



**APPROVAL SHEET
FOR
PIEZO BUZZER**

常州富鸿达电子有限公司

CHANG ZHOU FHD ELECTRONICS CO., LTD.

CLUE No.:

OUR PART No.:

MODEL No.: BP1411C-20-P5.0

CUSTOMER PART No.:

CUSTOMER	APPROVED	CHECKED

Add: Xujia Industrial Park, ZhengLu Town, Changzhou City, Jiangsu China.

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Specification for Piezoelectric Ceramic Buzzer Pin Type		Des.	Page 2 of 5
		Wang Min	Update/2019-12-30
Model: BP1411C-20-P5.0	P/N:	Chk.	Apr.

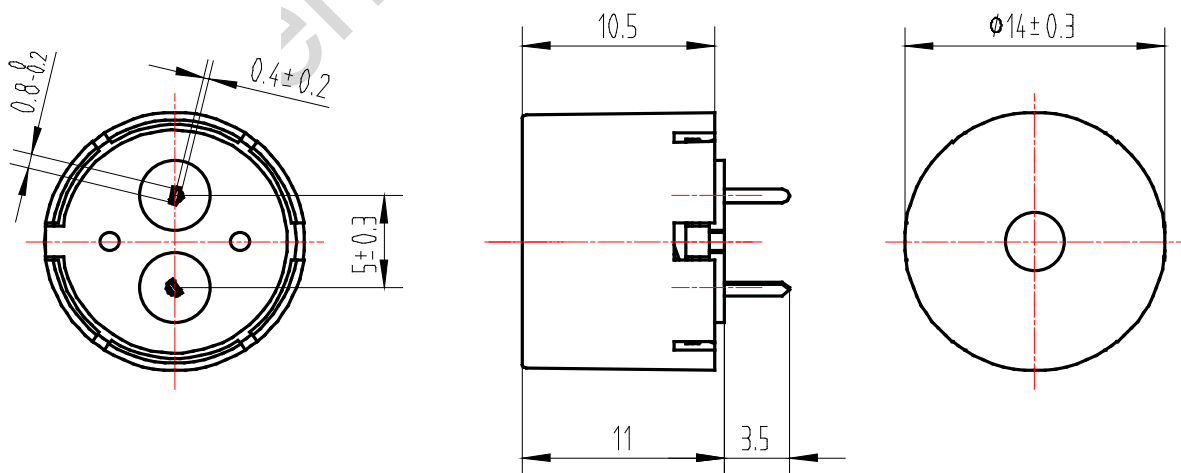
1. Document revision history

修改时间	版本	修改页次	修改内容	确认人

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2. Technical Parameter Measuring condition Part shall be measured under a condition (Temperature: 5~35°C, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3°C, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~1060hPa) is regulated to measure.		
1	Resonant Frequency	2000Hz
2	Operating Voltage	3~20 Vp-p
3	Rated Current	Max.3mA , At 2KHz 50% duty Square Wave 5Vp-p
4	Sound Output at 10cm	Min.70dB, At 2KHz 50% duty Square Wave 5Vp-p
5	Capacitance	---
6	Operating Temperature	-20°C~+70°C
7	Store Temperature	-30°C~+85°C
8	Net Weight	Approx 0.9g
9	RoHS	Yes

3. Dimensions Unit: mm



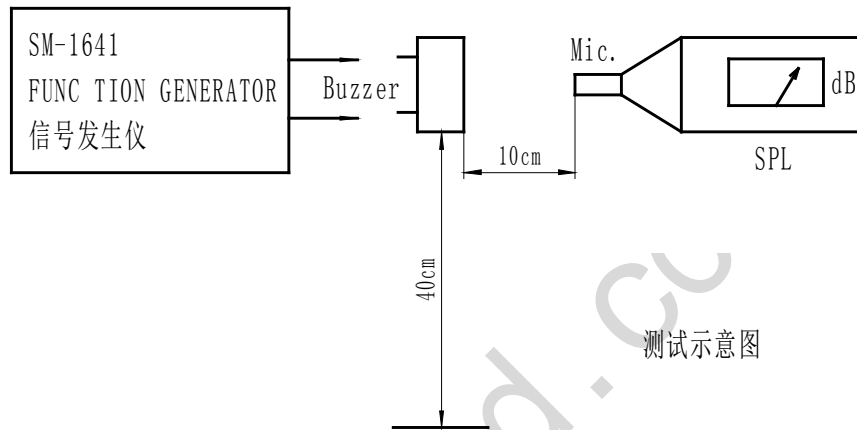
*Unit: mm; Tolerance: ± 0.5 mm Except Specified

*Housing Material: Black PBT

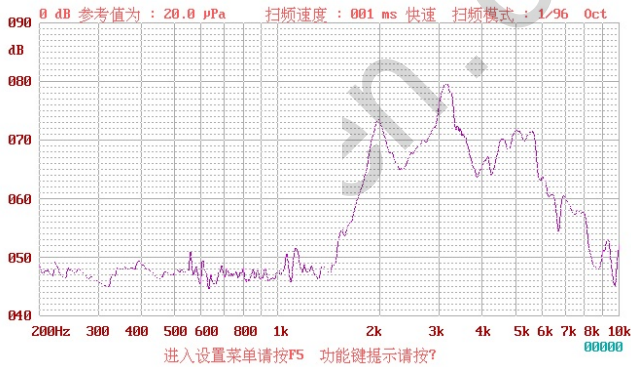
Specification for Piezoelectric Ceramic Buzzer Pin Type		Des.	Page 4 of 5
		Wang Min	Update/2019-12-30
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4. Electrical And Acoustical Measuring Condition

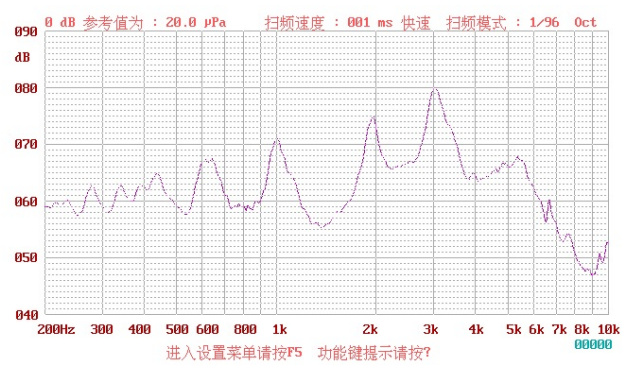
Recommended Setting



5. Frequency Response



3.6vrms 正弦波@10cm



5Vp-p 50% duty Square wave@10cm

Specification for Piezoelectric Ceramic Buzzer Pin Type		Des.	Page 5 of 5
		Wang Min	Update/2019-12-30
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6. Reliability Test

After any following tests the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall not deviate more than -5 dB from the initial value

a) Ordinary Temperature Life Test

The part shall be subjected to 96 hours at $25 \pm 10^\circ\text{C}$. Input rated voltage Resonant frequency, 1/2 duty Square wave.

b) High Temperature Test

The part shall be capable of with standing a storage temperature of $+85^\circ\text{C}$ for 96 hours.

c) Low Temperature Test

The part shall be capable of with standing a storage temperature of -30°C for 96 hours.

d) Humidity Test

Temperature: $+40^\circ\text{C} \pm 3^\circ\text{C}$ Relative Humidity: 90%~95% Duration: 48 hours and expose to room temperature for 6 hours

e) Temperature Shock Test

Temperature: $60^\circ\text{C} / 1\text{hour} \rightarrow 25^\circ\text{C} / 3\text{hours} \rightarrow -20^\circ\text{C} / 1\text{hour} \rightarrow 25^\circ\text{C} / 3\text{hours}$ (1cycle)
Total cycle: 10 cycles

f) Drop Test

Standard Packaging From 75cm (Drop on hard wood or board of 5cm thick, three sides, six plain.)

g) Vibration Test

Vibration: 1000cycles /min. Amplitude: 1.5mm, Duration: 1 hour in each 3 axes

Note:

As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter it.

7. Recommended the wave soldering temperature

