

BUZZER

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1. SPECIFICATIONS

Parameter	Unit	Conditions / Description	MIN	TYP	MAX
Operating Voltage	Vp-p		1		20
Rated Voltage	Vp-p			6	
Rated Current	mA	Applying rated voltage			2
SPL	dBA	Applying rated voltage (resonance Frequency 4.000Hz, square wave), in 10cm distance	82		
Resonance Frequency	Hz		3.500	4.000	4.500
Capacitance	pF	At 100Hz	7.000	10.000	13.000
Housing Material				PBT	
Pin Material				PHOSPHOR BRONZE	
Contact				PIN	
Packaging				TRAY	
Operating Temperature	°C		-20		+70
Storage Temperature	°C		-30		+80
Weight	g			TBD	

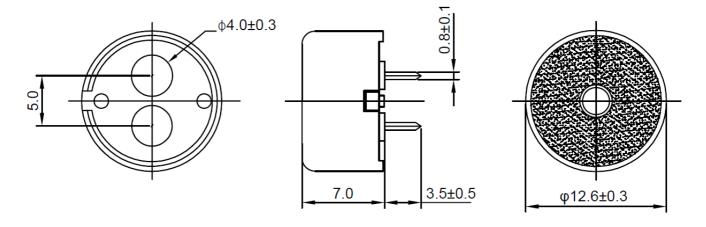
DESIGNED BY	Rabea Richter	DATE	2019.10.01	PART NO.	INDEX
RELEASED BY	Ralf Hinnerichs	DATE	2019.10.01		_
CHANGED BY		DATE		BPF 1306P A	A
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2. DRAWING



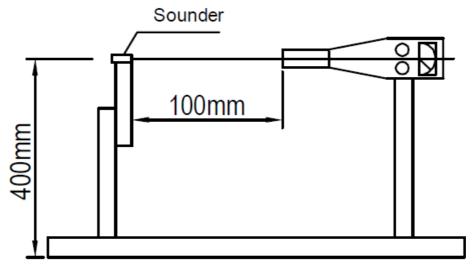
Tolerance ±0.3 Unit: mm

3. TEST METHOD

3.1 STANDARD TEST FIXTURE

Standard test condition: Temperature 25 ± 3 °C, Humidity 60 $\pm 10\%$ RH.

No reaction in space with in 400mm in all direction



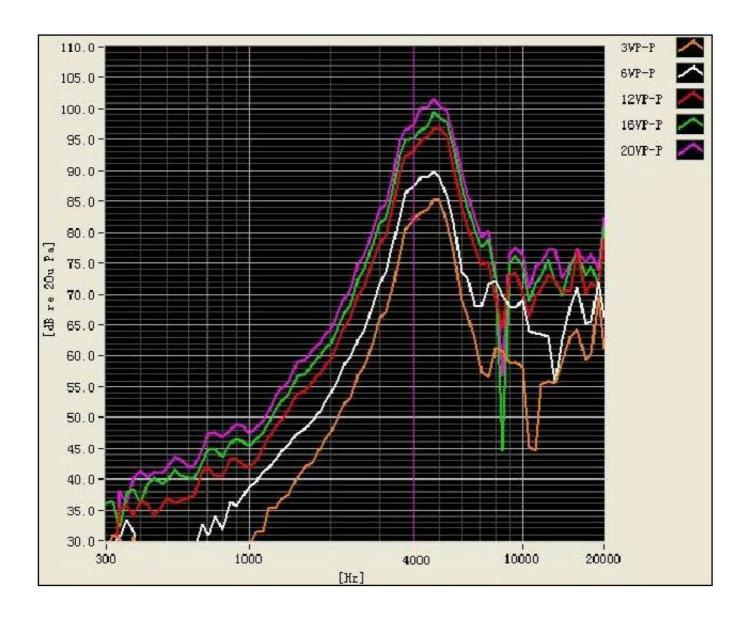
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3.2 FREQUENCY RESPONSE CURVE



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4. RELIABILITY TEST

4.1 High Temperature Test

Temperature $+80 \pm 2^{\circ}$ C Duration 240 hours

4.2 Low Temperature Test

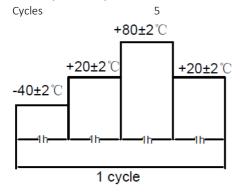
Temperature $-40 \pm 2^{\circ}\text{C}$ Duration 240 hours

4.3 Vibration Test

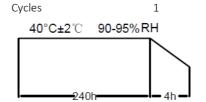
Vibration Frequency 10~55Hz Amplitude 1.5mm

Direction x, y, z each 2 hours

4.4 Temperature Cycle Test



4.5 Humidity Cycle Test



Expose to room temperature for 4 hours

4.6 Drop Test

Height 100cm (to 10mm thick hard wood or board)

Direction Front and side (two times each)

4.7 Solderability Test

Soldering Temperature 250°C Heat applying time 3 seconds

(Lead terminals are immersed in rosin for 5 seconds)

4.8 Terminal Strength Pulling

Pulling 9.8N
Duration 10 seconds

4.9 Soldering Heat

Temperature 260°C
Time 10 seconds

(Lead terminal are immersed up to 1.5mm from buzzer's body in solder) $\,$

95%min. Lead terminals shall be wet with solder.

(Except the edge of terminal)

Notice: At the end of each test, place it under normal temperature and test again after 4 hours. Inital value ± 10 dB, there may be no any degradation in appearance.

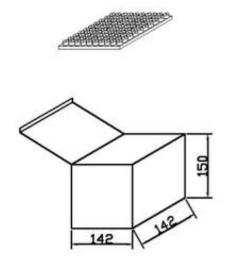
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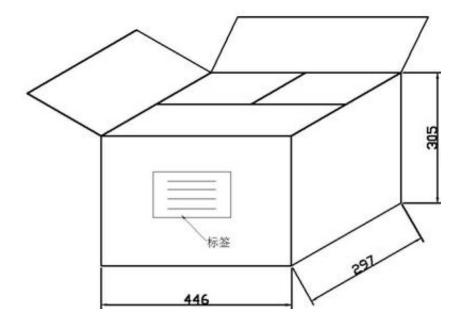


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5. PACKING





5.1 PACKING QUANTITY

1000 pcs per tray 12 trays per carton 12.000 pcs per carton in total Carton size 446x297x305mm

6. NOTICE

6.1 The products mustn't be washed

6.2 Storage Condition

The products should be stored in a room, where the temperature/humidity is stable. And avoid such places where there are large temperature changes. Please store the products at the following conditions:

Temperature: -10 to + 40 C Humidity: 15 to 85% R.H.

6.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after delivery under the conditions of a sealed and an unopened package. Please use the products within six months after delivery.

If you store the products for a long time (more than six months), use them carefully, because the products may be degraded in the solderability and/or rusty. Please confirm solderability and characteristics for the products regularly.

6.4 Notice on Product Storage

- (1) Please do not store the products in a chemical atmosphere (Acids, Alkali, Bases, Organic gas, Sulfides and so on), because the characteristics may be reduced in quality, and/or be degraded in the solderability due to the storage in a chemical atmosphere.
- (2) Please use the products immediately after the package is opened, because the characteristics may be reduced in quality, and/or be degraded in the solderability due to storage under the poor condition.
- (3) Please do not drop the products to avoid cracking of the ceramic element.

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7. HISTORY CHANGE RECORD

REV	CHANGE ITEMS					
	BEFORE CHANGE	AFTER CHANGE	DATE			

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