



MODEL: PB-4216-2
PRODUCT: Piezo Buzzer
EDITION: A/2017

THIS SPECIFICATION APPLIES TO THE PIEZO BUZZER

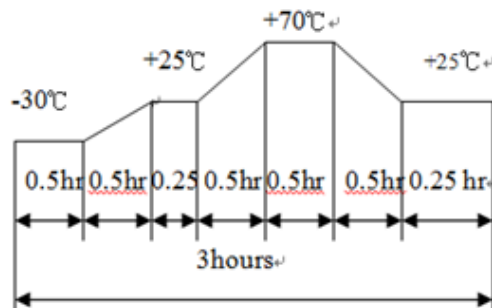
SPECIFICATION

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

item	unit	specification	condition
rated voltage	VDC	12.0	
operating volt	VDC	3.0 ~ 20.0	
current consumption	mA	Max. 10	At 12VDC
sound output	dba	100	At 30cm / 12VDC
resonant frequency	Hz	2800	
operating temp	°C	-20 ~ +50	
storage temp	°C	-30 ~ +60	
dimension	mm	60 × 41.6 x 16	See attached drawing
weight	gram	9.0	
material		ABS (Black)	
terminal		Wire type	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 ± 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 $+25\pm 2^\circ\text{C}$ and maximum rated voltage applied	

TEST CONDITION

Standard Test Condition: a)Temperature: $+5\sim +35^\circ\text{C}$ b)Humidity:45~85% c)Pressure: 860~1060mbar

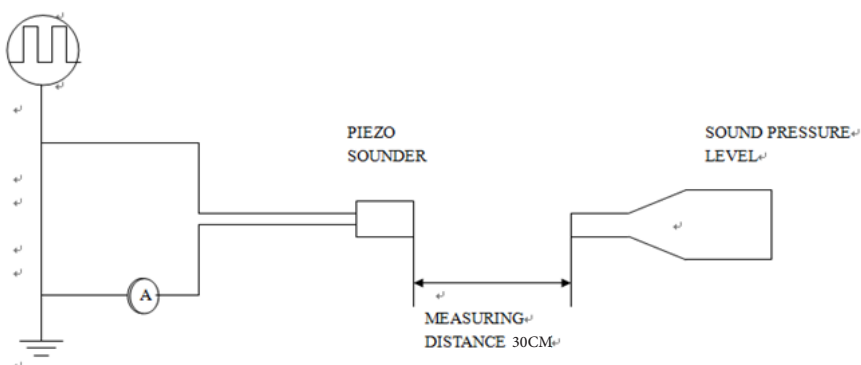
MECHANICAL CHARACTERISTICS

item	test conditions	evaluation standard
solderability	Lead terminal are immersed in rosin for 5 seconds and then immersed in solder bath of $+260\pm 5^\circ\text{C}$ for 3 ± 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 $+260\pm 5^\circ\text{C}$ for 3 ± 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 ± 10 dB compared with initial one

MEASURING METHOD

S.P.L Measuring Circuit

Input Signal: 12.0V DC



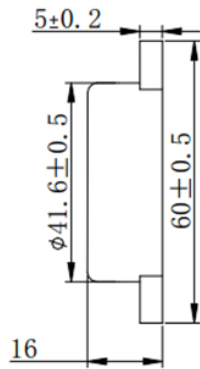
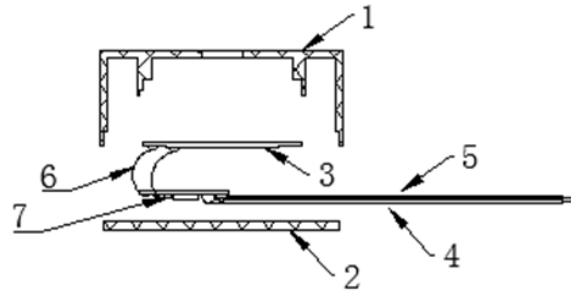
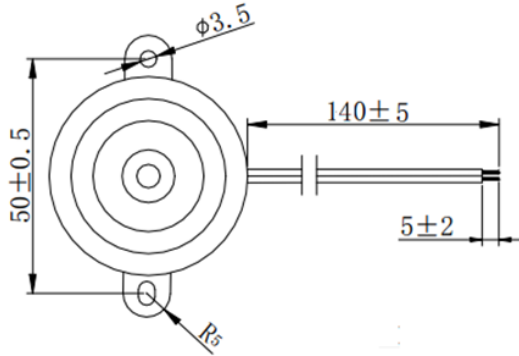
Mic: RION S.P.L meter TES 135 or equivalent



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APPEARANCE DRAWING

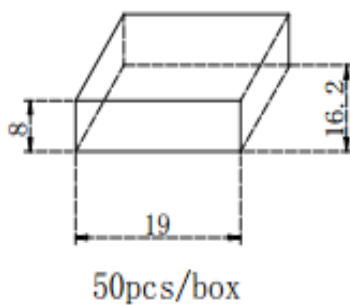
Tolerance:±0.5 (unit: mm)



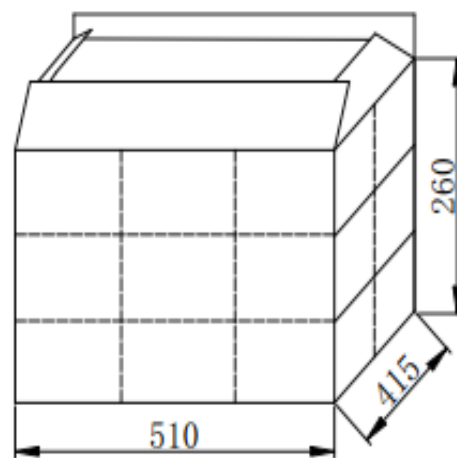
no	item	material
1	Case	PPO
2	Cover	PPO
3	Piezo	Brass + Ceramics
4	Wire	UL1007 26#
5	Wire	UL1007 26#
6	Wire	Copper
7	PCB	Epoxy

PACKING

75 pcs per PE tray
 3 tray per box
 12 boxes per carton (75pcs x12)



50pcs/box



18boxes/CTN

900pcs/CTN

Unit: mm