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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MODEL: PB-4216-1
PRODUCT: Piezo Buzzer
EDITION: A/2017

Soberton Inc.

THIS SPECIFICATION APPLIES TO THE PIEZO BUZZER

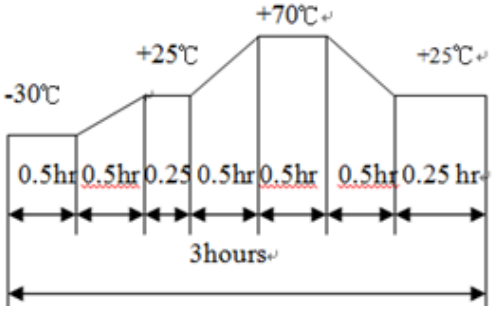
SPECIFICATION

Test condition: TEMP=+25±2 ºC 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	96	At 30cm / 12VDC
resonant frequency	Hz	2800	
operating temp	ºC	-20 ~ +50	
storage temp	ºC	-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 +70ºC for 96 hours.	Being placed for 4 hours at +25ºC, buzzer will be measured. The value of oscillation, frequency / current consumption would be in ±10% compared with initial one. The SPL would be in ±10dB compared with initial one.
low temp. test	After being placed in a chamber at -30ºC for 96 hours.	
Humidity test	After being placed in a chamber at +70ºC, and 90±5% relative humidity for 96hours	
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 +55ºC 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 +25ºC. The SPL would be in ±10dBA compared with initial one.
	INTERMITTENT LIFE TEST A duty cycle of 1 minute on, 1 minutes off, a minimum of 1000 times at +25±2ºC and maximum rated voltage applied	

TEST CONDITION

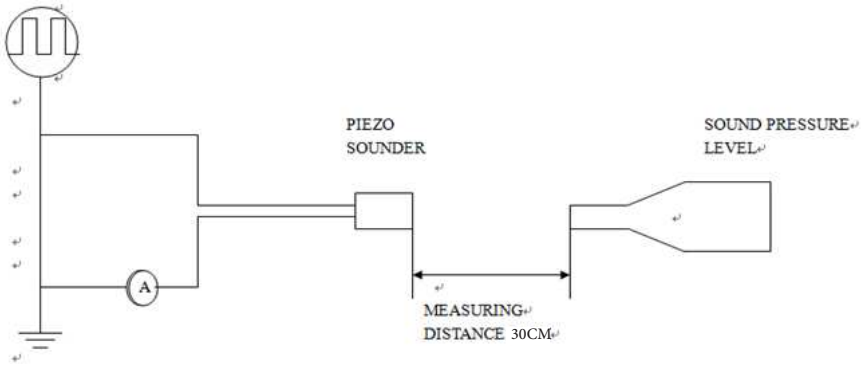
Standard Test Condition: a)Temperature: +5~+35ºC b)Humidity:45~85% c)Pressure: 860~1060mbar

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±5ºC 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±5ºC 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 ±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±10dB 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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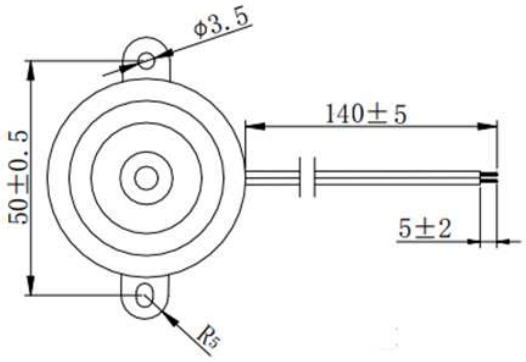
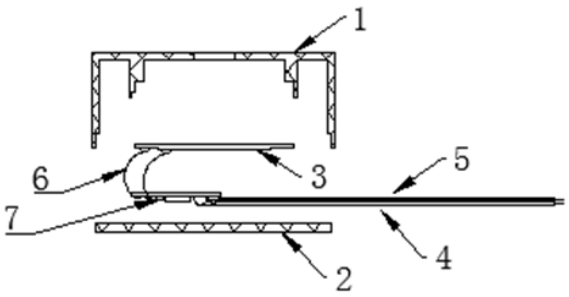
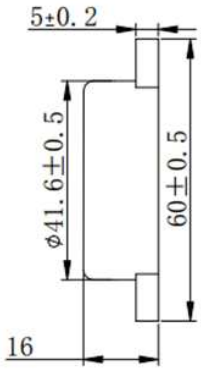
APPEARANCE DRAWING

Tolerance:±0.5 (unit: mm)



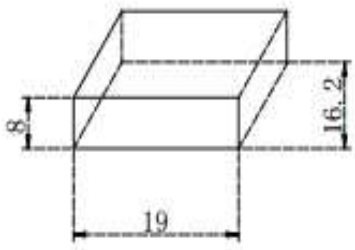




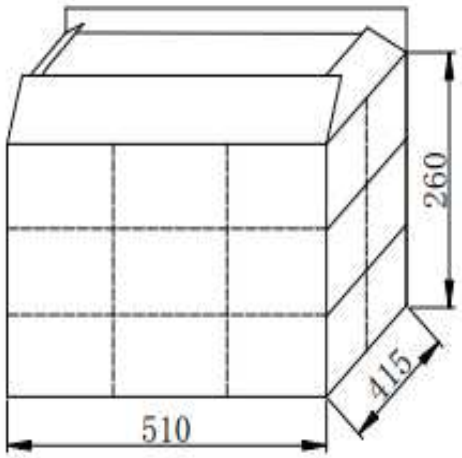
no	item	material
1	Case	PPO
2	Cover	PPO
3	Piezo	Brass + Ceramics
4	Wire	UL1007 26#
5	Wire	UL1007 26#
6	Wire	Copper
7	PCB	Epoxy

PACKING

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



50pcs/box



18boxes/CTN
900pcs/CTN

Unit : mm