

PRODUCT: Electromagnetic Buzzer

EDITION: A/2016

Soberton Inc.

THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER

SPECIFICATION

Test condition: TEMP=+25±2 ℃ Related humidity=65±5% Air pressure:860-1060mbar

item	unit	specification	condition
rated voltage	Vo-p	3.0	Vo-p
operating volt	Vo-p	2-4	↓ L OV
mean current	mA	Max.80	At rated voltage 2730Hz, square wave, 1/2 duty
coil resistance	Ω	15±15%	
sound output	dBA	87	At 10cm(A-weight free air), at rated voltage
			2730Hz, square wave, 1/2duty
rated frequency	Hz	2730	
operating temp	°C	-20 ~ +60	
storage temp	°C	-30 ~ +70	
dimension	mm	φ9.0×H4.3	See attached drawing
weight	gram	0.6	
material		PPO(Black)	
terminal		Pin type (Plating Au)	See attached drawing
environmental		RoHS	
protection regulation			

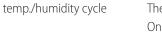
ENVIRONMENT TEST

item	test condition
high temp. test	After being placed in a chamber at +70°C for 96 hours.
low temp. test	After being placed in a chamber at -30°C for 96 hours.
thermal shock	The part will be subjected to 10 cycles. One cycle shall consist of: +70°C -30°C 30 min 60 min

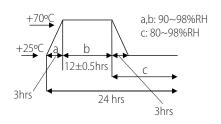
After the test the part will meet specifications without any degradation in appearance and performance except SPL, after 4 hours at $+25^{\circ}$ C. The SPL will be in ± 10 dBA compared with initial

one.

evaluation standard



The part will be subjected to 10 cycles. One cycle shall be 24 hours and consist of:





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RELIABILITY TEST

item	test conditions	evaluation standard
operating life test	ORDINARY TEMPERATURE	After the test the part will meet specifications
	The part will be subjected to 96 hours of	without any degradation in appearance and
	continuous operation at room temperature.	performance except SPL, after 4 hours at +25°C.
	HIGH TEMPERATURE	The SPL would be in ± 10 dBA compared with
	The part will be subjected to 72 hours of	initial one.
	continuous operation at +60°C with 3.0V,	
	2730Hz applied.	-
	LOW TEMPERATURE	
	The part will be subjected to 72 hours of	
	continuous operation at -20°C with 3.0V, 2730Hz	
	applied.	

TEST CONDITION

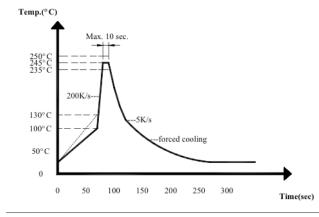
Standard Test Condition: a)Temperature: +5~+35°C b)Humidity:45~85% c)Pressure: 860~1060mbar

MECHANICAL CHARACTERISTICS

item	test conditions	evaluation standard
solderability	Lead terminal are immersed in rosin for 5 seconds and then immersed in solder bath of +260±5℃ for 3±0.5 seconds.	90% min. lead terminals will be wet with solder No interference in operation.
soldering heat resistance	Lead terminal are immersed in soldering bath of +260±5°C for 2±0.5 seconds.	
terminal mechanical strength	Apply the terminal with 1kg strength for 10 \pm 1 seconds.	No damage and cutting off
vibration	The part will be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude will be 1.52mm(9.3G). The vibration test will consist of 2 hours per axis in each three axes(X,Y,Z). Total 6 hours.	After the test the part will meet specifications without any damage in appearance and performance except SPL. The SPL would be in ±10dBA compared with initial one.
drop test	The part only will be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes(X,Y,Z). Total of 9 times.	

RECOMMENDED WAVE SOLDERING TEMPERATURE CURVE

* Wave Soldering profile of lead-free



Recommendable wave soldering condition is as follows:

Note 1: It is requested that wave soldering should be executed after heat of product goes down to normal temperature.

Note 2: Peak wave temperature of 235°C -235°C maximum of 10 seconds.

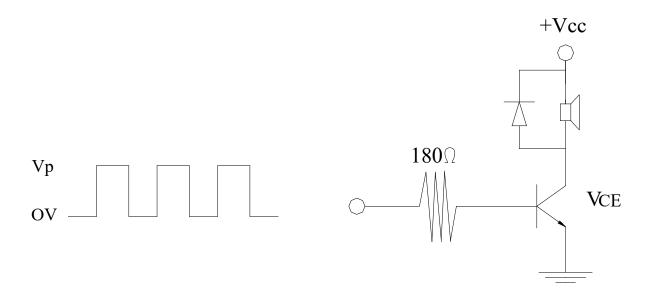


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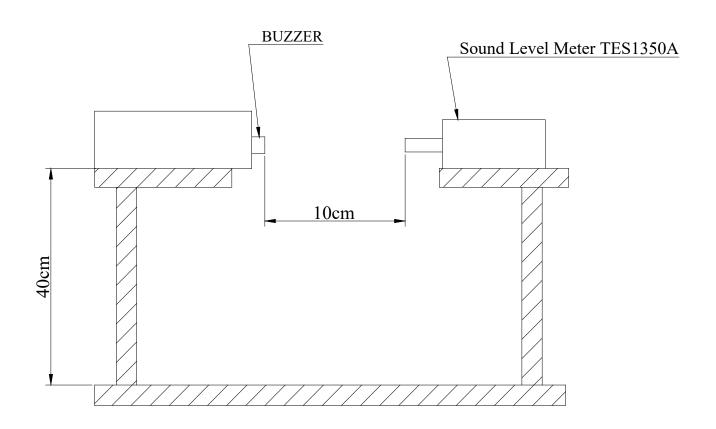
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MEASUREMENT TEST CIRCUIT



INSPECTION FIXTURE





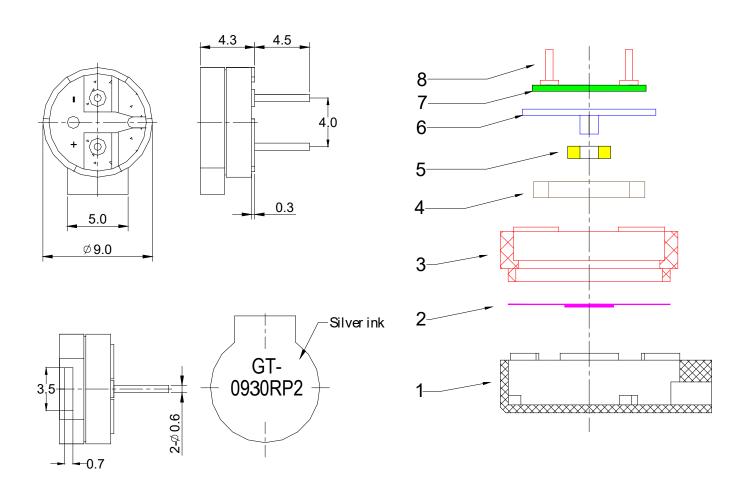
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DIMENSIONS

Tolerance:±0.5 (unit: mm)



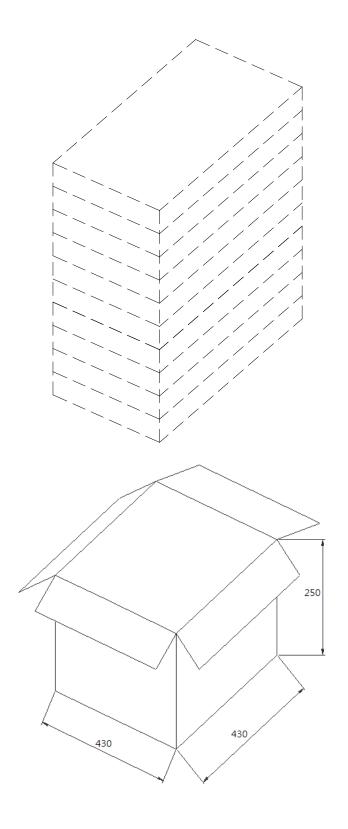
no	item	material	quantity
1	CASE	PPO	1
2	Diaphragm	Ferrum	1
3	CASE	PPO	1
4	Magnet ring	NdFeB	1
5	Coil	Copper	1
6	Core	Ferrum	1
7	PCB	Epoxy glass fiber cloth + copper	1
8	PIN	Copper	2

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PACKING



packing box	LxWxH (mm)	pieces
Tray	190x190x25	100
Inner cartons	210x210x220	1600
Outer cartons	430x430x250	6000