



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 : <u>SMD MAGNETIC BUZZER</u>			
产品型号			
MODEL NO : <u>TDA-M90032-0327</u>			
客户料号			
PART NO : _____			
审核	秦皓	主办	唐俐雅 Aug.8,2018

客户承认栏			
承认		拒收	

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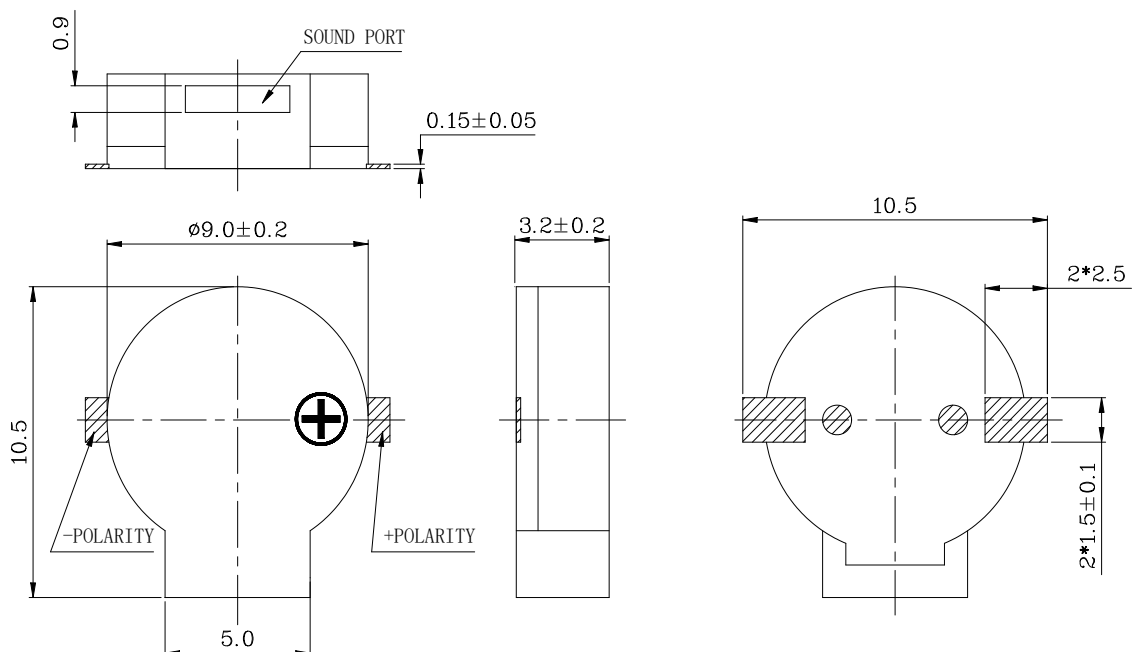
A. SCOPE

This specification applies magnetic buzzer, **TDA-M90032-0327**

B. SPECIFICATION

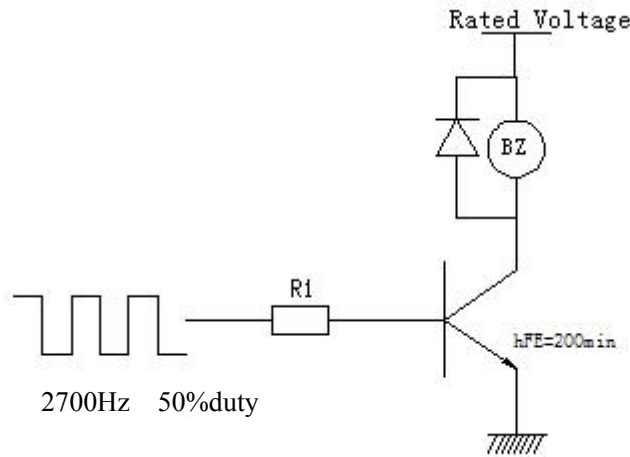
No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2730	Square Wave
2	Operating Voltage	Vdc	2.5~4.5	
3	Rated Voltage	Vdc	3.6	
4	Current Consumption	mA	MAX.100	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 85	at 10cm at Rated Voltage
6	Coil Resistance	Ω	16 \pm 3	
7	Operating Temperature	$^{\circ}\text{C}$	-30 ~ +70	
8	Storage Temperature	$^{\circ}\text{C}$	-40 ~ +85	
9	Dimension	mm	$\Phi 9.0 \times H3.2$	See appearance drawing
10	Weight (MAX)	gram	0.8	
11	Housing Material		LCP(Black)	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING

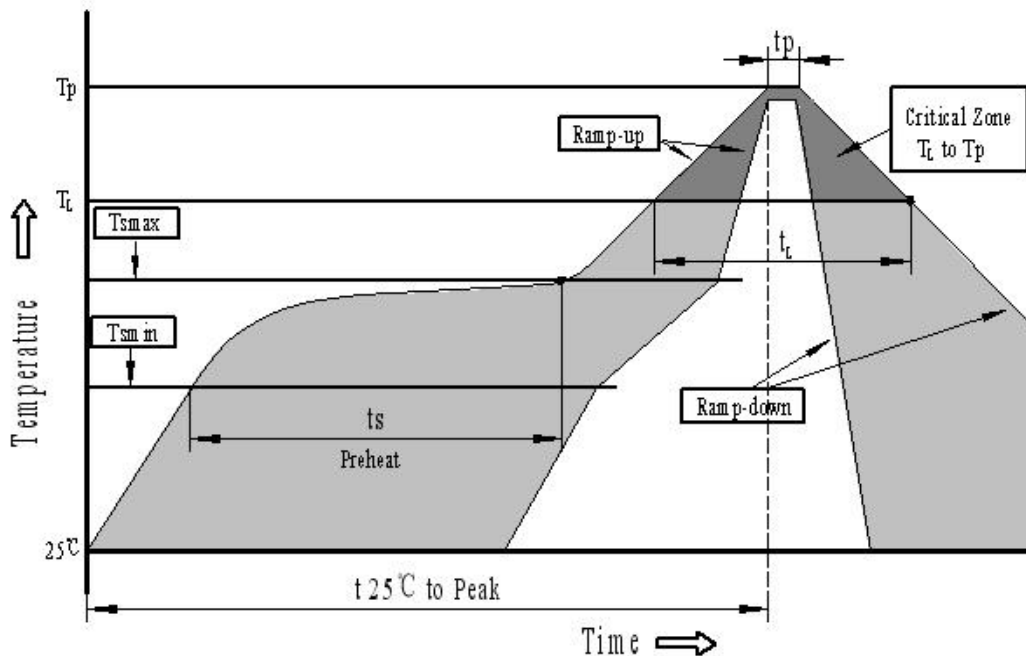


Unit:mm Tolerance : $\pm 0.5\text{mm}$

D. RECOMMEND DRIVING CIRCUIT

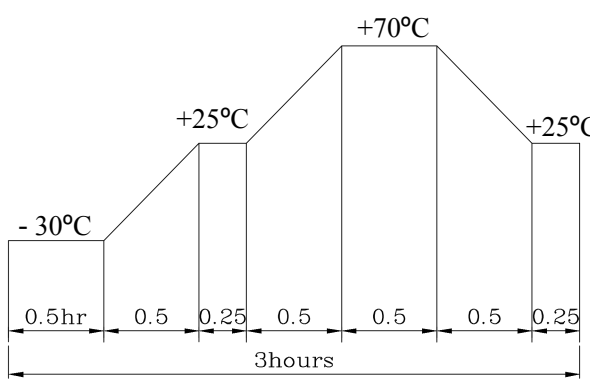


E. RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN



Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to T_p)	3°C/second max.
Preheat	
-Temperature Min.($T_{sm\ in}$)	150°C
-Temperature Min.($T_{sm\ ax}$)	200°C
-Temperature Min.(t_s)	60~180 seconds
$T_{sm\ ax}$ 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.

F.RELIABILITY TEST

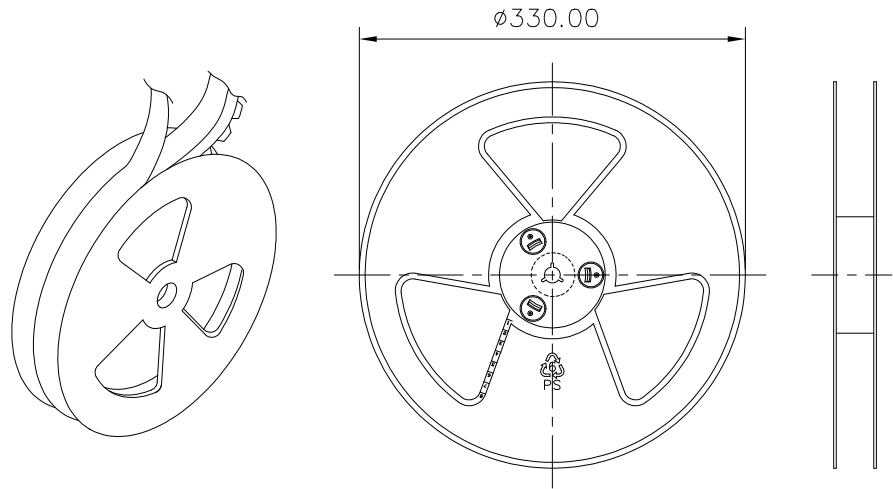
NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with $85\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
2	Low Temperature Test (Storage)	After 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: $\pm 10\text{dB}$.
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: $\pm 10\text{dB}$.
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 -30°C for 0.5 hours, then ramps up to $+25^{\circ}\text{C}$ in 0.5 hours, holds at $+25^{\circ}\text{C}$ for 0.25 hours, ramps up to $+70^{\circ}\text{C}$ in 0.5 hours, holds at $+70^{\circ}\text{C}$ for 0.5 hours, ramps down to $+25^{\circ}\text{C}$ in 0.5 hours, holds at $+25^{\circ}\text{C}$ for 0.25 hours, and finally ramps down to -30°C in 0.5 hours. The total duration of one cycle is 3 hours.</p> <p>Allowable variation of SPL after test: $\pm 10\text{dB}$.</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: $\pm 10\text{dB}$.
6	Vibration Test	After being applied vibration of amplitude of 1.5mmwith 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours . Allowable variation of SPL after test: $\pm 10\text{dB}$.
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 ± 0.5 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

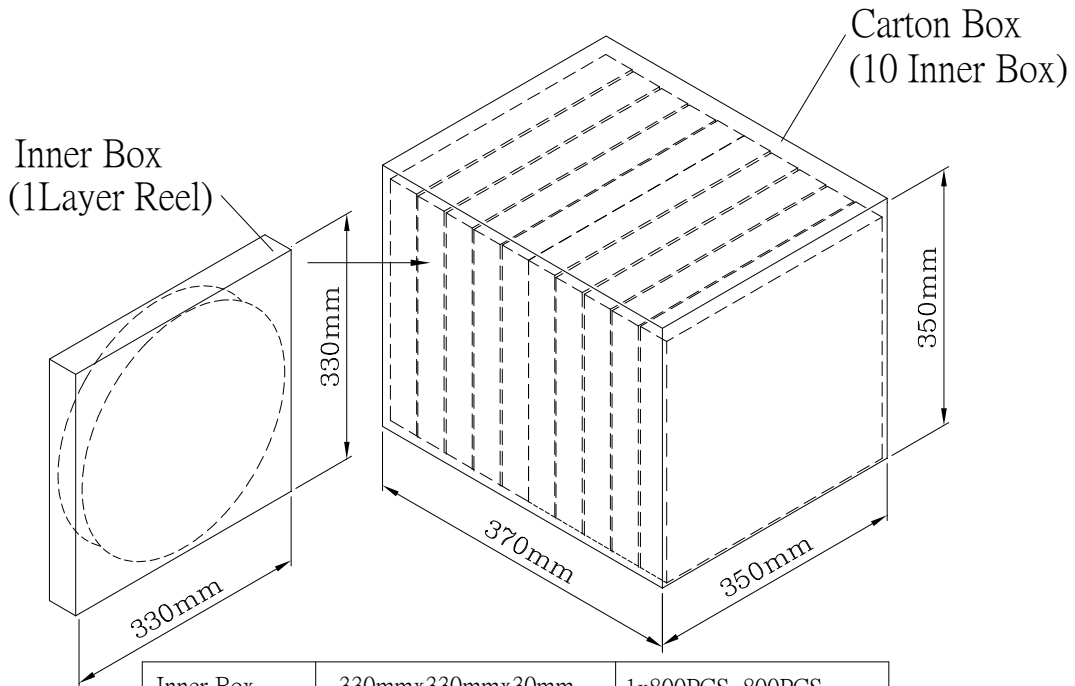
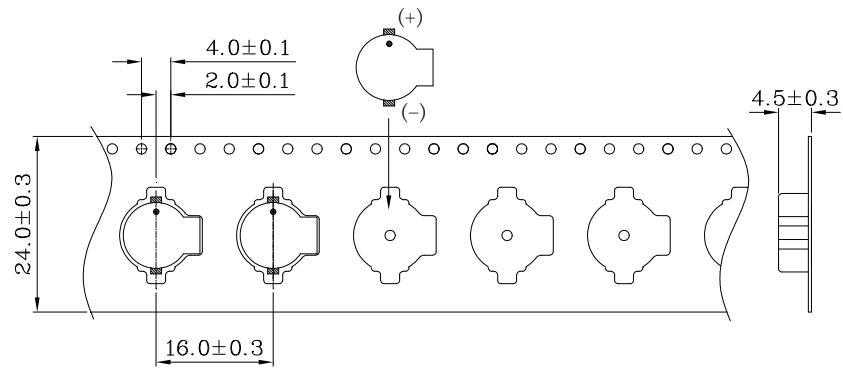
Standard Test Condition : a) Temperature : $+5 \sim +35^{\circ}\text{C}$ b) Humidity : 45-85% c) Pressure : 860-1060mbar

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

G. PACKING STANDARD



1 Reel : 800PCS



Inner Box	330mmx330mmx30mm	1x800PCS=800PCS
Carton Box	350mmx350mmx370mm	10x800PCS=8,000PCS

H.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.

I. 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.

J.REVISION

No.	DATE	DESCRIPTION	REMARK	VERSION
1	2014.09.11	Initial condition	TDA-M90032	V1.0
2	2014.09.15	Increased reliability test	TDA-M90032	V1.1
3.	2015.01.16	Current Consumption change from 80mA to 100mA;PIN length change from 2.2mm to 2.5mm	TDA-M90032	V1.2
4	Aug.8,2018	Version upgrade	TDA-M90032-0327	V2.0