

**PRODUCT:** Electromagnetic Buzzer

**EDITION:** A/2016

Soberton Inc.

# THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER

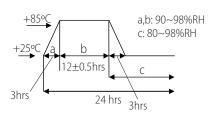
### **SPECIFICATION**

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

item	unit	specification	condition
rated voltage	Vo-p	3.6	Vo-p
operating volt	Vo-p	2.5 ~ 4.5	
mean current	mA	100 Max	At rated voltage 2730Hz, square wave, 1/2 duty
coil resistance	Ω	16±3	
sound output	dBA	88	At 10cm(A-weight free air), at rated voltage
			2730Hz, square wave, 1/2duty
rated frequency	Hz	2730	
operating temp	°C	-30 ~ +70	
storage temp	°C	-40 ~ +85	
dimension	mm	L8.5×W8.5×H4.0	See attached drawing
weight	gram	0.6	
material		LCP(Black)	
terminal		SMD type	See attached drawing
		(Plating Sn)	
environmental		RoHS	
protection regulation			

### **ENVIRONMENT TEST**

item	test condition	evaluation standard
high temp. test	After being placed in a chamber at +85°C for	After the test the part will meet specifications
3	96 hours.	without any degradation in appearance and
low temp. test	After being placed in a chamber at -40°C for 96 hours.	performance except SPL., after 4 hours at $\pm 25$ °C. The SPL will be in $\pm 10$ dBA compared with
thermal shock	The part will be subjected to 10 cycles.  One cycle shall consist of:  +85°C  -40°C  30 min  60 min	initial one.
temp./humidity cycle	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 $\pm 10$ dBA compared with	
	The part will be subjected to 72 hours of	initial one.	
	continuous operation at +70°C with 3.6V,		
	2730Hz applied.	-	
	LOW TEMPERATURE		
	The part will be subjected to 72 hours of		
	continuous operation at -30°C with 3.6V, 2730Hz		
	applied.		

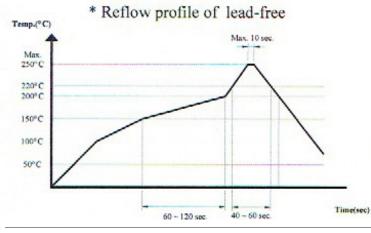
#### **TEST CONDITION**

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

#### **MECHANICAL CHARACTERISTICS**

ite	em	test condition	evaluation standard
SO	lderability	Lead terminals are immersed in solder bath of	90% min.lead terminals will be wet with solder
		+270±5°C for 3±1 seconds.	No interference in operation
SO	oldering heat resistance	The product followed the reflow profile to test	
		its reflow thermo-stability.	
te	rminal mechanical	Lead pads will be soldered on the pc board, and	No damage and cutting off
stı	rength	the force 9.8N(1.0Kg) will be applied behind the	
		part for 10 seconds.	
vil	bration	The part will be subjected to a vibration cycle of	After the test the part will meet specifications
		10Hz to 55Hz to 10Hz in a period of 1 minute.	without any damage in appearance and
		Total peak amplitude will be 1.52mm(9.3G). The	performance except SPL.
		vibration test will consist of 2 hours per axis in	SPL would be in $\pm 10$ dBA compared with initial
		each three axes (X,Y,Z). Total 6 hours.	one.
dr	op 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 TEMPERATURE PROFILE FOR REFLOW OVEN



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

Note 2: Peak reflow temperature of 250°C maximum of 10 seconds, with a maximum duration of 40-60 seconds between 220°C and 250°C

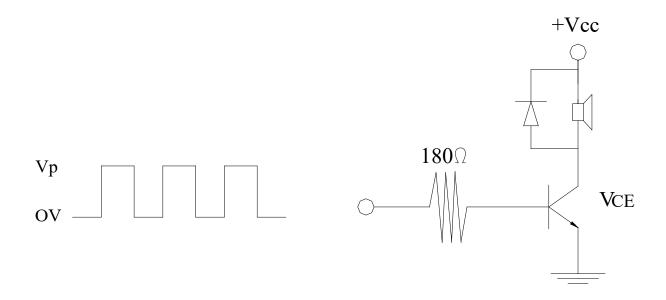


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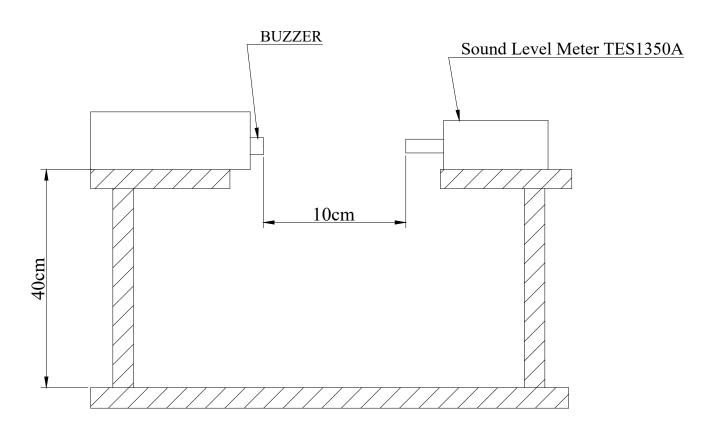
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# **MEASUREMENT TEST CIRCUIT**



# **INSPECTION FIXTURE**





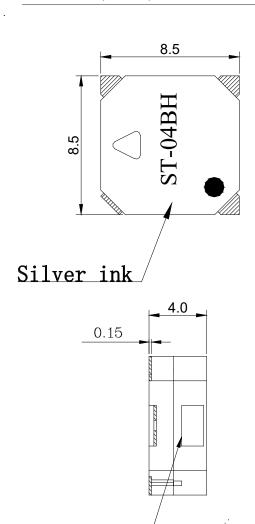
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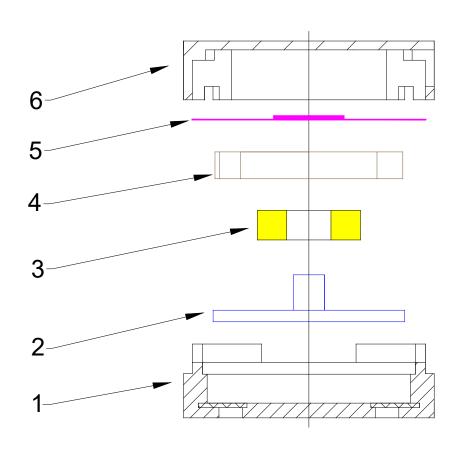
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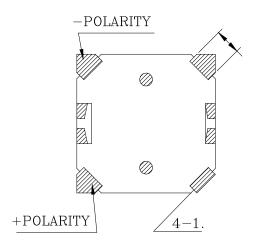
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# **DIMENSIONS**

Tolerance:±0.5 (unit: mm)







SOUND PORT

no	item	material	quantity
1	CASE	LCP	1
2	Core	Ferrum	1
3	Coil	Copper	1
4	Magnet ring	NdFeB	1
5	Diaphragm	Ferrum	1
6	CASE	LCP	1



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### **PACKING**

