TDA®

请承认书

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 ： SMD PIEZO BUZZER

产 品 型 号

MODEL NO ： **TDA-M10220**

客 户 料 号

PART NO ：

审 核	秦皓	主 办	丁华 Jul.09,2020

客 户 承 认 栏	
承 认	拒 收

A. SCOPE

This specification applies piezo buzzer, **TDA-M10220**

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2000	square wave
2	Operating Voltage	Vp-p	25max	square wave
3	Current Consumption	mA	MAX. 3	at 5Vp-p ,2000Hz
4	Sound Pressure Level	dB	MIN. 70	at 10cm 5Vp-p 2000Hz
5	Operating Temperature	℃	-30 ~ +120	
6	Storage Temperature	℃	-40 ~ +120	
7	Dimension	mm	12x12x3	See appearance drawing
8	Weight (MAX)	gram	0.3	
9	Housing Material		LCP	
10	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
11	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING
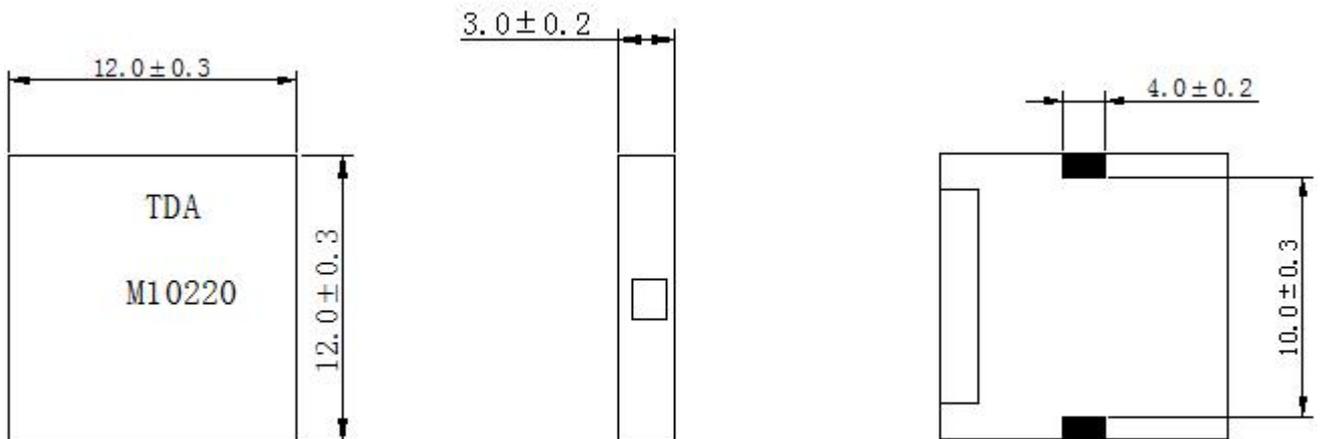
Unit:mm Tolerance : ±0.5mm

D. RECOMMEND DIRVING CIRCUIT

三用電表

0.8mA

4000Hz

函數信號發生器

78dB

分貝計

蜂鳴器

測試距離　10cm

E.FREQUENCY CURVE

4000 Hz 084.88 dB 5Up-p10cm

100 dB															

100Hz 200 300 400 500 600 800 1KHz 2K 3k 4K 5K 6K 7K 8K 10K
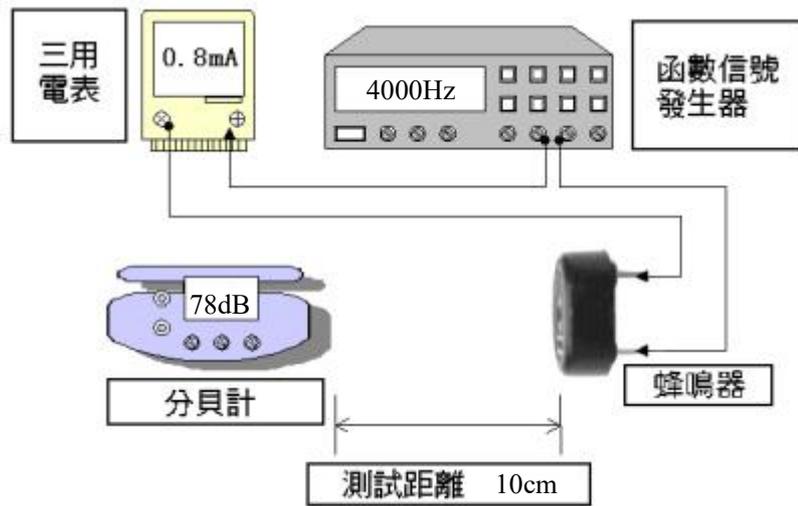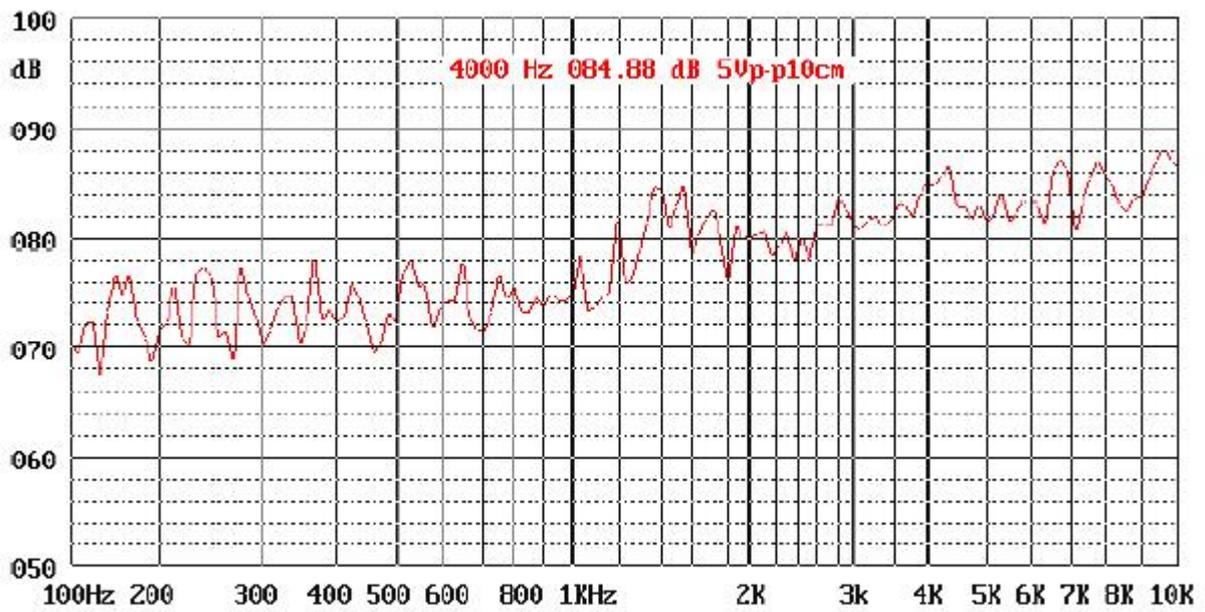
F.RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN
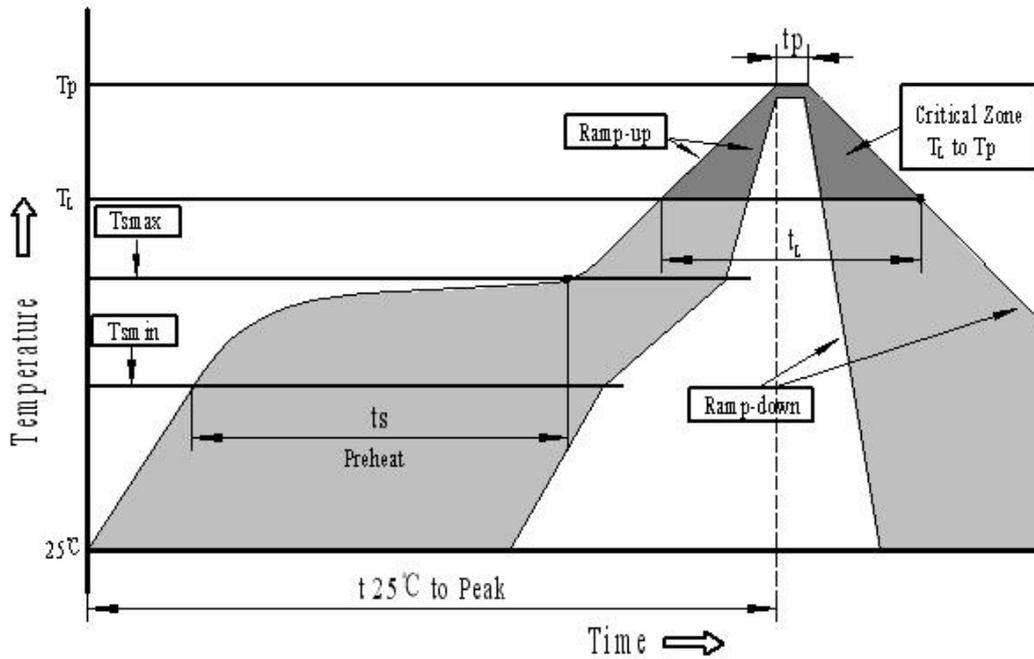
Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to Tp)	3℃/second max.
Preheat	
-Temperature Min.(Ts_{min})	150℃
-Temperature Min.(Ts_{max})	200℃
-Temperature Min.(ts)	60～180 seconds
Ts_{max} to T_L	
-Ramp-up Rate	3℃/second max.
Time maintained above:	
- Temperature(T_L)	217℃
-Time(T_L)	60～150 seconds
Peak temperature(Tp)	245℃+0/-5℃
Time within 5℃ of actual Peak temperature (tp)	6 seconds max.
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

G. RELIABLY TEST

| NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage life	The part shall be capable of withstanding a storage temperature is +120℃ for 96 hours	Being placed for 4 hours at 25℃,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.
2	Low temp. storage life	The part shall be capable of withstanding a storage temperature is -40℃ for 96hours	
3	Temp. Cycle	The part shall be subjected to 5 cycles. One cycle shall be consist of： 120℃ 20℃ 20℃ -30℃ 0.5 0.5H 0.25 0.5H 0.5H 0.5H 0.25 3hours	
4	Humidity Test	40±2℃, 90～95% RH, 96hours	
5	Vibration Test	The part shall be subjected to a vibration cycle is 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3g). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.	The value of oscillation frequency and current consumption should be in±10%compared with initial ones. The SPL should be in ±10dB compared with initial one.
6	Shock	Sounder shall be measured after being applied shock (980m/s²) for each three mutually perpendicular directions to each of 3 times by half sine wave.	
7	Drop Test	Dropped naturally from 700mm height onto the surface of 10mm thick wooden board. 2 directions-upper and side of the part are to be applied.	
8	Lead pull	The part shall be pushed with a force of 9.8N for 10±1 seconds behind the part.	After the test part shall meet specifications without any degradation in appearance and performance.
9	Recommended temp. Profile for Reflow Oven	Shown in Fig.1	
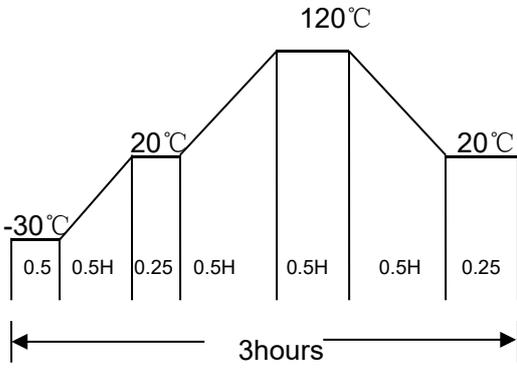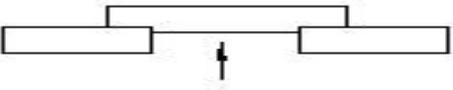
**Warranty**:For a period of one year from date of manufacture under normal operations.

TEST CONDITION
Standard Test Condition : a) Temperature : +5 ~ +35℃   b) Humidity : 45-85% c) Pressure : 860-1060mbar
Judgment Test Condition: a) Temperature : +25±2℃   b) Humidity : 60-70% c) Pressure : 860-1060mbar

H.   PACKING STANDARD

H-1. PACKING:

A

1 : 1

φ13.0±0.5

Tapping Direction

A

1 : 8

max.30.0

24.5±0.5

φ330

φ100±0.5

sound emission hole

NO Components

Components

NO Components

TOP
Cover Tape

150mm(10PCS)min

400mm(26PCS)min

Empty component
Pockets sealed
With cover tape

Start

User Direction of Feed
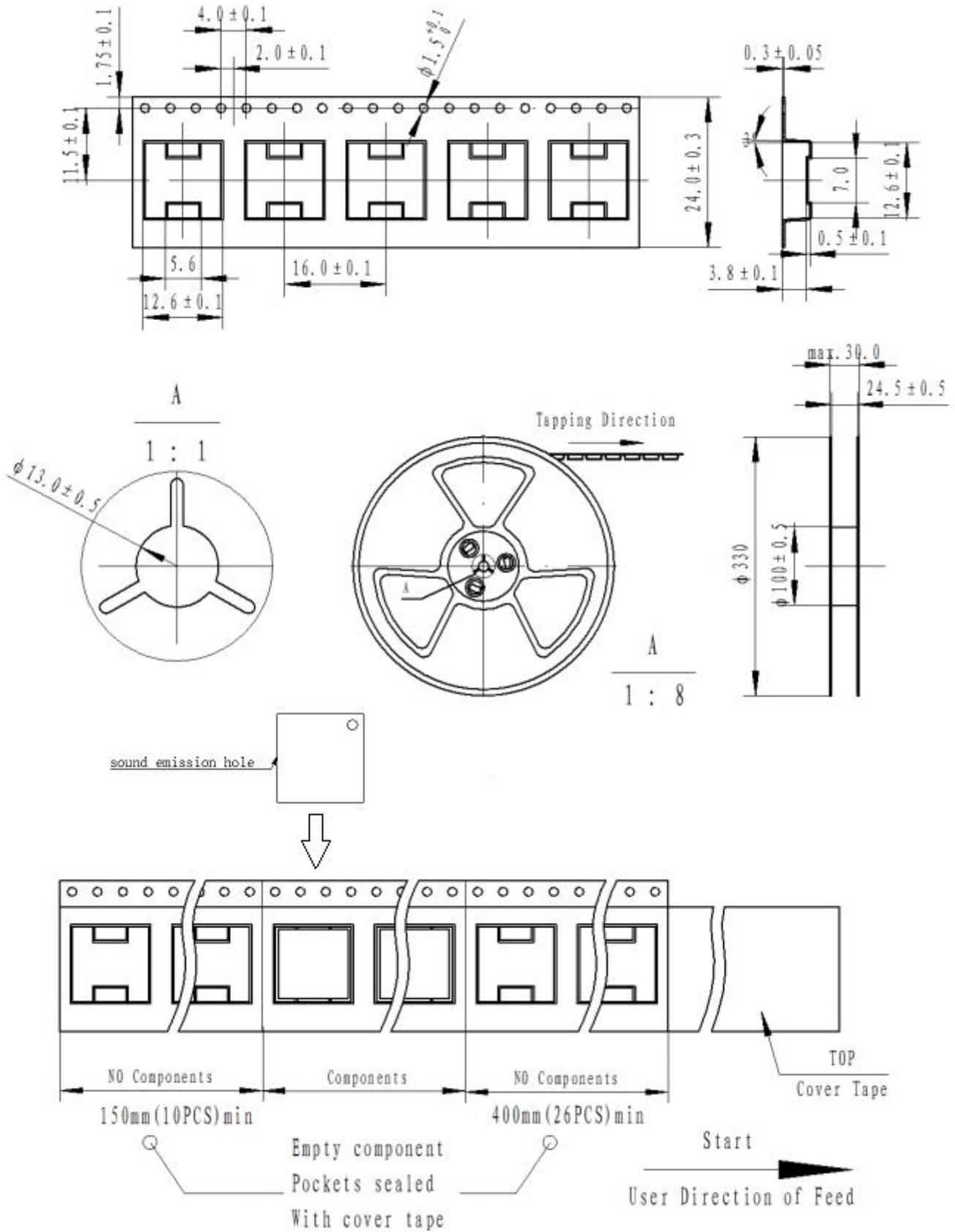
H-2. VACUUM PACKING:
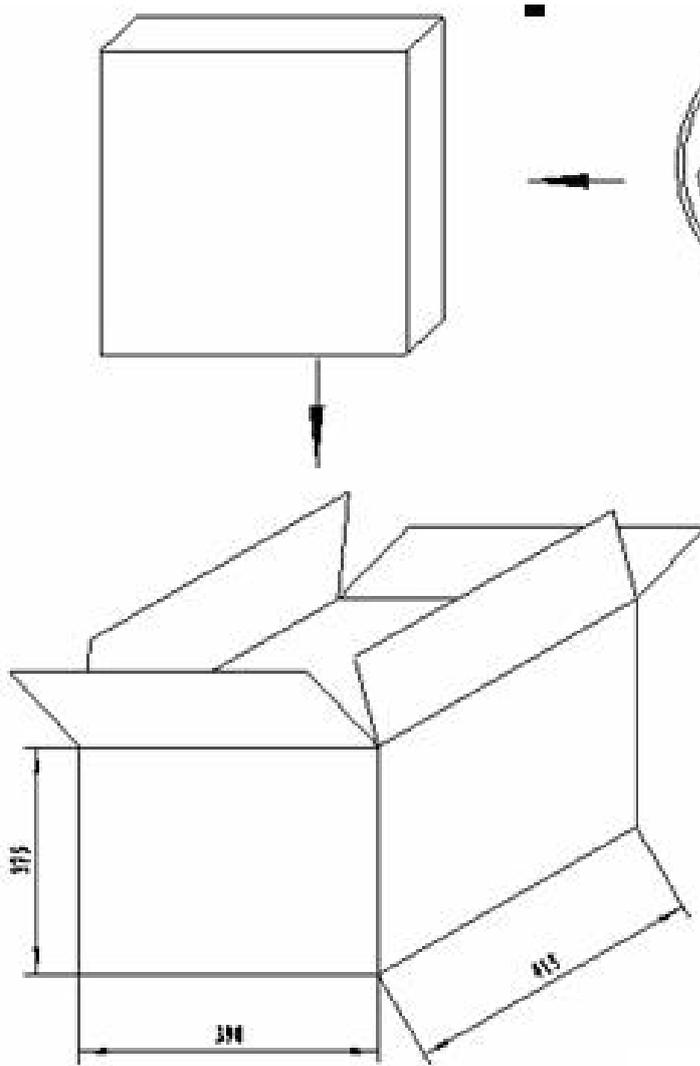
NOTES:
1. 1000PCS per tray
2. Total 10 tray per carton
3. Total 10000pcs per carton
4. Volume:41.5*39*37.5cm

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	Jun.25,2019	Initial condition	TDA-M10220	V2.0
2	Jul.23,2019	Update product specification	TDA-M10220	V2.1
3	Jul.09,2020	Version update	TDA-M10220	V2.2