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# 请承认书

Version No.: <u>V2.1</u>

Changzhou HaoXiang Electronic Co., LTD 客户名称 CUSTOMER NAMER: 产品名称
CUSTOMER NAMER :
立 口 夕 松
COMMODITY : PIEZO BUZZER
产品型号
MODEL NO :TDA-13240PB
客户料号
PART NO :
审核 <b>秦皓</b> 主办 唐俐雅 May.23,201
客户承认栏
承 认 拒 收
常州  昊  翔  电  子  有  限  公  司
常州声翔电子有限公司
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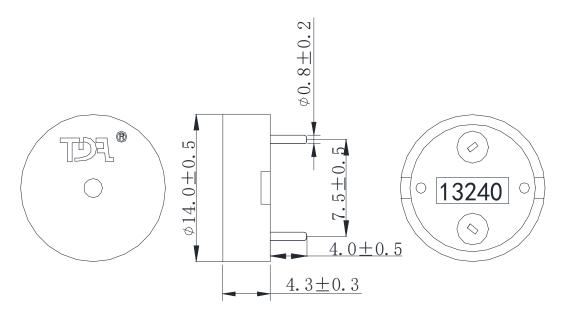
# A. SCOPE

This specification applies piezo buzzer, TDA-13240PB

# **B. SPECIFICATION**

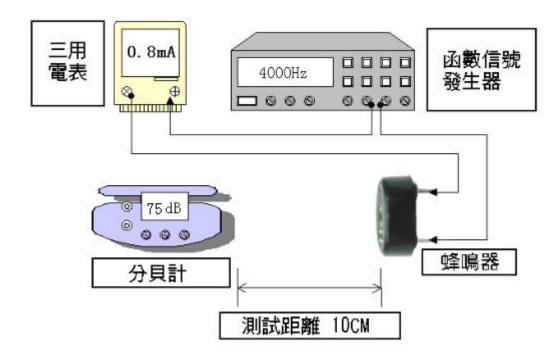
No.	Item	Unit	Specification	Condition	
1	Oscillation Frequency	Hz	4000	square wave	
2	Operating Voltage	Vp-p	30 max		
3	Current Consumption	mA	MAX. 2	at 5Vp-p	
4	Sound Pressure Level	dB	MIN. 75	at 10cm 5Vp-p 4000Hz	
5	Operating Temperature	$^{\circ}$	-40 ~ +85		
6	Storage Temperature	$^{\circ}\!\mathbb{C}$	-40 ~ +85		
7	Dimension	mm	ø14.0xH4.3	See appearance drawing	
8	Weight (MAX)	gram	0.72		
9	Housing Material		PBT		
10	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing	
11	Environmental Protection Regulation		RoHS		

# **C. APPEARANCE DRAWING**

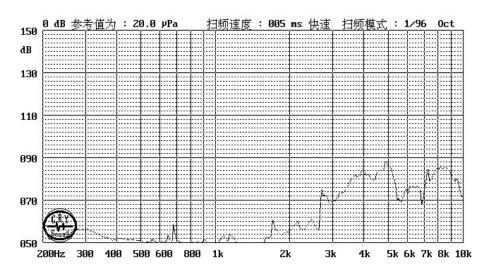


Unit:mm

## D. RECOMMEND DRIVING CIRCUIT



## **E.TYPICAL FREQUENCY RESPONSE CURVE**



## F.MECHANICAL CHARACTERISTICS

NO	Item	Test Condition	Evaluation standard	
1	Solderability	Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of 250±2℃ for less than 3seconds.	95%min stripped wires shall be wet with solder.(except the edge of terminal)	
2	Soldering Heat Resistance	Stripped wires are immersed up to 1.6mm from insulation in solder bath of 260±2°C for 10seconds.	No abnormity except terminal	
3	Dropping	Drop on a hard wood board of 4cm thick 2 times in 3 axes(X,Y,Z),(a total of 6 times) at the height of 75cm.	No abnormity except terminal	
4	Vibration	Buzzer shall be measured after being applied vibration of 1.52mm with 10 to 55Hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours.		

## **G. ENVIRONMENT TEST**

NO	Item	Test Condition	Evaluation standard	
1	High temp. test	High temp. test		
	riigir tomp. toot	7 inter borning practed in a creamber at the contraction	at 25℃,buzzer shall be	
2	Low temp. test	After being placed in a chamber at -40℃for 240 hours.	measured. The value of	
		After being placed in a chamber at -40 Clor 240 flours.	oscillation frequency and	
3	Humidity test	After being placed in a chamber at 60°C and 90-95%	current consumption	
		relative humidity for 240hours.	should be in ±10%	
			compared with initial	
4			one. The SPL should be	
			in ±10dB compared with	
			initial one.	

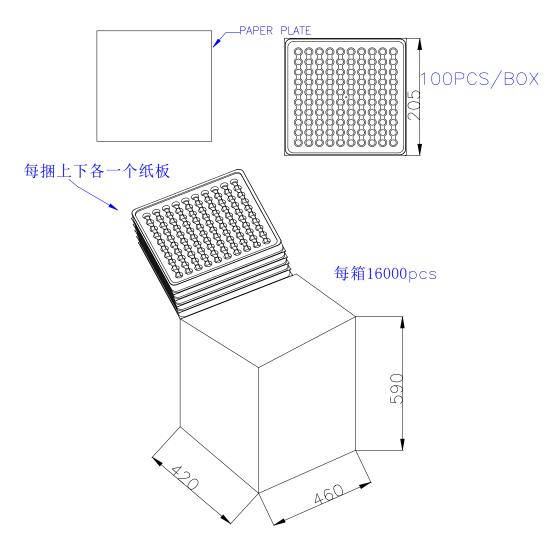
## H. RELIABILTY TEST

NO	Item	Test condition	Evaluation standard	
1	Operating life test	Supply 50% duty square-wave 20Vo-p 4.0KHz for 240 hours.	Being placed for 4 hours at 25°C, buzzer shall be measured. The value of oscillation frequency and current consumption should be in ±10% compared with initial one. The SPL should be in ±10dB compared with initial one.	

#### **TEST CONDITION**

**Standard Test Condition :** a) Temperature :  $+5 \sim +35 \,^{\circ}$ C b) Humidity : 45-85% c) Pressure : 860-1060mbar **Judgment Test Condition:** a) Temperature :  $+25\pm 2 \,^{\circ}$ C b) Humidity : 60-70% c) Pressure : 860-1060mbar

#### I.PACKING STANDARD



#### J. NOTE CAUTIONS

- **a.** Can not be applied DC bias voltage and a sounding body or pronunciation elements, otherwise its insulation resistance will decrease and the use of performance degradation.
- b. Can not be imposed over pronunciation body or pronunciation components allows the use of voltage range of the voltage on the.
- **C.** Please pay attention in welding process, don't let soldering flux invasion into the sound chamber , otherwise flux can cause defect conduction.
- **d**. Use should handle with care, avoiding direct pressure contact, or inadvertently falling down, to prevent the occurrence of fault, or the generation characteristics of abnormal movements.

#### **K.NOTICE ON PRODUCT STORAGE**

**a**. Please store the products in room where the temperature / humidity is stable. And avoid such places where there are large temperature changes. Please store the products under the following conditions :

Temperature : -10 to +40 (degree C)

Humidity: 15 to 85% R.H.

- **b**. Expire date (Shelf life) of the products is 6 months after delivery under the conditions of a sealed and an unopened package. Please use the products within 6 months after delivery. If you store the products for a long time (more than 6months), use carefully because the products may be degraded in the solder-ability and/or rusty. Please confirm solder-ability and characteristics for the products regularly.
- C. Please use the products immediately after the package is opened, because the characteristics may be reduced in quality, and/or be degraded in the solder-ability due to storage under the poor condition.

#### **L.REVISION**

No.	DATE	DESCRIPTION	REMARK	VERSION
1	Mar.25,2018	Initial condition	TDA-13240PB	V1.0
2	Jul.7,2018	Version upgrade	TDA-13240PB	V2.0
3	May.23,2019	Update product appearance drawing and frequency curve	TDA-13240PB	V2.1