



**MODEL:** PB-2211  
**PRODUCT:** Piezo Buzzer  
**EDITION:** A/2017

**THIS SPECIFICATION APPLIES TO THE PIEZO BUZZER**

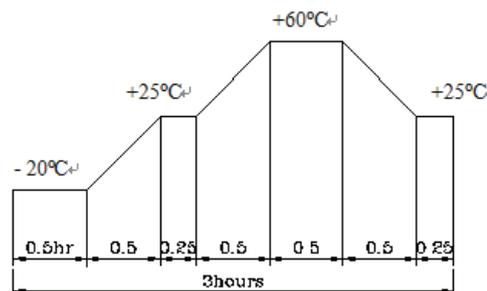
**SPECIFICATION**

Test condition: TEMP=+25±2 °C Related humidity=65±5% Air pressure: 860 ~ 1060mbar

item	unit	specification	condition
rated voltage	DC	12.0	
operating volt	VDC	3 ~ 28	
tone nature		constant	
sound pressure level	dB	85	At 10cm and at rated voltage
current consumption	mA	8 Max	At rated voltage
oscillation frequency	KHz	4500	
operating temp	°C	-20 ~ +70	
storage temp	°C	-30 ~ +80	
dimension	mm	Φ22 x H11.0	See appearance drawing
weight (max)	gram	4.0	
material		ABS (Black)	
leading pin		wire type	See appearance drawing
environmental protection regulation		RoHS	

**ENVIRONMENT TEST**

item	test condition	evaluation standard
high temp. test (storage)	After being placed in a chamber with 70 ±2°C for 96 hours and then being placed in normal condition for 2 hours.	Allowable variation of SPL after test: ±10dB.
low temp. test (storage)	After being placed in a chamber with -30 ±2°C for 96 hours and then being placed in normal condition for 2 hours.	Allowable variation of SPL after test: ±10dB.
humidity test	After being placed in a chamber with 90 - 95% R.H. at 40±2°C for 96 hours and then being placed in normal condition for 2 hours.	Allowable variation of SPL after test: ±10dB.
temp./humidity test	The part will be subjected to 5 cycles. One cycle shall be consist of:	Allowable variation of SPL after test: ±10dB.





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## RELIABILITY TEST

item	test conditions	evaluation standard
operating life test	<p>CONTINUOUS LIFE TEST            48 hours of continous operation at +55°C with maximum rated voltage applied</p> <p>INTERMITTENT LIFE TEST            A duty cycle of 1 minute on, 1 minute off, a miniumum of 1000 times at +25±2°C and maximum rated voltage applied</p>	<p>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 ±80dBA compared with initial one.</p>

## MECHANICAL CHARACTERISTICS

item	test conditions	evaluation standard
drop test	Drop on a hard wood board of 4cm thick, any direction, 6 times, at the height of 75cm.	Allowable variation of SPL after test: ±10dB.
vibration test	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.	Allowable variation of SPL after test: ±10dB.
solderability test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300 ±5°C for 3 ±1 seconds.	90% min. lead terminals will be wet with solder (except the edge of terminals)
terminal strength pulling test	The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.	No visible damage and cutting off.

### TEST CONDITION

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

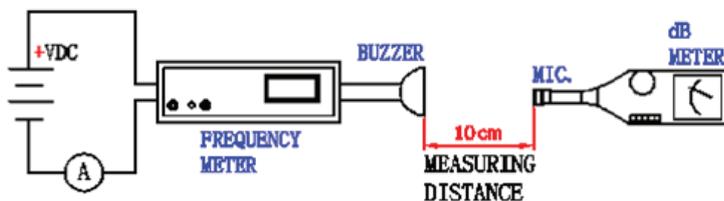
## MEASURING METHOD

### STANDARD MEASUREMENT CONDITIONS

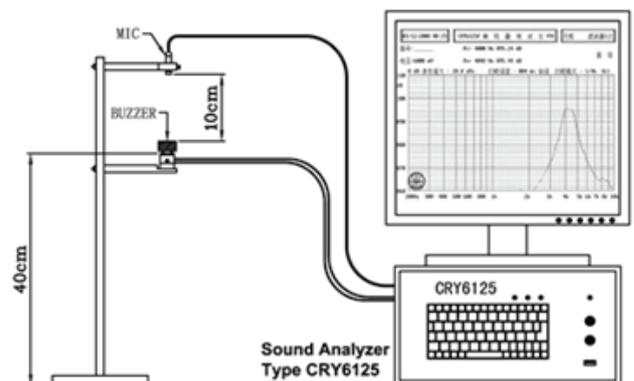
Temperature: 25 ±2°C Humidity: 45 ~ 65%

### ACOUSTIC CHARACTERISTICS

The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below:



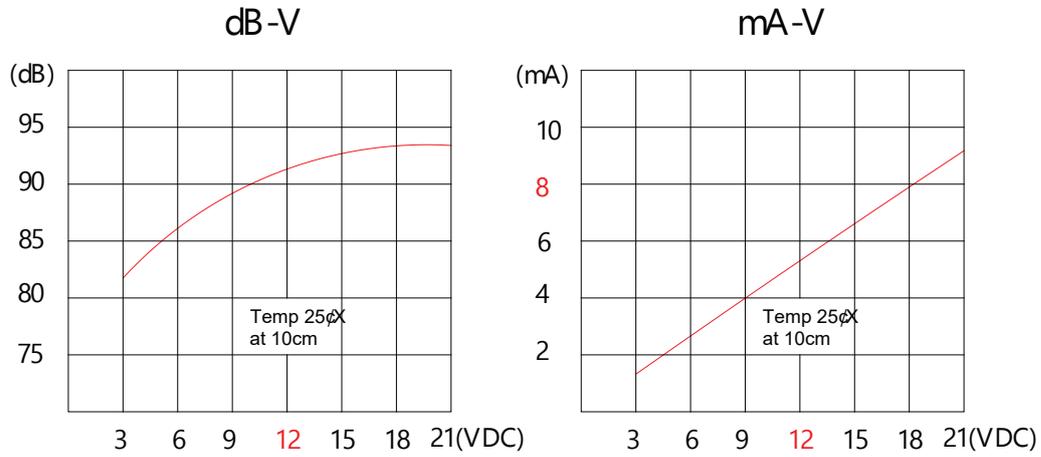
In the measuring test, buzzer is placed as follows:





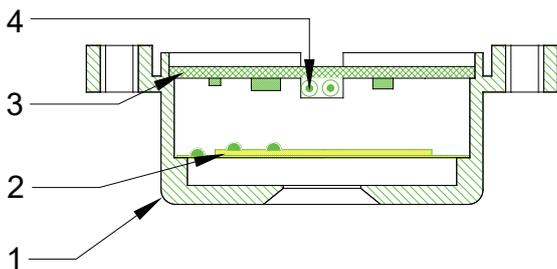
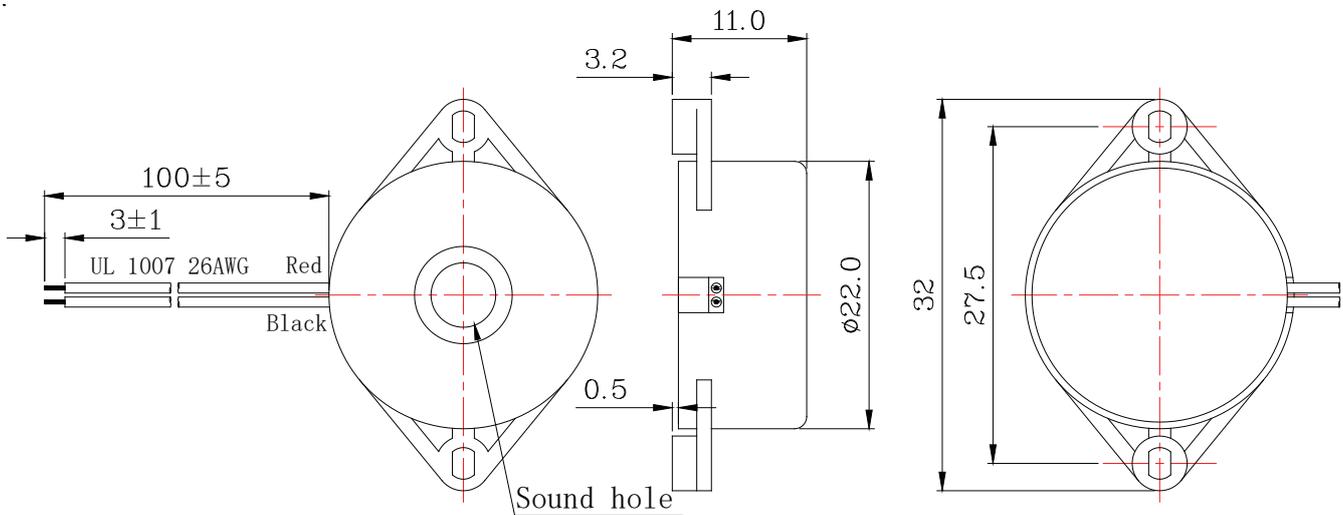
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**VOLTAGE/CURRENT/SOUND PRESSURE CHARACTERISTICS**



**DRAWING**

Tolerance: ±0.5 Unit: mm



no	item	material
1	case	PPO
2	diaphragm	Copper
3	circuit board	epoxy glass fiber
4	electronic wire	1007 26# 110*3*3



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**PACKING**

1 bag	100pcs
1 inner box	200pcs
1 carton box	2000pcs

