

PRODUCT: Electromagnetic Buzzer

EDITION: A/2017

Soberton Inc.

THIS SPECIFICATION APPLIES TO THE ELECTROMAGNETIC BUZZER

SPECIFICATION

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

item	unit	specification	condition
rated voltage	Vo-p	5.0	
operating voltage	Vo-p	3.0 ~ 7.0	
mean current	mA	MAX.40	At rated voltage direct current
coil resistance	Ω	47 ±5	At rated voltage
sound output	dBA	87	At 10cm (A-weight free air)
			At rated voltage direct current
rated frequency	Hz	2400 ±200	
operating temperature	°C	-30 ~ +70	
storage temperature	°C	-40 ~ +80	
dimension	mm	12.8 × 12.8 × 10.0	See appearance drawing.
weight	gram	2.5	
material		PPS(gray)	
terminal		SMD Type	See appearance drawing
		(Plating Sn)	
environmental protection		RoHS	
regulation			

ENVIRONMENT TEST

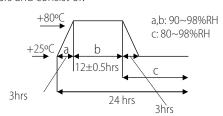
item	test condition and requirement	6
high temperature test	After being placed in a chamber at +80°C for 96 hours.	i
low temperature test (storage)	After being placed in a chamber at -40°C for 96 hours.	3
thermal shock	The part will be subjected to 10 cycles. One cycle shall consist of: +80°C -40°C 30 min 60 min	\

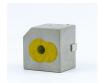
evaluation standard

After the test the part will meet specifications without any degradation in appearance and performance except SPL, after 4 hours at ± 25 °C. The SPL shall be in ± 10 dBA compared with initial one.

temperature/humidity cycle test

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





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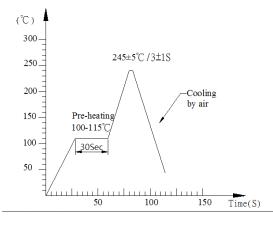
RELIABILITY TEST

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
	+25 ±10°C with 5.0V, 2400Hz	Allowable variation of SPL after test: ±10dB
	HIGH TEMPERATURE	
	The part will be subjected to 72 hours of	
	continuous operation at +70°C with 5.0V,	
	2400Hz applied	
	LOW TEMPERATURE	
	The part will be subjected to 72 hours of	
	continuous operation at -30°C with 5.0V,	
	2400Hz applied	
TEST CONDITION		
Standard Test Condition:	a) Temperature : $+5 \sim +35$ °C b) Humidity : $45 \sim 85$ °C	% 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°C for 3 ±0.5 seconds	90% min. lead terminals will be wet with solder
soldering heat resistance	Lead terminals are immersed in soldering bath of +250±5℃ for 2±0.5 seconds.	No interference in operation.
terminal mechanical strength	Apply the terminal with 1KG strength 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 10dBA compared with the initital 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). A total of 9 times.	

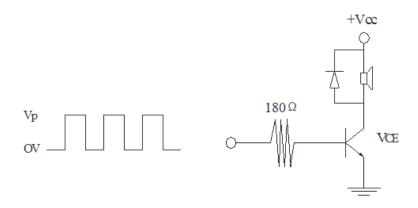
RECOMMENDED WAVE SOLDERING TEMPERATURE CURVE



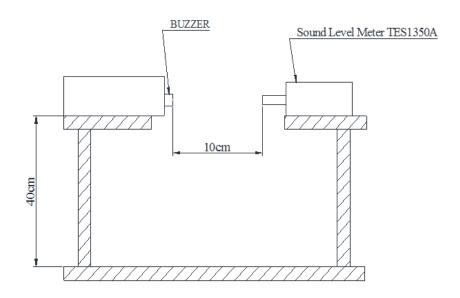
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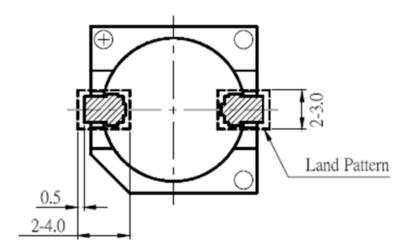
MEASUREMENT METHOD



INSPECTION FIXTURE



RECOMMENDED LAND PATTERN





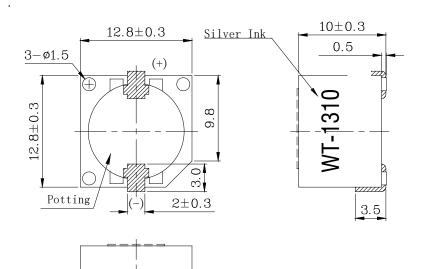
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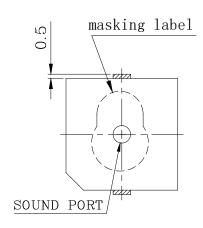
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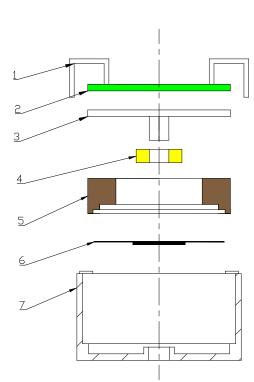
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DIMENSIONS

Tolerance:±0.5 (unit: mm)







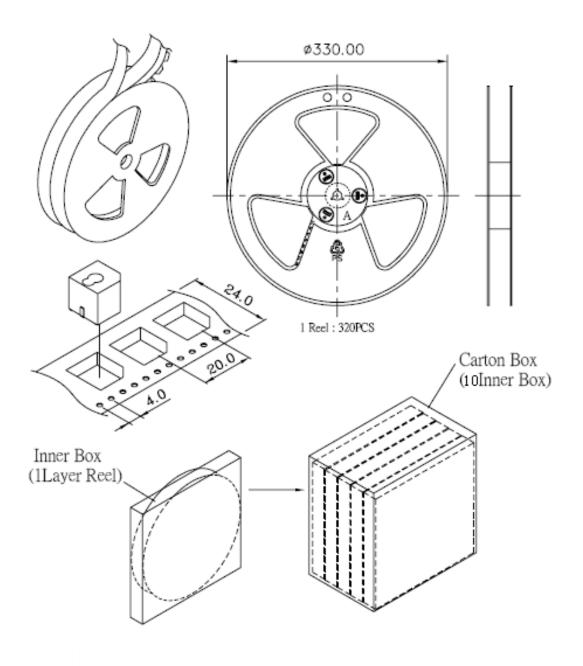
no	components	material	quantity
1	PIN	Copper	2
2	PCB	Epoxy glass fiber cloth + copper	1
3	Core	Ferrum	1
4	Coil	Copper	1
5	Magnet ring	Poly+Ferrite	1
6	Diaphragm	Ferrum	1
7	Case	PPS	1

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PACKING



packing box	LxWxH(mm)	pieces
Inner Box	340x340x40	1 x 320 = 320pcs
Carton box	360 x 360 x 420	10 x 320 = 3,200pcs