

# 请承认书

Version No.: <u>V2.0</u>

常州	昊 翔	电	子	有限	2 公	司
Changzho	u HaoXi	iang	Elect	ronic	Co.,	LTD
客户名	3 称					
CUSTOME	R NAMER :					_
产品名	3 称					
COMMOD	ITY :		PIEZO	BUZZE	R	_
产品型	过号					
MODEL NO	0 :		TDA-2	24330	)	_
客户米	斗号					
PART NO	•					_
	· ·					
审核	秦皓		主	办	唐俐雅	Jul.28,2018
	客户		认认	栏		
承	认			拒	收	
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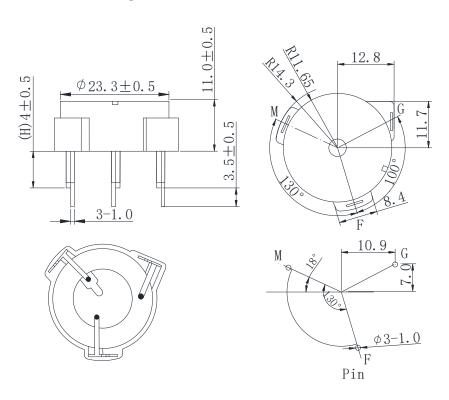
## A. SCOPE

This specification applies piezo buzzer, TDA-24330

## **B. SPECIFICATION**

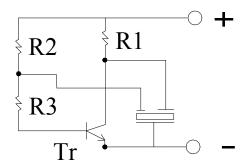
No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	3500±500	square wave
2	Operating Voltage	Vdc	3~25	
3	Rated Voltage	Vdc	12	
4	Current Consumption	mA	MAX. 15	at 12Vdc
5	Sound Pressure Level	dB	MIN. 85	at 30cm 12Vdc
6	Operating Temperature	$^{\circ}$	-20 ~ +70	
7	Storage Temperature	$^{\circ}$	-30 ~ +80	
8	Dimension	mm	23.3xH11	See appearance drawing
9	Weight (MAX)	gram	4	
10	Housing Material		PBT( Black )	
11	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
12	Environmental Protection Regulation		RoHS	

## **C. APPEARANCE DRAWING**



Unit:mm Tolerance :  $\pm$ 0.5mm

## D. RECOMMEND DIRVING CIRCUIT



R1:561

R2:154

R3:392

Tr:2SC2458Y

## **E. 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 270±5°C for 3±0.5 seconds.	90%min stripped wires shall be wet with solder.(except the edge of terminal)	
2	Soldering Heat Resistance	Stripped wires are immersed up to 1.5mm from insulation in solder bath of 300±5 $^{\circ}$ C for ±0.5 seconds or 260±5 $^{\circ}$ C for 10±1 seconds.	No interference in operation	
3	_	The force 10±1 seconds of 9.8N is applied to each terminal in axial direction	No damage and cutting off	
4	Vibration	Buzzer shall be measured after being applied vibration of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours.		

## F. ENVIRONMENT TEST

NO	Item	Test Condition	Evaluation standard	
1	High temp. test	After being placed in a chamber at80℃ for 96 hours		
2	Low temp. test	After being placed in a chamber at -30 ℃ for 96 hours		
0 11	Humidity toot	After being placed in a chamber at 40℃ and 85±5%	Being placed for 4 hours	
3	Humidity test	relative humidity for 96hours	at 25℃,buzzer shall be	
		The part shall be subjected to 5 cycles. One cycle shall be	measured. The value of	
	Temp. cycle test	consist of:	oscillation frequency	
		70℃	and current	
			consumption should be	
			in ±10% compared with	
4		<u>25°</u> C <u>25°</u> C	initial one. The SPL	
			should be in ±10dB	
		- <u>20℃</u> /	compared with initial	
		0.5 0.5H 0.25 0.5H 0.5H 0.5H 0.25	one.	
		→ 3hours →		

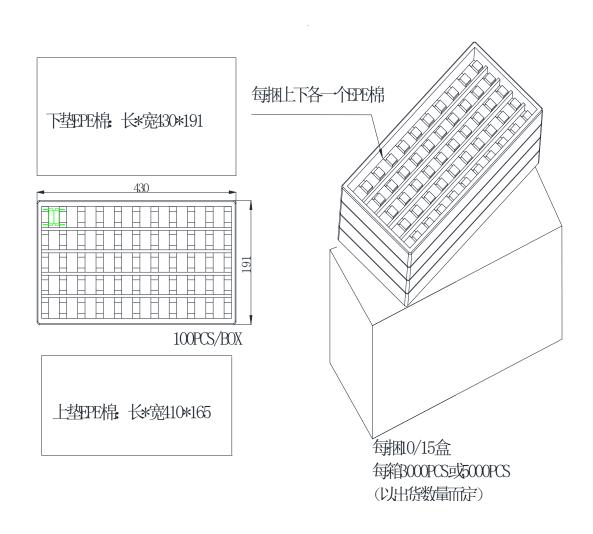
#### **G. RELIABILTY TEST**

NO	Item	Test condition	Evaluation standard	
1	Operating life test	<ol> <li>Continuous life test         96 hours continuous operation at 70°C with         maximum rated voltage applied.</li> <li>Intermittent life test         A duty cycle of 1 minute on, 5mintes off, a minimum         of 1000 times at room temp.( 25±2°C) and maximum         rated voltage applied</li> </ol>	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 :  $+25\pm2^{\circ}$ C b) Humidity : 60-70% c) Pressure : 860-1060mbar

#### H. PACKING STANDARD



#### I. 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.

#### J. 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.

#### K. REVISION

No.	DATE	DESCRIPTION	REMARK	VERSION
1	2015.04.23	Initial condition	TDA-24338	V1.0
2	2015.05.07	PIN length change from 12mm to 4mm	TDA-24330	V1.1
3	Jul.28,2018	Version upgrade	TDA-24330	V2.0