



**MODEL:** PB-2410-1  
**PRODUCT:** Piezo Buzzer  
**EDITION:** A/2017

**THIS SPECIFICATION APPLIES TO THE PIEZO BUZZER**

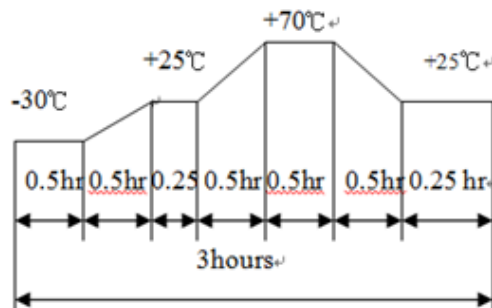
**SPECIFICATION**

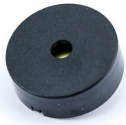
Test condition: TEMP=+25±2 °C Related humidity=65±5%

item	unit	specification	condition
rated voltage	VDC	12.0	
operating volt	VDC	6.0 ~ 15.0	
current consumption	mA	Max. 30	At 12VDC, square wave, 3.5kHz
sound output	dba	86	At 10cm / 12VDC, square wave, 3.5kHz
resonant frequency	Hz	3400	
operating temp	°C	-20 ~ +70	
storage temp	°C	-30 ~ +80	
dimension	mm	ø 23.5 x 9.5	See attached drawing
weight	gram	3.0	
material		PPO (Black)	
terminal		Pin type (plating Sn)	See attached drawing
environmental protection regulation		RoHS	

**ENVIRONMENT TEST**

item	test condition	evaluation standard
high temp. test	After being placed in a chamber at +70°C for 96 hours.	Being placed for 4 hours at +25°C, buzzer will be measured.
low temp. test	After being placed in a chamber at -30°C for 96 hours.	The value of oscillation, frequency / current consumption would be in ±10% compared with initial one.
Humidity test	After being placed in a chamber at +70°C, and 90±5% relative humidity for 96hours	The SPL would be in ±10dB compared with initial one.
Temp. cycle test	The part will be subjected to 5 cycles. One cycle shall be consist of:	





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**RELIABILITY TEST**

item	test conditions	evaluation standard
operating life test	CONTINUOUS LIFE TEST 48hours of continuous operation at +55°C with maximum rated voltage applied.	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 would be in $\pm 10$ dba compared with initial one.
	INTERMITTENT LIFE TEST A duty cycle of 1 minute on, 1 minutes off, a minimum of 1000 times at +25 $\pm$ 2°C and maximum rated voltage applied	

**TEST CONDITION**

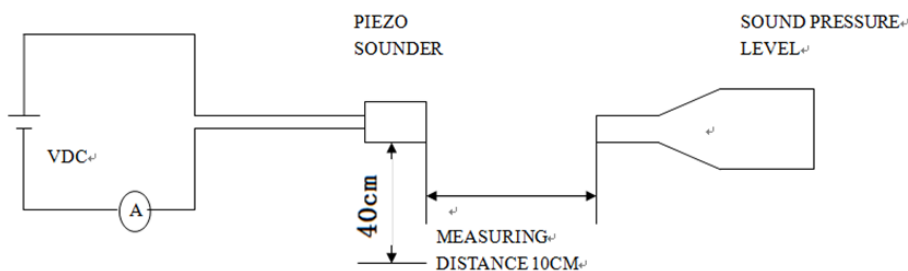
Standard Test Condition: a)Temperature: +5~+35°C b)Humidity:45~85% c)Pressure: 860~1060mbar

**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 $\pm$ 5°C for 3 $\pm$ 1 seconds.	90% min. lead terminals will be wet with solder (except the edge of the terminal)
soldering heat resistance	Lead terminal are immersed in soldering bath of +245 $\pm$ 5°C for 3 $\pm$ 1 seconds..	No interference in operation.
terminal mechanical strength	The force 10 seconds of 9.8N is applied to each terminal in axial direction.	No damage and cutting off.
vibration	Buzzer will be measured after being applied vibration of amplitude of 1.5mm with 10Hz to 55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours	The value of oscillation frequency current consumption would be in $\pm 10\%$ 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). A total of 9 times.	The SPL would be in $\pm 10$ dB compared with initial one

**MEASURING METHOD**

S.P.L Measuring Circuit  
 Input Signal: 12V p-p, 3.5kHz



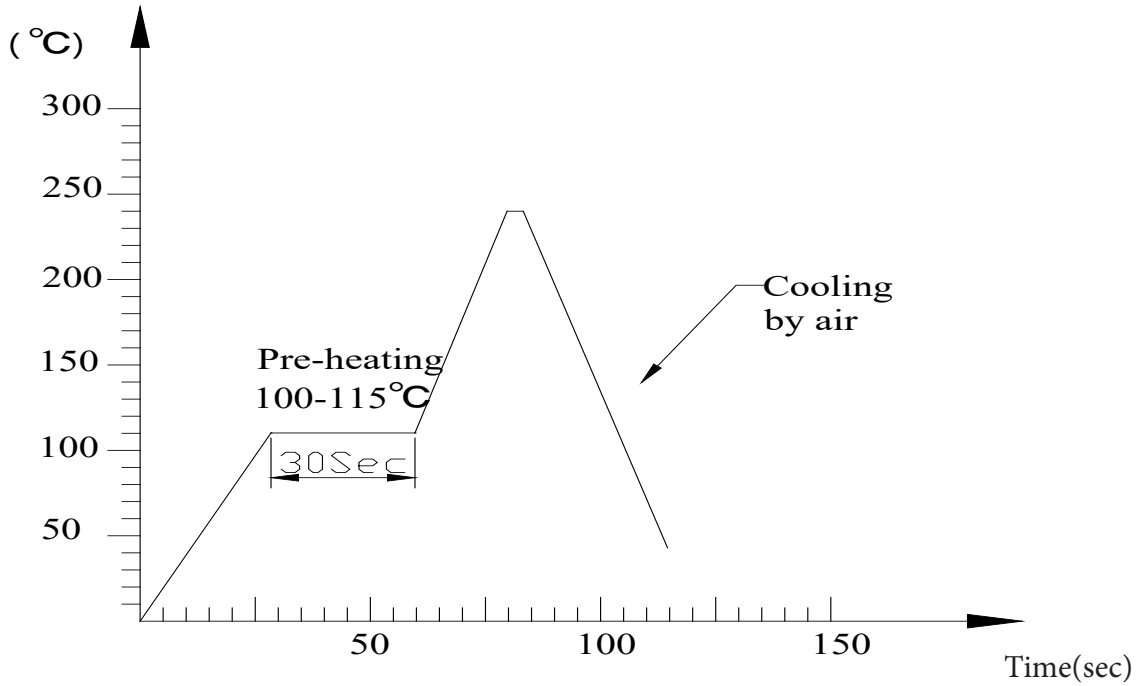
Mic: RION S.P.L meter TES 135 or equivalent  
 S.G: Hewlett Packard 33120A Function Generator or equivalent



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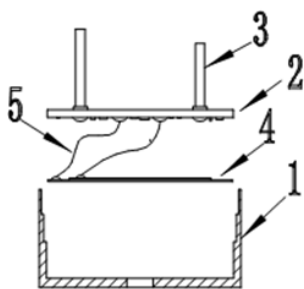
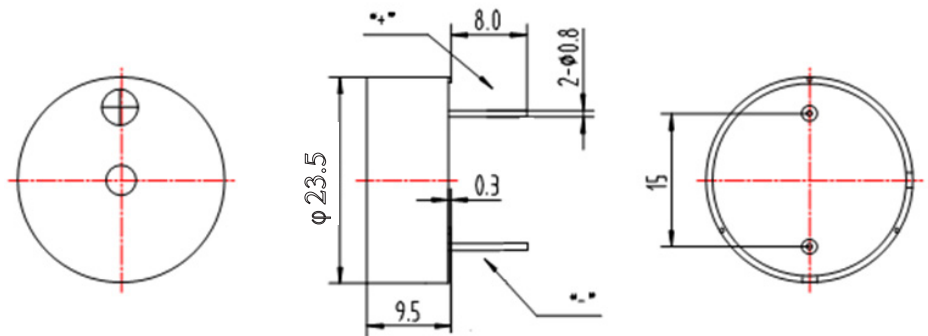
**RECOMMENDED WAVE SOLDERING TEMPERATURE CURVE**

+245°C/±3 seconds

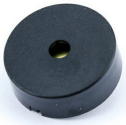


**DIMENSION**

Tolerance:±0.5 (unit: mm)

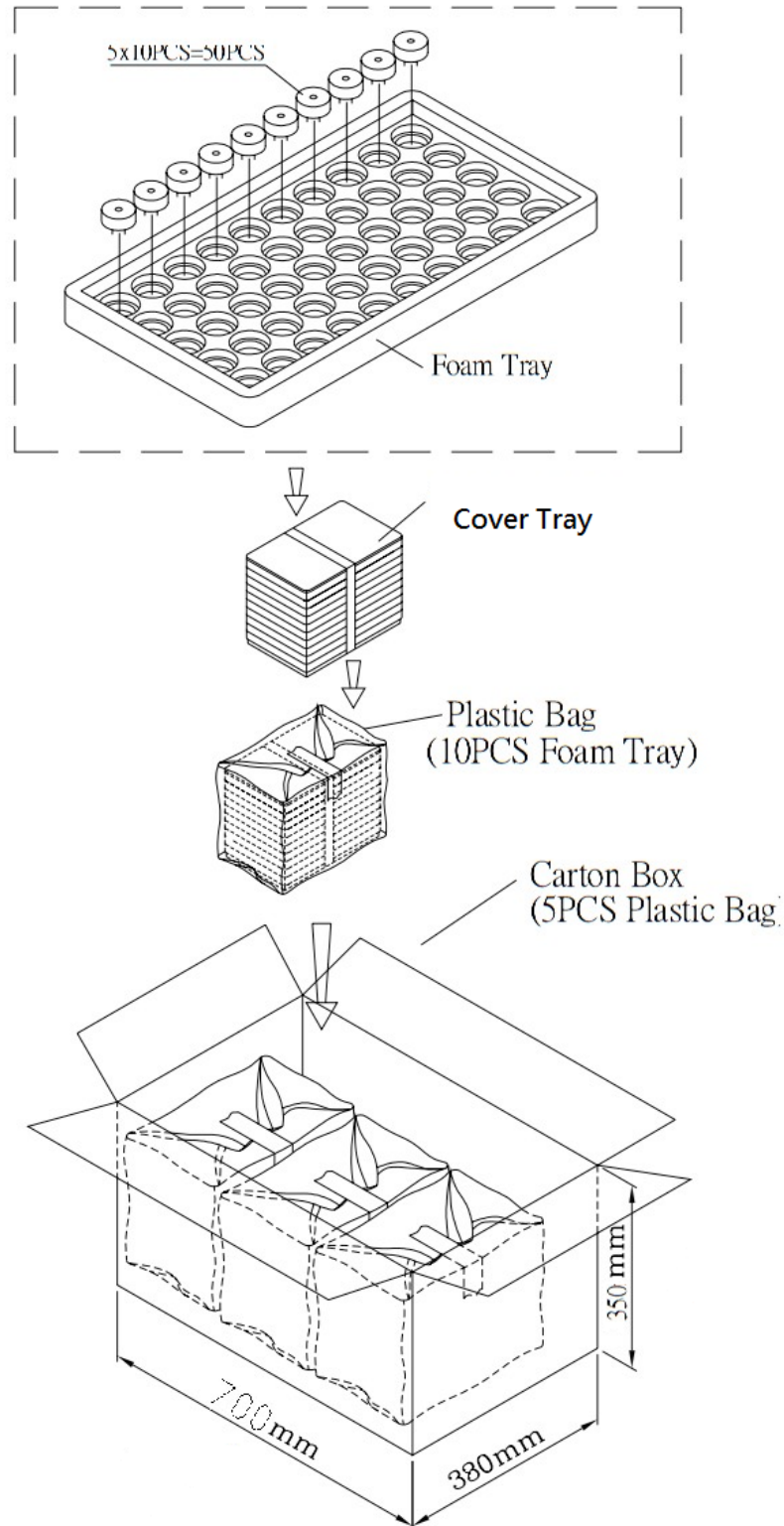


no	item	material	qty
1	Case	PPO	1
2	PCB	Epoxy	1
3	Pin	Copper	2
4	Piezo	Brass+ceramic	1
5	Wire	Copper	2



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**PACKING**



Foam Tray	320mmx170mmx25mm	1x50PCS=50PCS
Plastic Bag		10x50PCS=500PCS
Carton Box	700mmx380mmx350mm	4x500PCS=2000PCS