

# 请承认书

Version No: V1.1

常州昊翔电子有限公司  
Changzhou Haoxiang Electronic Co., LTD

客户名称

CUSTOMER NAMER : \_\_\_\_\_

产品名称

COMMODITY : BUZZER

产品型号

MODEL NO : TDA-20A38

客户料号

PART NO : \_\_\_\_\_

审核

徐青梅

主办

王严 17/06/01

## 客户承认栏

承认

拒收

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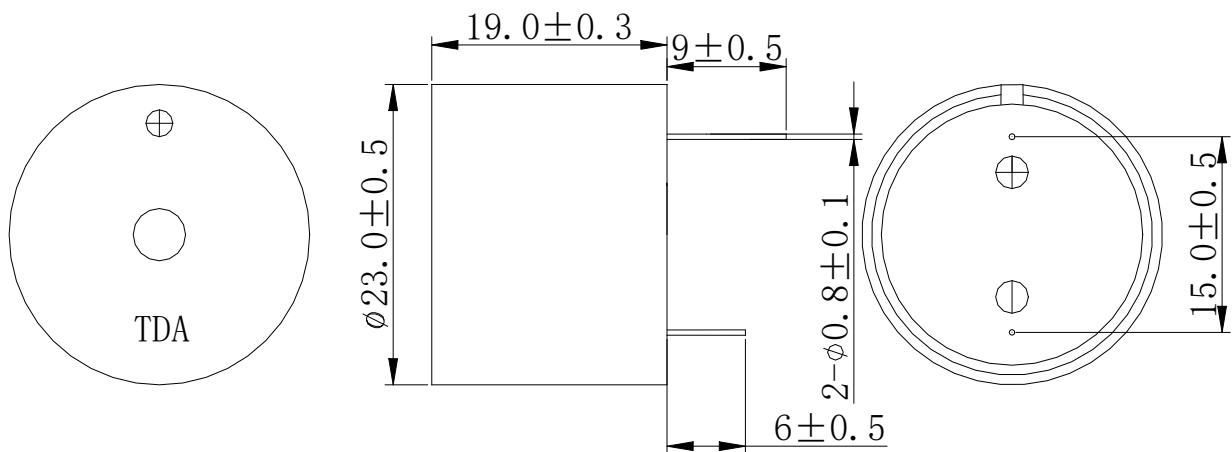
## A. SCOPE

This specification applies piezo buzzer, **TDA-20A38-12V**

## B. SPECIFICATION

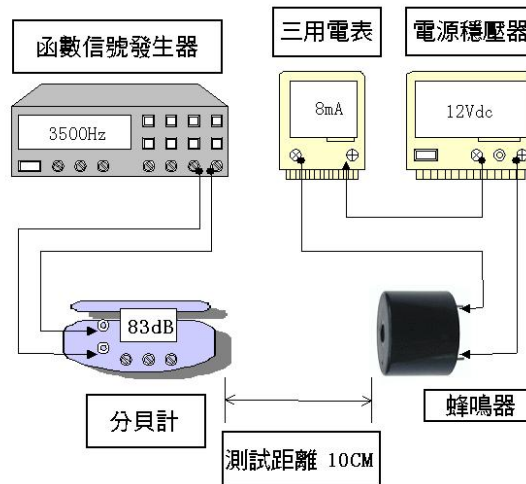
No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	3500 ± 500	square wave
2	Operating Voltage	Vdc	3~25	
3	Rated Voltage	Vdc	12	
4	Current Consumption	mA	MAX. 15	at 12Vdc
5	Sound Pressure Level	dB	MIN. 85	at 30cm 12Vdc
6	Coil Resistance	Ω		
7	Operating Temperature	°C	-30 ~ +70	
8	Storage Temperature	°C	-40 ~ +80	
9	Dimension	mm	23.0x19	See appearance drawing
10	Weight (MAX)	gram	5	
11	Housing Material		PPO( Black )	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

## C. APPEARANCE DRAWING



**Unit:mm**

## D. Recommend Driving Circuit



## 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 $270\pm 5^{\circ}\text{C}$ for $3\pm 0.5$ 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 $300\pm 5^{\circ}\text{C}$ for $\pm 0.5$ seconds or $260\pm 5^{\circ}\text{C}$ for $10\pm 1$ seconds.	No interference in operation
3	Terminal Strength Pulling	The force $10\pm 1$ 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.	The value of oscillation frequency and current consumption should be in $\pm 10\%$ comlared with initial ones. The SPL should be in $\pm 10\text{dB}$ compared with initial one.

## F. ENVIRONMENT TEST

NO	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $60^{\circ}\text{C}$ for 96 hours	Being placed for 4 hours at $25^{\circ}\text{C}$ ,buzzer shall be measured. The value of oscillation frequency and current consumption should be in $\pm 10\%$ compared with initial one. The SPL should be in $\pm 10\text{dB}$ compared with initial one.
2	Low temp. test	After being placed in a chamber at $-20^{\circ}\text{C}$ for 96 hours	
3	Humidity test	After being placed in a chamber at $40^{\circ}\text{C}$ and $85\pm 5\%$ relative humidity for 96hours	
4	Temp. cycle test	<p style="text-align: center;"><math>70^{\circ}\text{C}</math></p> <p style="text-align: center;">3hours</p>	

## G. RELIABILITY TEST

NO	Item	Test condition	Evaluation standard
1	Operating life test	<p>1. Continuous life test 96 hours continuous operation at 60°C with maximum rated voltage applied.</p> <p>2. Intermittent life tes 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</p>	<p>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.</p>

## H. PACKING STANDARD

