



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-M90045-0527

客户料号

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

审核	秦皓	主办	丁华 Sept.13,2018
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客户承认栏			
承认		拒收	

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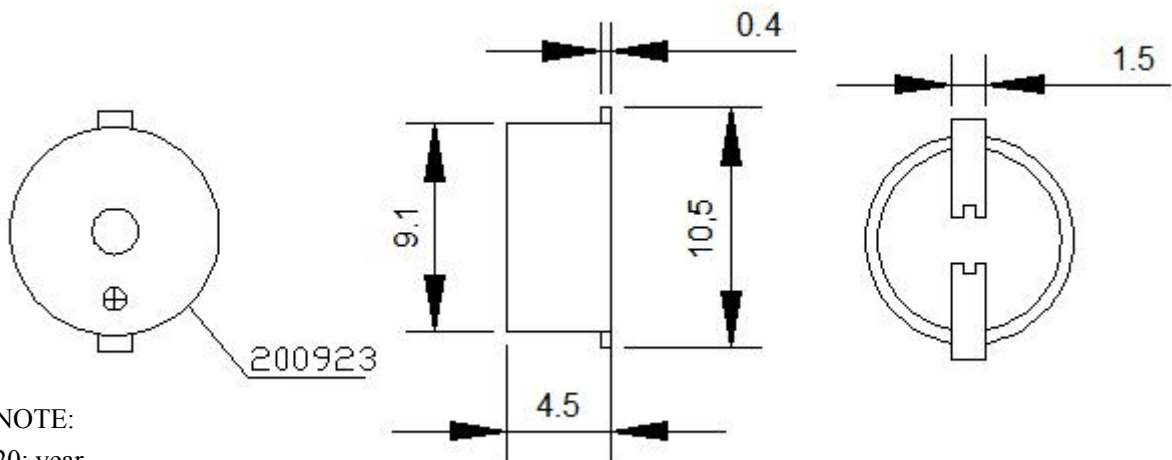
## A. SCOPE

This specification applies magnetic buzzer, **TDA-M90045-0527**

## B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2700	Square Wave
2	Operating Voltage	Vo-p	4~7	
3	Rated Voltage	Vo-p	5	
4	Current Consumption	mA	MAX. 100	at 5Vo-p, 2700Hz, 1/2 duty
5	Sound Pressure Level	dB	MIN. 88	at 10cm at 5Vo-p, 2700Hz, 1/2 duty
6	Coil Resistance	$\Omega$	25 $\pm$ 3	
7	Operating Temperature	$^{\circ}$ C	-20+85	
8	Storage Temperature	$^{\circ}$ C	-30+90	
9	Dimension	mm	$\Phi$ 9.1x H4.5	See appearance drawing
10	Weight (MAX)	gram	0.8	
11	Housing Material		LCP	
12	Leading Pin		Tin Plated Brass (Au)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

## C. APPEARANCE DRAWING



NOTE:

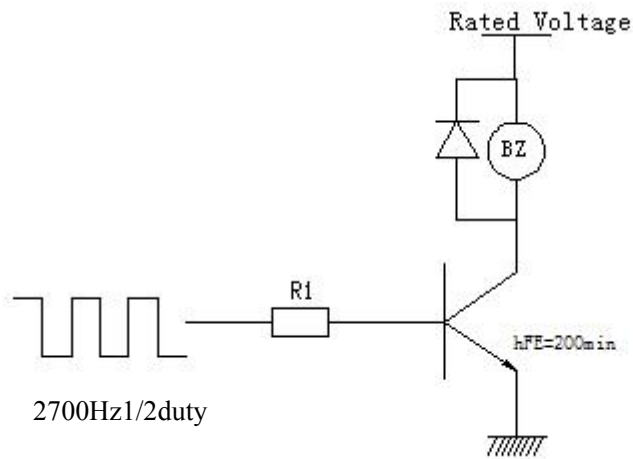
20: year

09: month

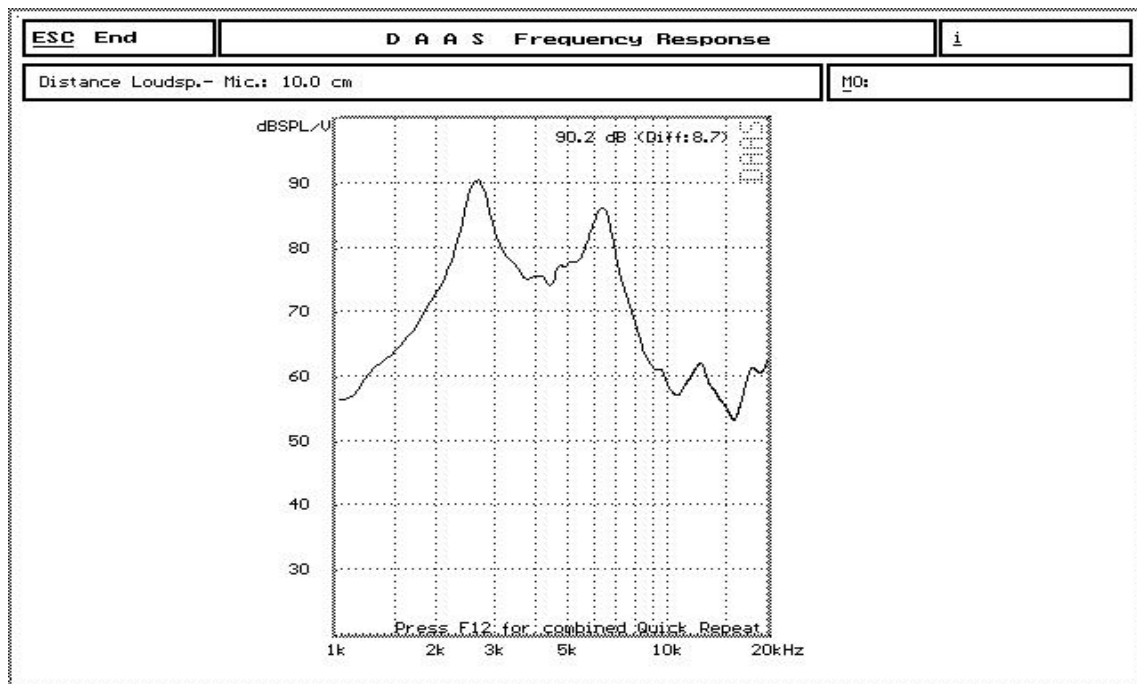
23: day

**Unit:  $\pm 0.05$ mm**

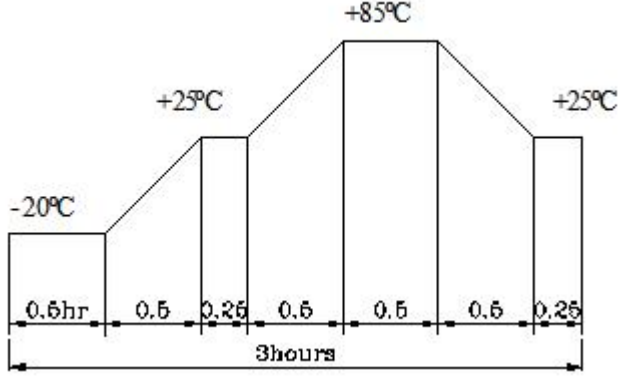
## D. RECOMMEND DRIVING CIRCUIT



## E. FREQUENCY CURVE



## F.RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with +90°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 -30°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 ± 2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 10dB.
4	Temp./Humidity Cycle test	<p>The part shall be subjected to 5 cycle. One cycle shall be consist of:</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 10Hz to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours ,total 6 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 +300 ± 5° C for 3 ± 1 seconds . 90% min. lead terminals shall be wet with solder(Except the edge of terminals).
8	Soldering Heat Resistance	The product is followed the reflow temperature curve to test its reflow soldering heat resistance.
9	Terminal Strength Pulling Test	Lead pads shall be soldered on the pc board,the force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

## G.RELIABILITY TEST

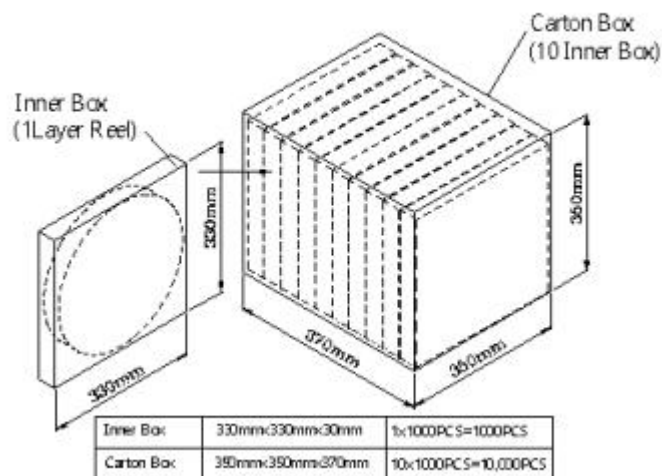
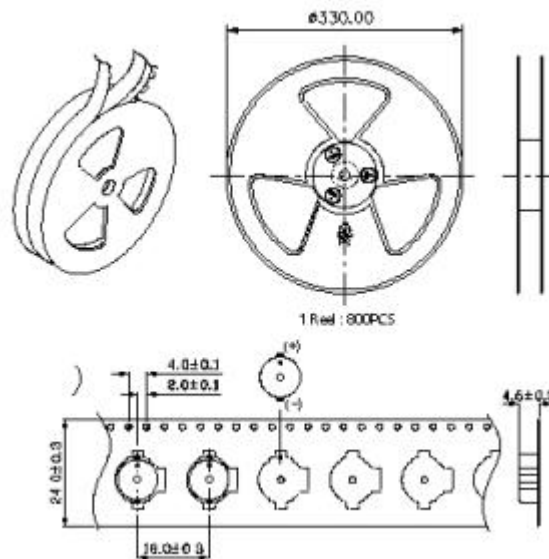
No.	Item	Test condition	Evaluation standard
1	Operating life test	<p>1. Ordinary temperature The part shall be subjected to 96 hours at room temperature with 5V,2700Hz applied.</p> <p>2. High temperature The part shall be subjected to 72 hours at +85 °C with 5V,2700Hz applied.</p> <p>3. Low temperature The part shall be subjected to 72 hours at -20 °C with 5V,2700Hz applied.</p>	After the test the part shall meet specifications without any degradation in appearance and performance except SPL. after 4 hours at +25 °C, The SPL should be in $\pm 10$ dBA compared with initial one.

### TEST CONDITION

**Standard Test Condition :** a) Temperature : +5 ~ +35°C b) Humidity : 45-85% c) Pressure : 860-1060mbar

**Judgment Test Condition:** a) Temperature : +25 $\pm$ 2°C b) Humidity : 60-70% c) Pressure : 860-1060mbar

## H. PACKING STANDARD



## I.NOTE CAUTIONS

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

## 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	Sept,13.2018	Initial condition	TDA-M90045-0527	V2.0