vo-p)	3.0
Current Consumption (mA/max)	70 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	20 ± 5
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by wave ($^{\circ}\text{C}$)	$260 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	0.8

Typical Frequency Response Curve



Recommend Driving Circuit



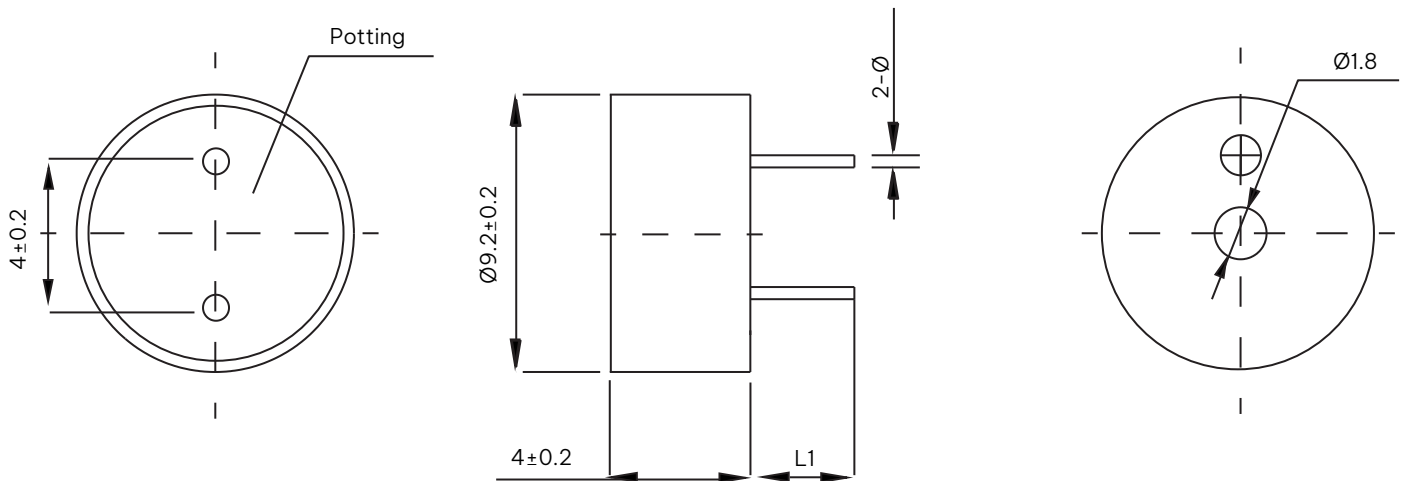
The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-TH09-0527-RK

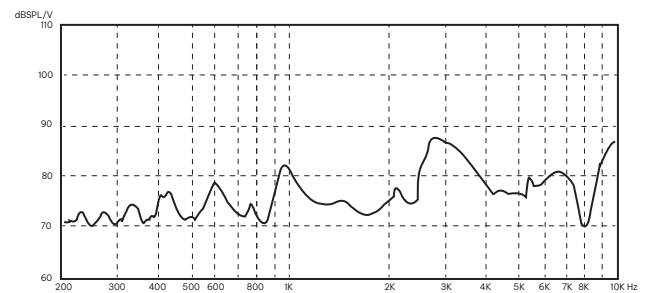


Unit: mm Tolerance: ± 0.5 mm
Pin: $L1 = 4.5 \pm 0.5$, $\varnothing 0.6 \pm 0.1$ mm

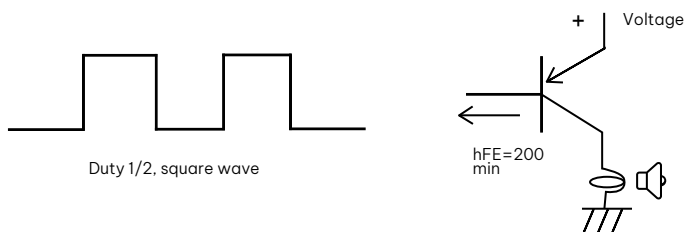
Electrical Characteristics	
Oscillation Frequency (Hz)	2731
Operating Voltage (Vo-p)	3 ~ 7
Rated Voltage (Vo-p)	5.0
Current Consumption (mA/max)	80 at Rated Voltage
Sound Pressure Level (dB/min)	80 at 10cm at Rated Voltage
Coil Resistance (Ω)	42 ± 4
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by wave ($^{\circ}\text{C}$)	$260 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	PBT plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	1.5

Typical Frequency Response Curve



Recommend Driving Circuit



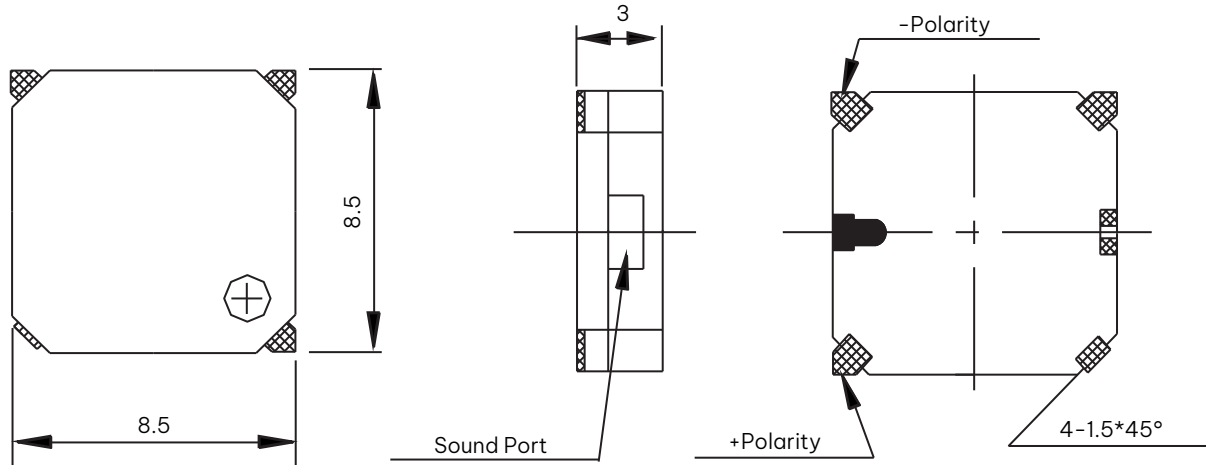
The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-SMT08-0331-SK

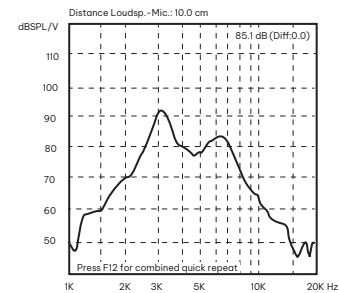


Unit: mm

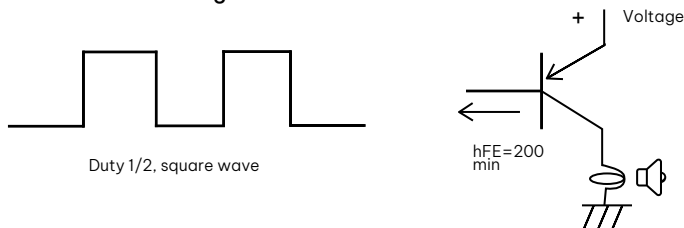
Electrical Characteristics	
Oscillation Frequency (Hz)	3100
Operating Voltage (Vo-p)	2.0 ~ 4.0
Rated Voltage (Vo-p)	3.6
Current Consumption (mA/max)	80 at Rated Voltage
Sound Pressure Level (dB/min)	90 at 5cm at Rated Voltage
Coil Resistance (Ω)	20 ± 3
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by reflow soldering ($^{\circ}\text{C}$)	$250 \pm 5^{\circ}\text{C}$ / within 10sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	0.4

Typical Frequency Response Curve



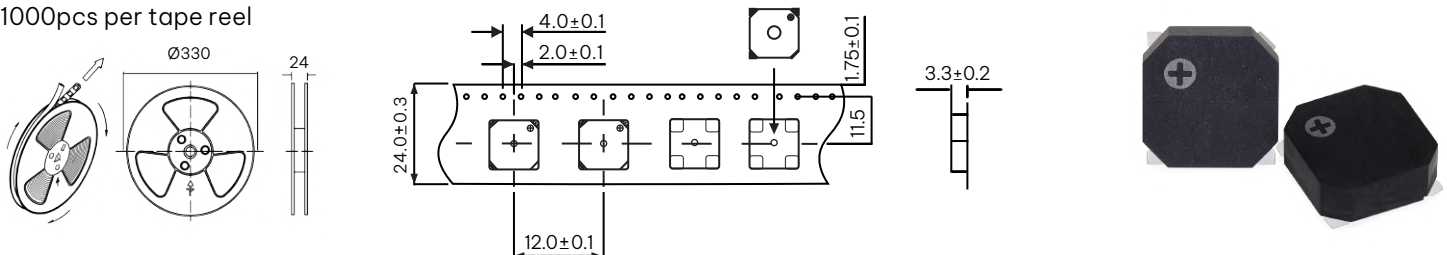
Recommend Driving Circuit



The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

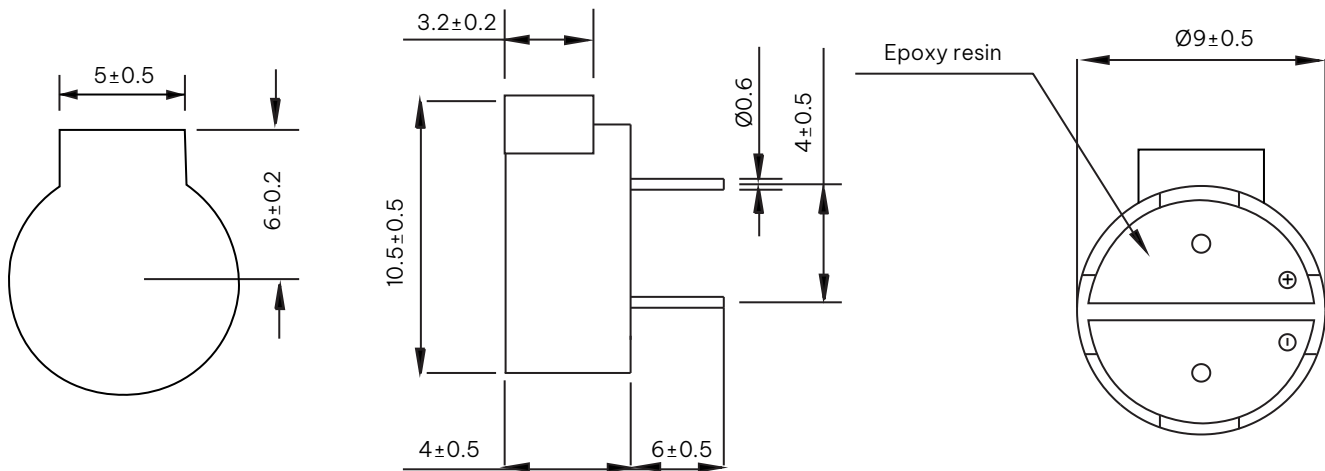
1000pcs per tape reel





Product Dimensions

MT-TH09-0532-RK

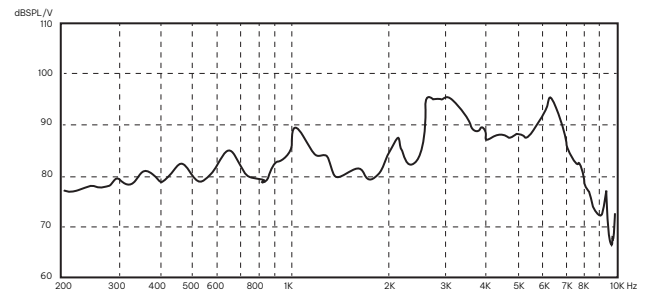


Unit: mm

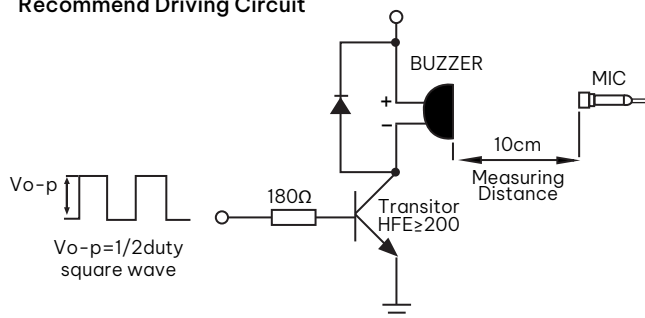
Electrical Characteristics	
Oscillation Frequency (Hz)	3200
Operating Voltage (Vo-p)	4.0 ~ 6.0
Rated Voltage (Vo-p)	5.0
Current Consumption (mA/max)	70 at Rated Voltage
Sound Pressure Level (dB/min)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	32 ± 4
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +70$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$

Material	
Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	0.5

Typical Frequency Response Curve



Recommend Driving Circuit



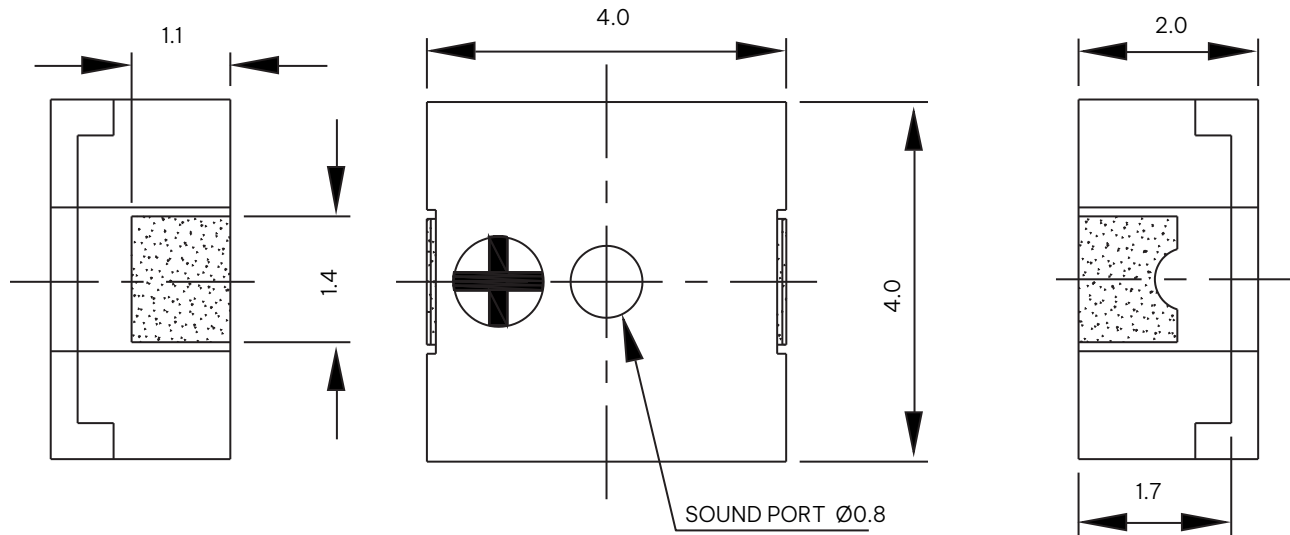
The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.





Product Dimensions

MT-SMT04-0340-SK

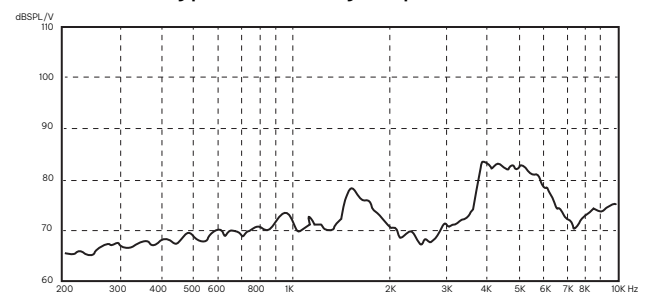


Unit: mm

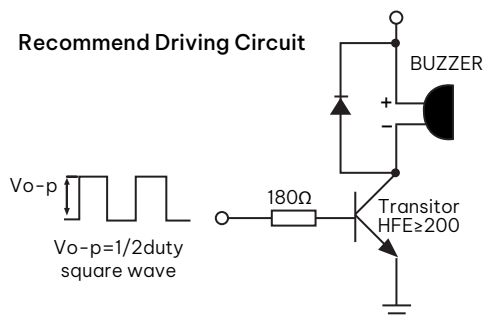
Electrical Characteristics	
Oscillation Frequency (Hz)	4000
Operating Voltage (Vo-p)	2.0 ~ 4.0
Rated Voltage (Vo-p)	3.0
Current Consumption (mA/max)	110 at Rated Voltage
Sound Pressure Level (dB/min)	70 at 10cm at Rated Voltage
Coil Resistance (Ω)	17 $\pm$ 3
Operating Temperature ($^{\circ}\text{C}$)	-30 ~ +70
Storage Temperature ($^{\circ}\text{C}$)	-30 ~ +80
Condition by wave ($^{\circ}\text{C}$)	260 $\pm$ 5 $^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	350 $\pm$ 20 $^{\circ}\text{C}$ / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	0.1

Typical Frequency Response Curve



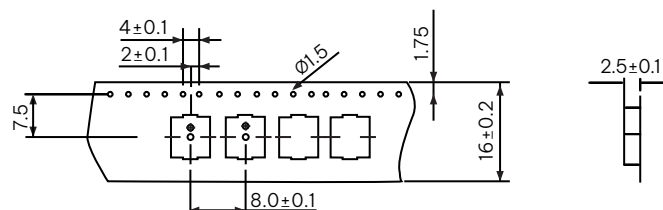
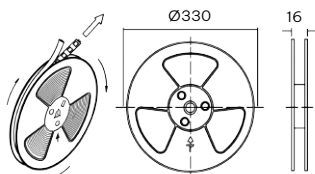
Recommend Driving Circuit



The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

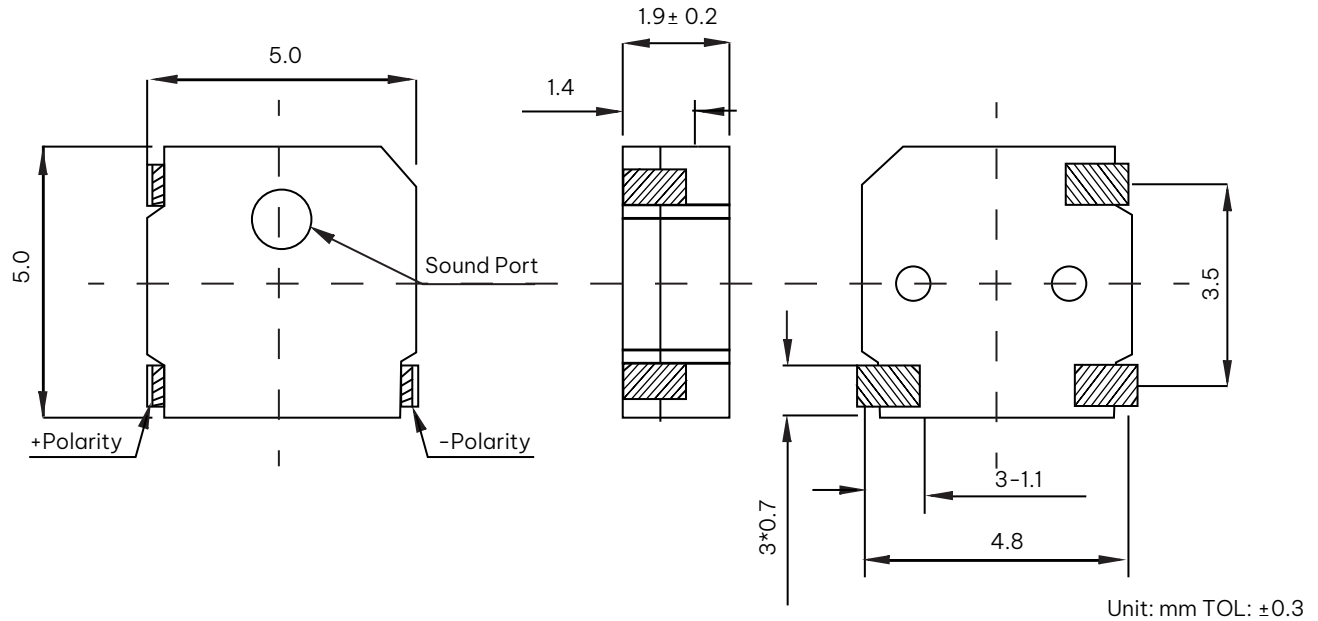
3000pcs per tape reel





Product Dimensions

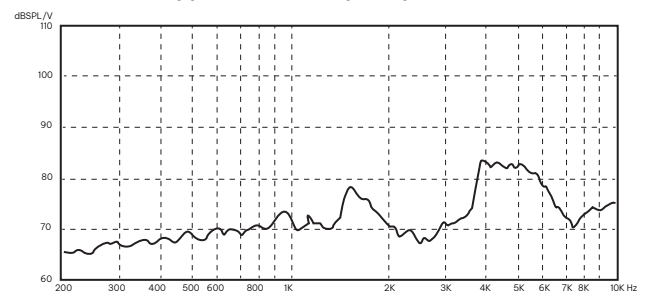
MT-SMT05-0340-SK



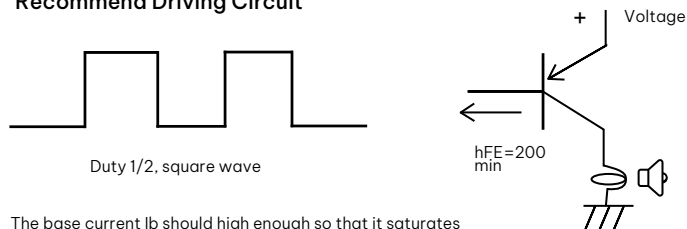
Electrical Characteristics	
Oscillation Frequency (Hz)	4.0
Operating Voltage (Vo-p)	2.0 ~ 4.0
Rated Voltage (Vo-p)	3.0
Current Consumption (mA/max)	110 at Rated Voltage
Sound Pressure Level (dB/min)	75 at 10cm at Rated Voltage
Coil Resistance (Ω)	12±3
Operating Temperature (°C)	-20 ~ +70
Storage Temperature (°C)	-30 ~ +80
Condition by reflow soldering (°C)	250±5°C / within 10sec
Condition by hand (°C)	350±20°C / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	0.13

Typical Frequency Response Curve



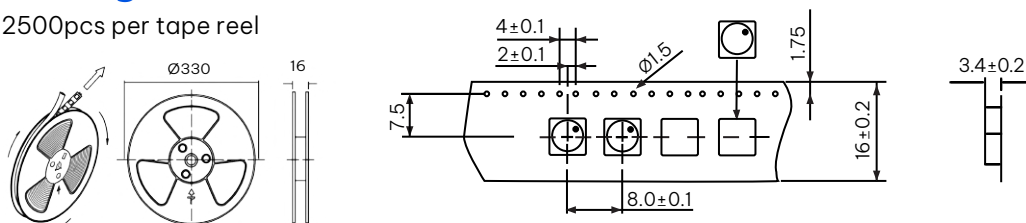
Recommend Driving Circuit



The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

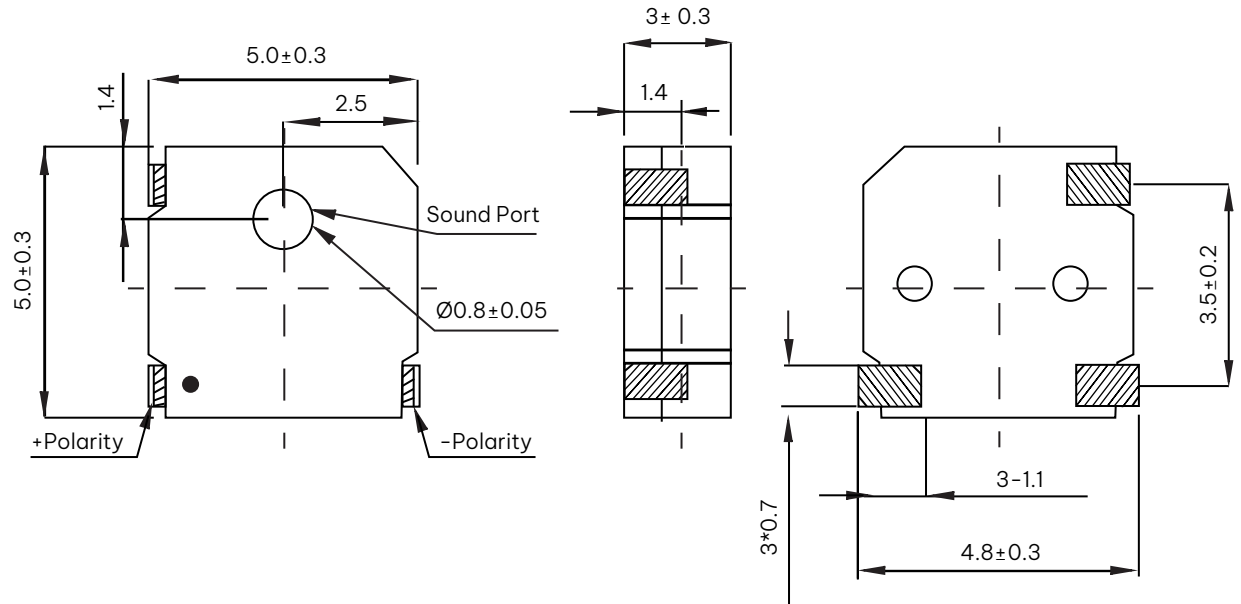
2500pcs per tape reel





Product Dimensions

MT-SMT05-0340-SKT

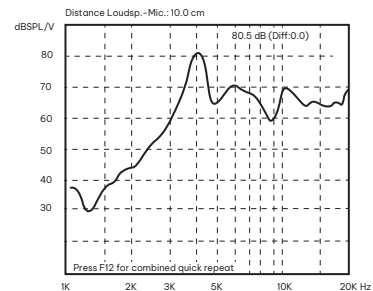


Unit: mm TOL: ± 0.1

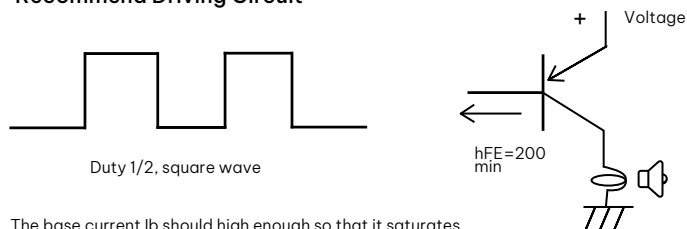
Electrical Characteristics	
Oscillation Frequency (Hz)	4000
Operating Voltage (Vo-p)	2.0 ~ 4.0
Rated Voltage (Vo-p)	3.6
Current Consumption (mA/max)	110 at Rated Voltage
Sound Pressure Level (dB/min)	80 at 10cm at Rated Voltage
Coil Resistance (Ω)	12 ± 3
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim +60$
Storage Temperature ($^{\circ}\text{C}$)	$-30 \sim +80$
Condition by reflow soldering ($^{\circ}\text{C}$)	$250 \pm 5^{\circ}\text{C}$ / within 5sec
Condition by hand ($^{\circ}\text{C}$)	$350 \pm 20^{\circ}\text{C}$ / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	SMD
Weight (Gram)	0.6

Typical Frequency Response Curve



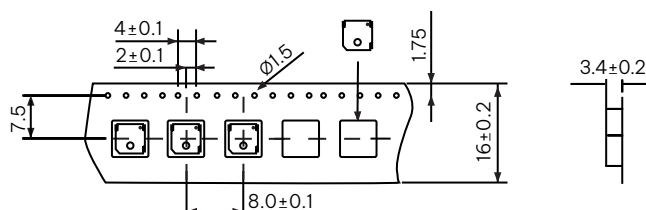
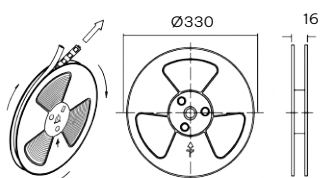
Recommend Driving Circuit



The base current I_b should be high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

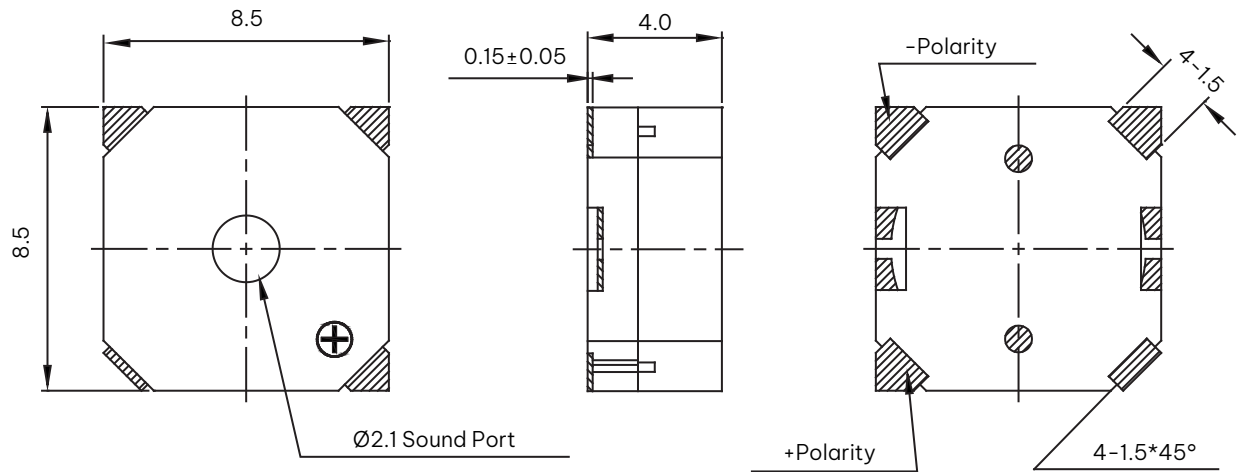
1000pcs per tape reel





Product Dimensions

MT-SMT08-0440-SK

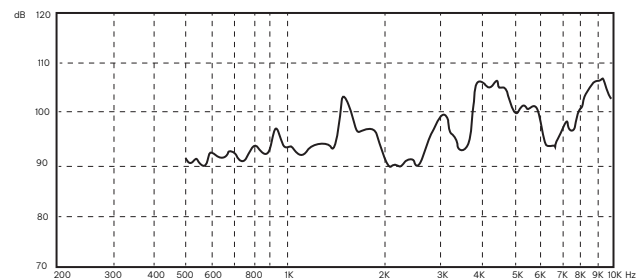


Unit: mm TOL: ±0.5

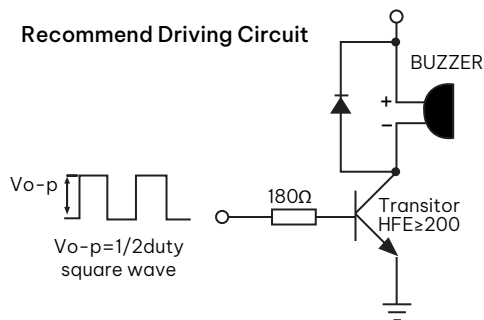
Electrical Characteristics	
Oscillation Frequency (Hz)	4000
Operating Voltage (Vo-p)	3.6 ~ 5
Rated Voltage (Vo-p)	4.4
Current Consumption (mA/max)	140 at Rated Voltage
Sound Pressure Level (dB/min)	105 at 10cm at Rated Voltage
Coil Resistance (Ω)	12±3
Operating Temperature (°C)	-20 ~ +70
Storage Temperature (°C)	-30 ~ +80
Condition by wave (°C)	260±5°C / within 5sec
Condition by hand (°C)	350±20°C / within 5sec

Material	
Housing	LCP plastic resin (Color : Black)
Leading Pin	Tin Plated Brass (Sn)
Weight (Gram)	0.8

Typical Frequency Response Curve



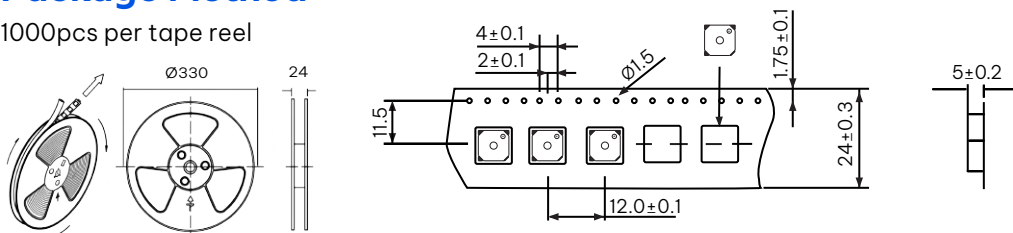
Recommend Driving Circuit



The base current Ib should high enough so that it saturates the collector current of the transistor with the CB load.

Package Method

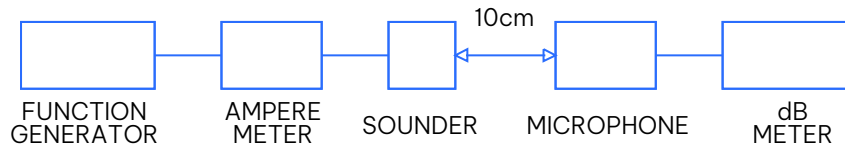
1000pcs per tape reel



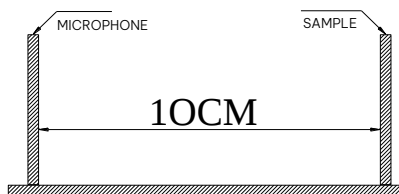


Testing Method

- **Standard Measurement conditions:** Temperature: $25 \pm 2^\circ\text{C}$ Humidity: 45–60%.
- **Acoustic Characteristics:** The frequency, power usage, and sound output are evaluated using the measurement equipment depicted below.



In the measuring test, buzzers is placed as follows:



Reliability

ITEMS	METHOD OF TEST AND MEASUREMENTS	PERFORMANCE
Coldness withstanding	After 98 hours of being exposed to -30°C environment, should be returned to normal environment for 2 hours, then re-proceed to test.	No abnormality shall exist
Hotness withstanding	After 98 hours of being exposed to $+80^\circ\text{C}$ environment, should be returned to normal environment for 2 hours, then re-proceed to test.	No abnormality shall exist
Humidity withstanding	After 98 hours of being exposed to 40°C 95%RH environment in actual operation, should be returned to normal environment for 2 hours, then re-proceed to test.	No abnormality shall exist
Durability	Testing after 98 hours actual continuous operation. (at standard measurement conditions)	No abnormality shall exist
Drop withstanding	A natural drop from 75cm high down to the ground.	No abnormality shall exist
Vibration withstanding	Vibration of 2,000 cycles per minute, 2mm amplitude, applied in X, Y and Z directions for 30 minutes each.	No abnormality shall exist

Compliances and approvals

