



请承认书

Version No.: V2.0

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

客户名称

**CUSTOMER NAMED :** \_\_\_\_\_

产品名称

**COMMODITY :** SMD MAGNETIC BUZZER

产品型号

**MODEL NO :** TDA-M14011-0527

客户料号

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

审核	秦皓	主办	唐俐雅 Jan.7,2019
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客户承认栏			
承认	拒收		

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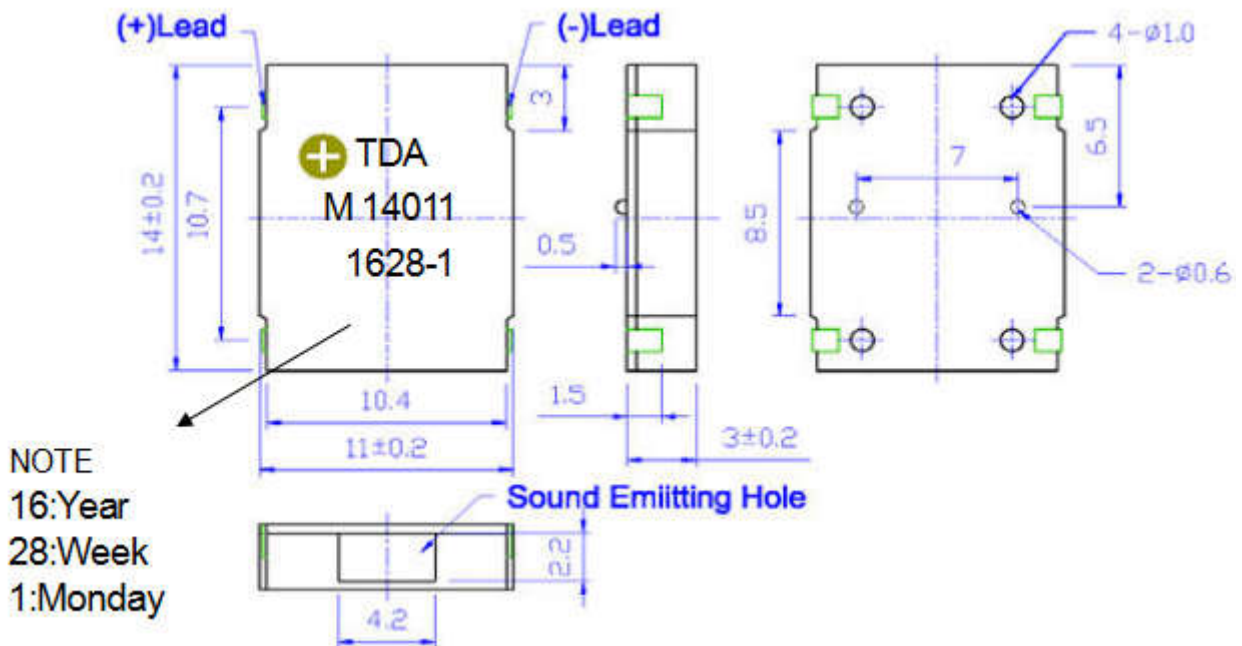
## A. SCOPE

This specification applies magnetic buzzer, **TDA-M14011-0527**

## B. SPECIFICATION

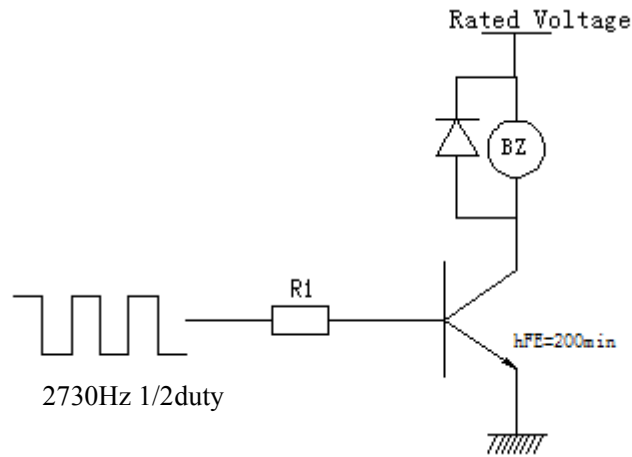
No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2730	Square Wave
2	Operating Voltage	Vo-p	3.0 ~ 7.0	
3	Rated Voltage	Vo-p	5.0	
4	Current Consumption	mA	MAX. 80	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 90	at 10cm at Rated Voltage
6	Coil Resistance	$\Omega$	$43 \pm 3$	
7	Operating Temperature	$^{\circ}\text{C}$	-30 ~ +75	
8	Storage Temperature	$^{\circ}\text{C}$	-40 ~ +85	
9	Dimension	mm	14x11x H3.0	See appearance drawing
10	Weight (MAX)	gram	2	
11	Housing Material		LCP( Black )	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

## C. APPEARANCE DRAWING

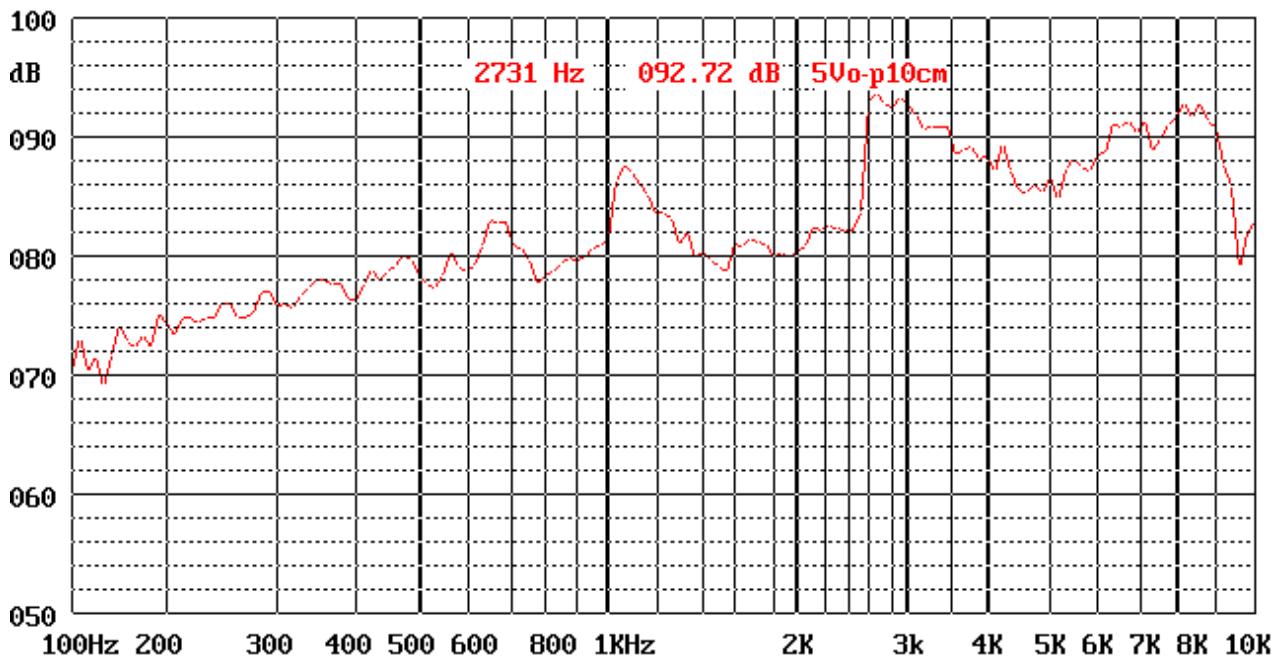


Unit:mm Tolerance : ±0.5mm

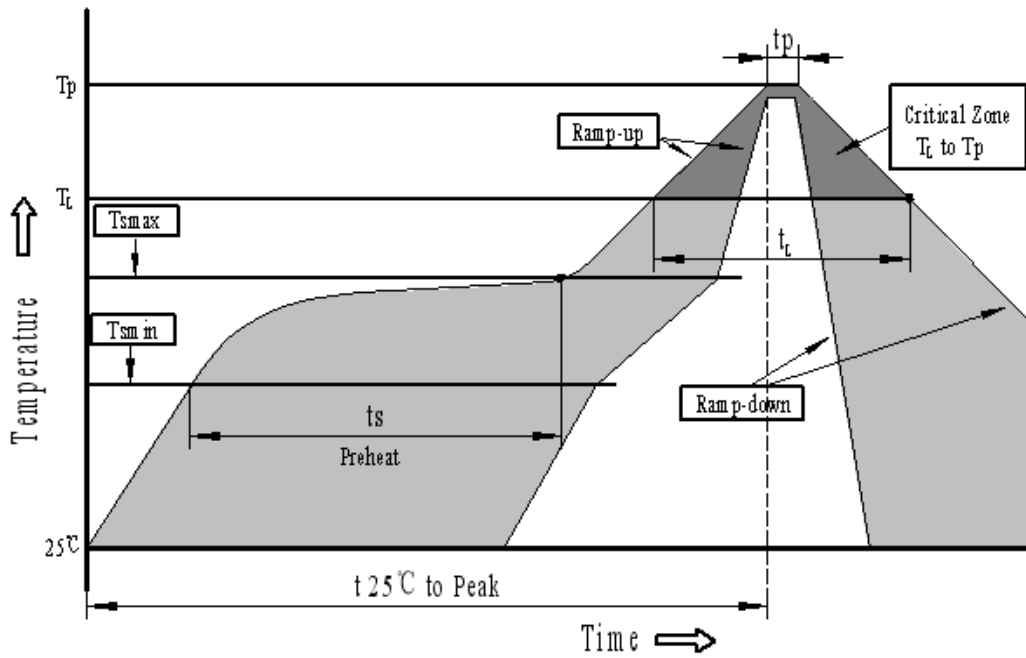
## D. RECOMMEND DRIVING CIRCUIT



## E. FREQUENCY CURVE

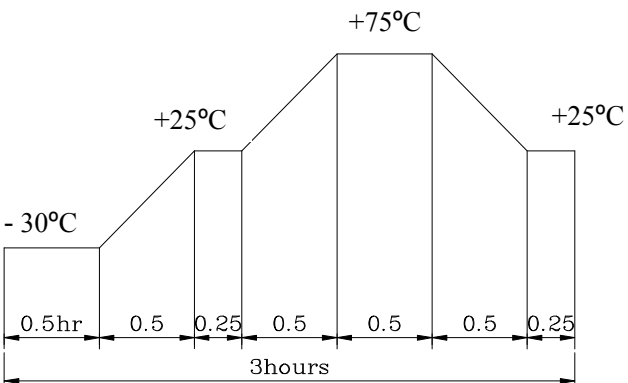


## F.RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN



Profile Feature	Pb-Free Assembly
Average ramp-up rate( $T_L$ to $T_p$ )	3°C/second max.
Preheat	
-Temperature Min.( $T_{smin}$ )	150°C
-Temperature Min.( $T_{smax}$ )	200°C
-Temperature Min.( $t_s$ )	60~180 seconds
$T_{smax}$ to $T_L$	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature( $T_L$ )	217°C
-Time( $T_L$ )	60~150 seconds
Peak temperature( $T_p$ )	245°C+0/-5°C
Time within 5°C of actual Peak temperature ( $t_p$ )	6 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

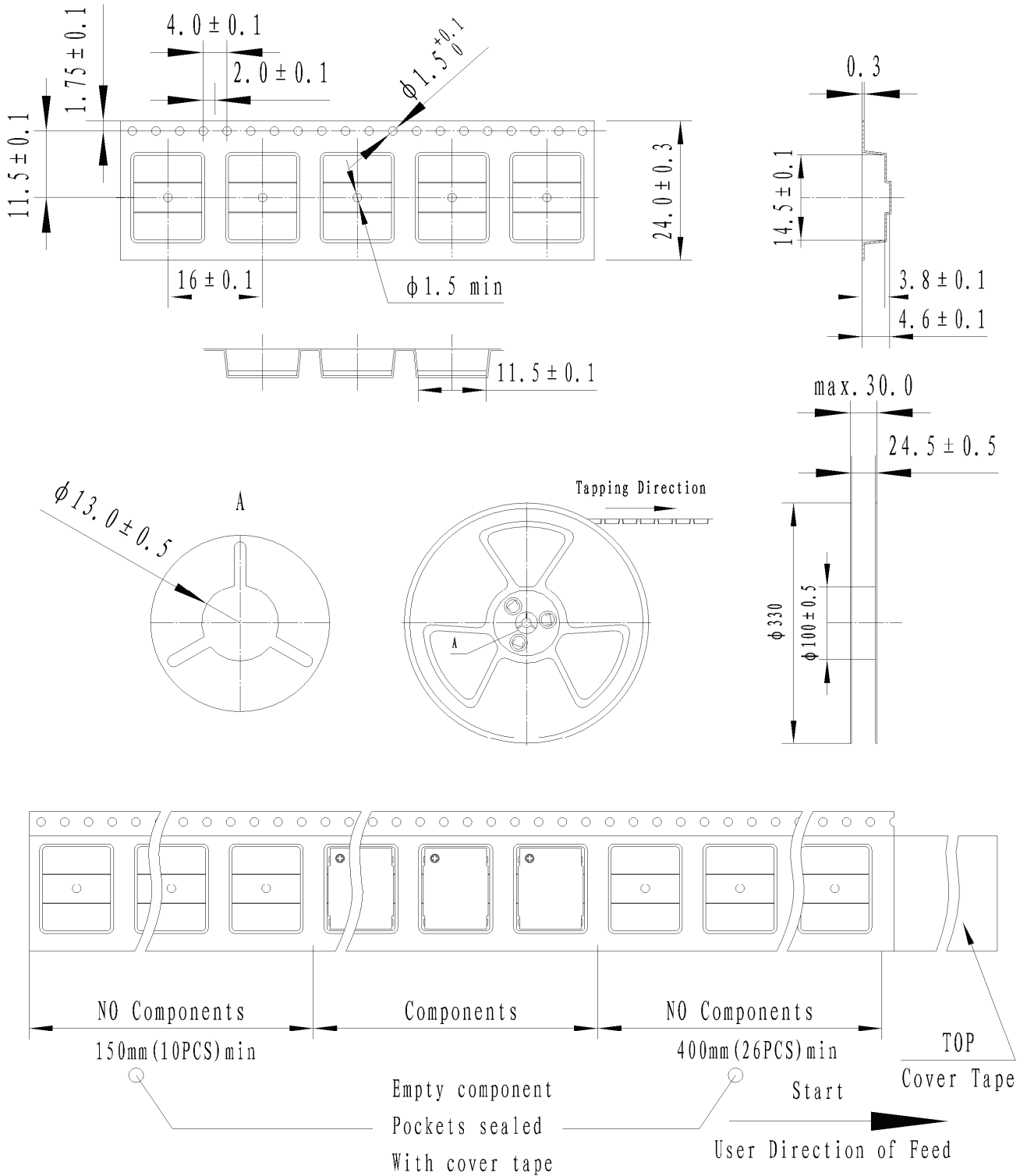
## G. RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with $85 \pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
2	Low Temperature Test (Storage)	After being Placed in a chamber with $-40 \pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at $40 \pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
4	Temperature Cycle Test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of:</p>  <p>The diagram shows a temperature cycle profile over a 3-hour period. It starts at <math>-30^{\circ}\text{C}</math> for 0.5 hours, then ramps up to <math>+25^{\circ}\text{C}</math> in 0.5 hours, holds at <math>+25^{\circ}\text{C}</math> for 0.25 hours, ramps up to <math>+75^{\circ}\text{C}</math> in 0.5 hours, holds at <math>+75^{\circ}\text{C}</math> for 0.5 hours, ramps down to <math>+25^{\circ}\text{C}</math> in 0.5 hours, holds at <math>+25^{\circ}\text{C}</math> for 0.25 hours, and finally ramps down to <math>-30^{\circ}\text{C}</math> in 0.5 hours. The total duration is 3 hours.</p> <p>Allowable variation of SPL after test: 10dB.</p>
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm . Allowable variation of SPL after test: 10dB.
6	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours . Allowable variation of SPL after test: 10dB.
7	Solderability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+245 \pm 5^{\circ}\text{C}$ for 3 1 seconds . 90% min. lead terminals shall be wet with solder (Except the edge of terminals).
8	Terminal Strength Pulling Test	The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

### TEST CONDITION

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

## H. PACKING STANDARD



## I. NOTE CAUTIONS

- Please pay attention in welding process, don't let soldering flux invasion into the sound chamber , otherwise flux can cause defect conduction .
- 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.
- This product is not dustproof, not waterproof, not resistance to dropping.

