

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**PRODUCT:** Electromagnetic Buzzer

**EDITION:** A/2016

Soberton Inc.

### THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER

#### **SPECIFICATION**

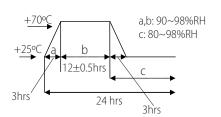
Test condition: TEMP= $+25\pm2$  °C Related humidity= $65\pm5\%$  Air pressure:  $860 \sim 1060$ mbar

item	unit	specification	condition
rated voltage	Vo-p	1.5	
operating volt	Vo-p	1.4 ~ 2.0	
mean current	mA	Max. 25	At rated voltage direct current
sound output	dBA	75	At 10cm(A-weight free air), at rated voltage direct
			current
rated frequency	Hz	3100 ± 400	
operating temp	°C	-20 ~ +60	
storage temp	°C	-30 ~ +70	
dimension	mm	φ12.0×H7.5	See attached drawing
weight	gram	2.0	
material		PPO (Black)	
terminal		Pin type (Plating Sn)	See attached drawing
environmental		RoHS	
protection regulation			

#### **ENVIRONMENT TEST**

LIVVII	TOTAL TEST			
	item	test condition	evaluation standard	
	high temp. test	After being placed in a chamber at +70°C for 96 hours.	After the test the part will meet specifications without any degradation in appearance and	
	low temp. test	After being placed in a chamber at -30°C for	performance except SPL, after 4 hours at +25°C.	
		96 hours.	The SPL will be in $\pm 10$ dBA compared with initial	
	thermal shock	The part will be subjected to 10 cycles.	one.	
		One cycle shall consist of:		
		70°C -30°C 30 min 30 min 60 min		
-	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**

test conditions	evaluation standard
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 ±10dBA compared with
The part will be subjected to 72 hours of	initial one.
continuous operation at +60°C with 1.5V	
applied.	
LOW TEMPERATURE	
The part will be subjected to 72 hours of	
continuous operation at -20°C with 1.5V applied.	
HIGH AND LOW VOLTAGE	
Applying 1.4 voltage and 2.0 voltage, available	
time 24 hours each.	
	The part will be subjected to 96 hours of continuous operation at room temperature.  HIGH TEMPERATURE The part will be subjected to 72 hours of continuous operation at +60°C with 1.5V applied.  LOW TEMPERATURE The part will be subjected to 72 hours of continuous operation at -20°C with 1.5V applied.  HIGH AND LOW VOLTAGE Applying 1.4 voltage and 2.0 voltage, available

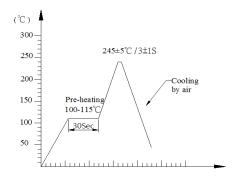
#### **TEST CONDITION**

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 +250±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 +250±5°C for 2±0.5 seconds.	
terminal mechanical strength	Apply the terminal with 1KG tension for 1 minute.	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 ±80dBA 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



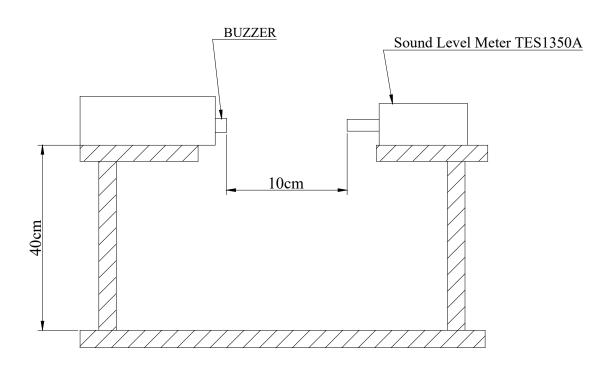


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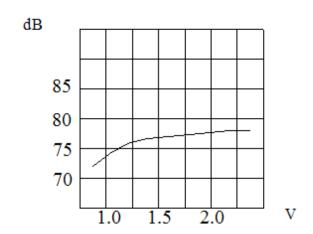
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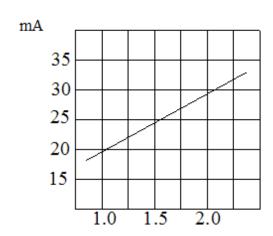
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#### **INSPECTION FIXTURE**



#### **FREQUENCY RESPONSE**







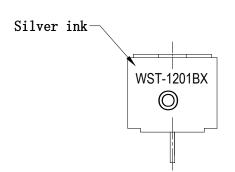
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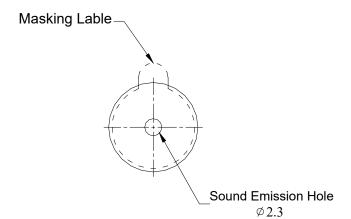
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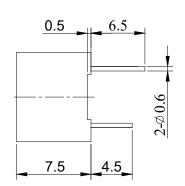
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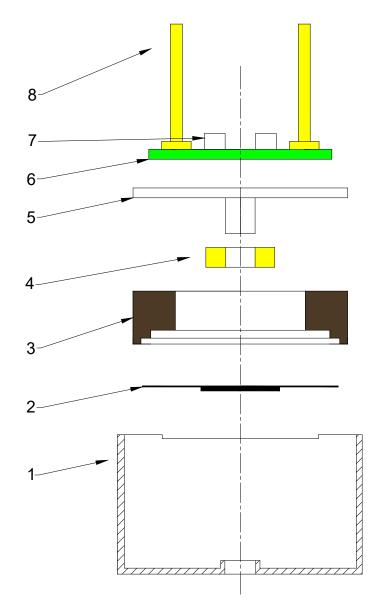
#### **DIMENSIONS**

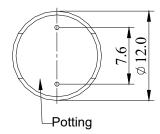
Tolerance:±0.5 (unit: mm)











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

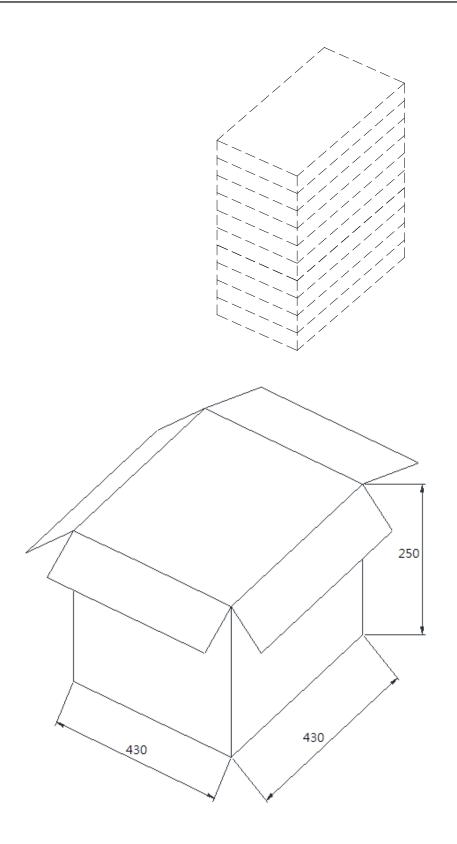


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## **PACKING**



packing box	LxWxH (mm)	pieces
Tray	190 x 190 x 25	100
Inner Cartons	210 x 210 x 220	1000
Outer Carton	430 x 430 x 250	4000