

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 ± 5 % Air pressure: $860 \sim 1060$ mbar

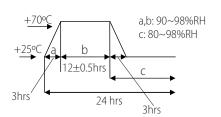
item	unit	specification	condition
rated voltage	Vo-p	5.0	
operating volt	Vo-p	4.0 ~ 6.0	
mean current	mA	Max. 40	At rated voltage direct current
sound output	dBA	85	At 10cm(A-weight free air), at rated voltage direct
			current
rated frequency	Hz	2300 ± 300	
operating temp	°C	-20 ~ +60	
storage temp	°C	-30 ~ +80	
dimension	mm	φ12.0×H9.5	See attached drawing
weight	gram	2.0	
material		PPO (Black)	
terminal		Pin type (Plating Sn)	See attached drawing
environmental		RoHS	
protection regulation			

ENVIRONMENT TEST

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 $\pm 10 \text{dBA}$ 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.	_	

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 ±10dBA compared with	
	The part will be subjected to 72 hours of	initial one.	
	continuous operation at +60°C with 5.0V		
	applied.		
	LOW TEMPERATURE	-	
	The part will be subjected to 72 hours of		
	continuous operation at -20°C with 5.0V applied.		
	HIGH AND LOW VOLTAGE	-	
	Applying 4 voltage and 6 voltage, available time		
	24 hours each.		

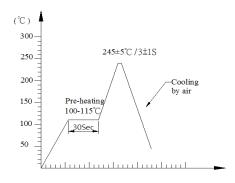
TEST CONDITION

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



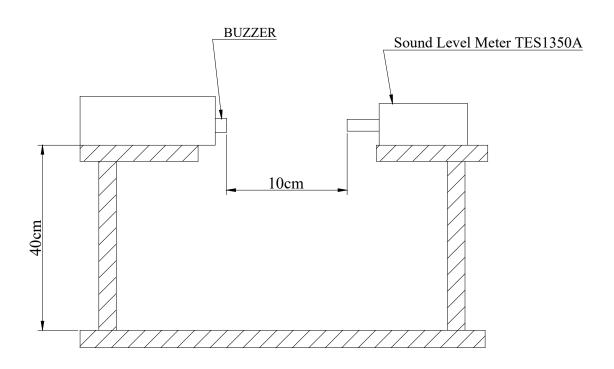


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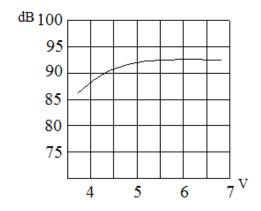
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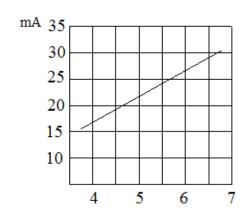
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INSPECTION FIXTURE



FREQUENCY RESPONSE







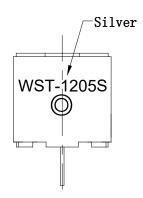
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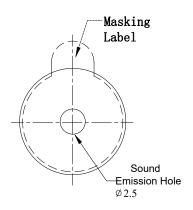
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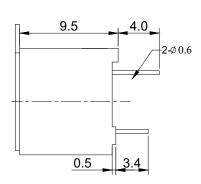
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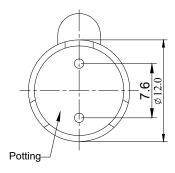
DIMENSIONS

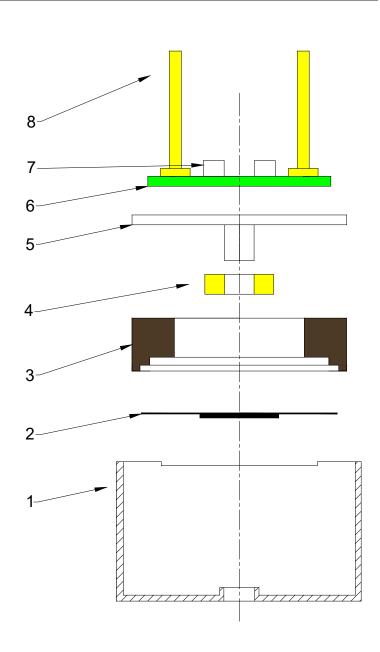
Tolerance:±0.5 (unit: mm)











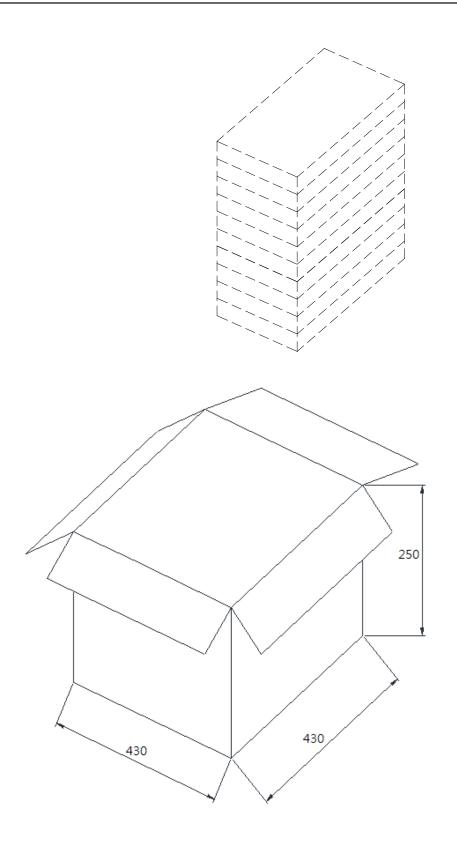
no	item	material	quantity
1	CASE	PPO	1
2	Diaphragm	Ferrum	1
3	Magnet ring	Poly+ferrite	1
4	Coil	Copper	1
5	Core	Ferrum	1
6	PCB	Epoxy glass fiber cloth + copper	1
7	Transistor	Epoxy + copper	2
8	PIN	Copper	2



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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