



**ROHS**

## SPECIFICATION OF PRODUCT

### 承认书

CUSTOMER: \_\_\_\_\_  
DESCRIPTION:         Piezo Buzzer          
FUSHENG P/N:         FSD-3020-12V          
CUSTOMER P/N: \_\_\_\_\_  
DATE:         2018-8-28        

CUSTOMER	APPROVER	CHECKER
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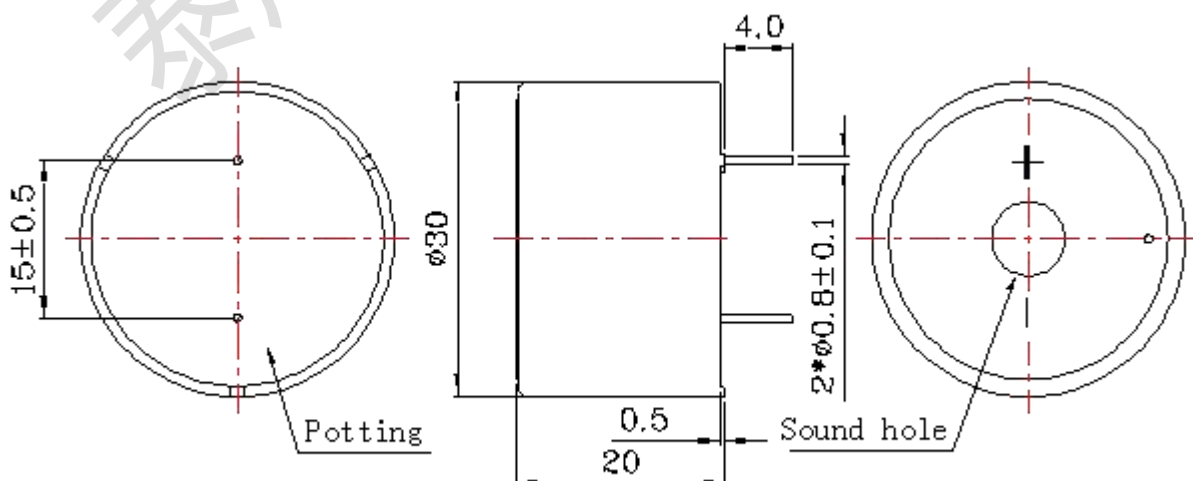
邮箱: sales@electronic-tech.cn

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## 1.SPECIFICATION 规格

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	3500	
2	Operating Voltage	VDC	3 ~ 20	
3	Rated Voltage	VDC	12	
4	Current Consumption	mA	MAX. 15	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 100	at 10cm at Rated Voltage
6	Operating Temperature	°C	-20 ~ +70	
7	Storage Temperature	°C	-30 ~ +80	
8	Dimension	mm	Φ30.0 x H20	See appearance drawing
9	Weight (MAX)	gram	8	
10	Housing Material		PPO( Black )	
11	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
12	Environmental Protection Regulation		RoHS	

## 2. APPEARANCE DRAWING 尺寸图



Tol :  $\pm 0.5$

Unit: mm

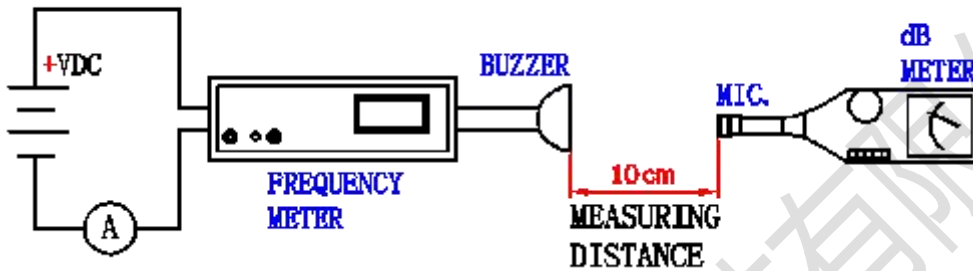
### 3. TESTING METHOD 测量方式

#### Standard Measurement conditions

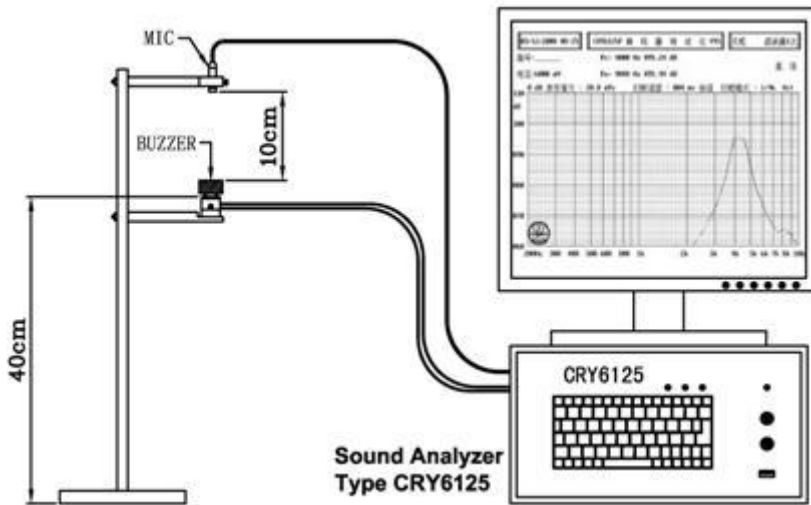
Temperature:  $25 \pm 2^\circ\text{C}$  Humidity: 45-65%

#### Acoustic Characteristics:

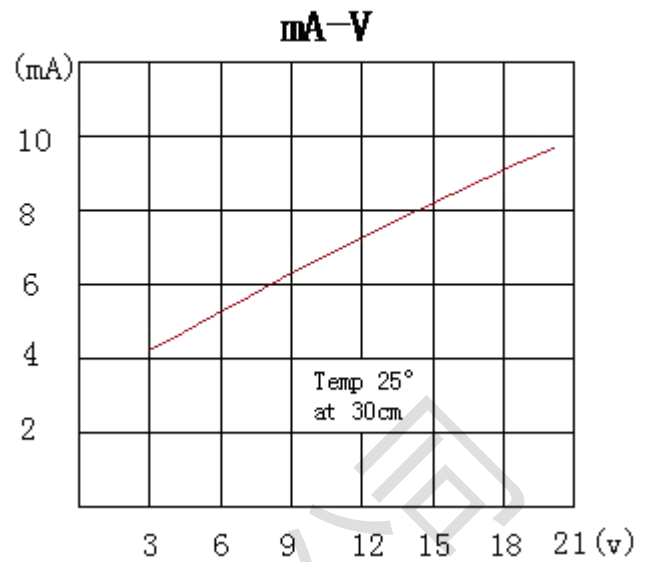
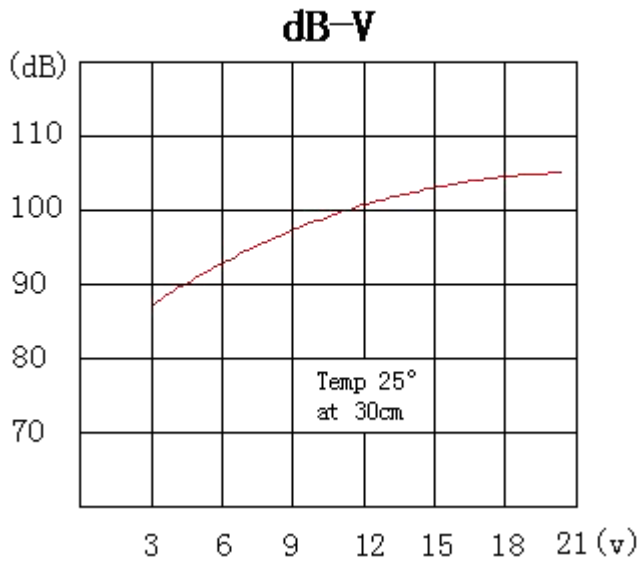
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



In the measuring test, buzzer is placed as follows:



### 4. VOLTAGE / CURRENT / SOUND PRESSURE CHARACTERISTICS



## 5. RELIABILITY TEST 可靠性测试

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with 80 °C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
2	Low Temperature Test (Storage)	After being Placed in a chamber with -30 °C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at 40 °C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
4	Temperature Cycle Test	The part shall be subjected to 5 cycles. One cycle shall be consist of: <p style="text-align: center;">-20°C      +25°C      +70°C      +25°C</p> <p style="text-align: center;">0.5hr    0.5    0.25    0.5    0.5    0.5    0.25</p> <p style="text-align: center;">3hours</p> Allowable variation of SPL after test: 10dB.
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm . Allowable variation of SPL after test: 10dB.

6	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours . Allowable variation of SPL after test: 10dB.
7	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 shall be wet with solder (Except the edge of terminals).
8	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
一般测试条件	:	a) 温度 : +5 ~ +35°C	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2°C	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar

