SPECIFICATION

Version No.： V2.1

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 ：SMD MAGNETIC BUZZER

产 品 型 号

MODEL NO ： TDA-M90040-0327

客 户 料 号

PART NO ：_____

审 核	秦皓	主 办	潘莲 Nov.05,2019

客 户 承 认 栏			
承 认		拒 收	

常 州 昊 翔 电 子 有 限 公 司

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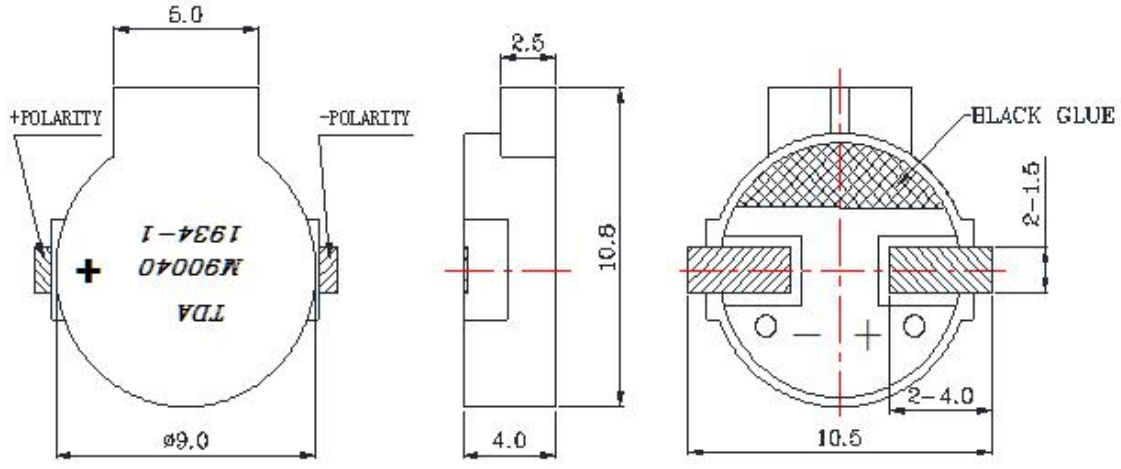
A. SCOPE

This specification applies magnetic buzzer, **TDA-M90040-0327**

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2730	Square Wave
2	Operating Voltage	Vo-p	2.5~4.5	
3	Rated Voltage	Vo-p	3.6	
4	Current Consumption	mA	MAX. 100	at 3.6Vo-p, 2730Hz, 1/2 duty
5	Sound Pressure Level	dB	MIN. 85	at 10cm at 3.6Vo-p, 2730Hz,1/2 duty
6	Coil Resistance	Ω	16±3	
7	Operating Temperature	℃	-30-+70	
8	Storage Temperature	℃	-40-+80	
9	Dimension	mm	Φ9.0x H4.0	See appearance drawing
10	Weight (MAX)	gram	0.8	
11	Housing Material		PPS(Black)	
12	Leading Pin		Tin Plated Au	See appearance drawing
13	Environmental Protection Regulation		RoHS	

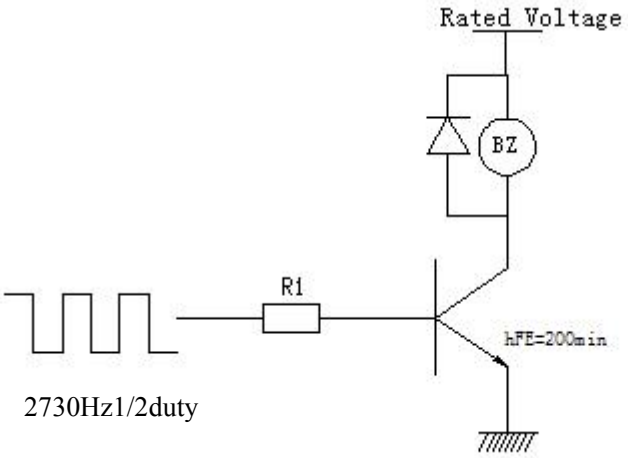
C. APPEARANCE DRAWING



NOTE:
19: year
34:week
1：day

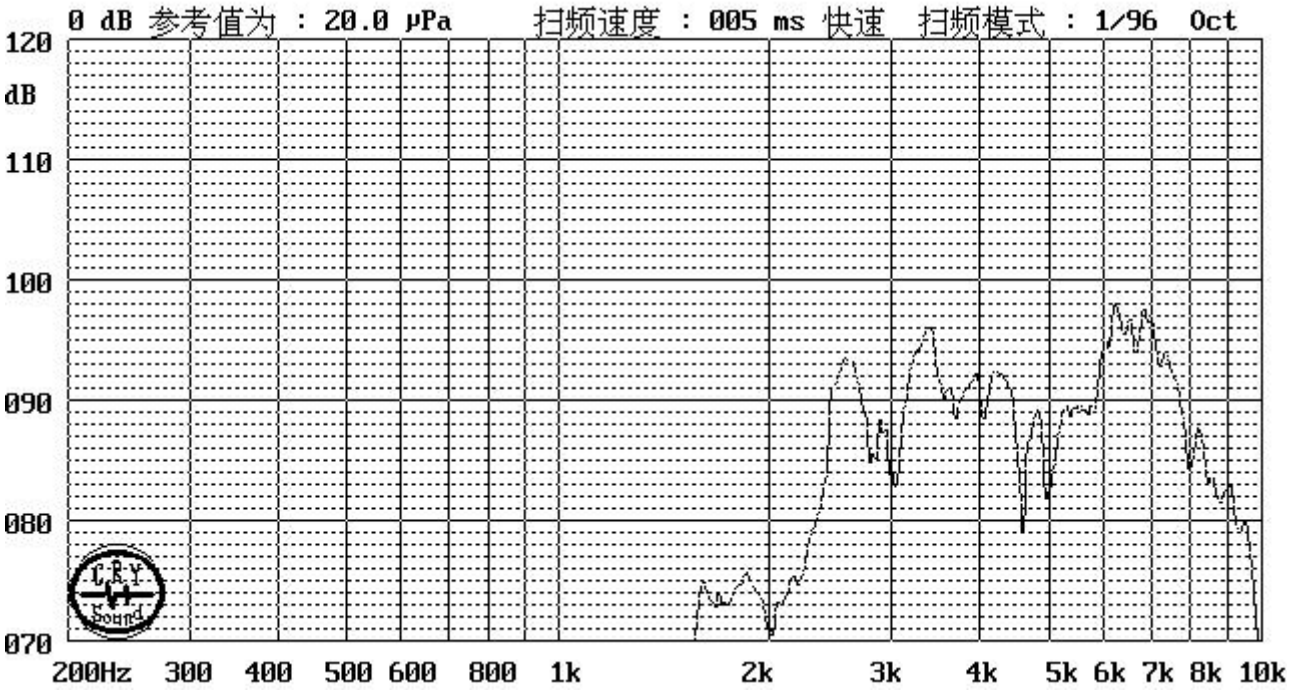
Unit:mm Tolerance : ±0.5mm

D. RECOMMEND DRIVING CIRCUIT

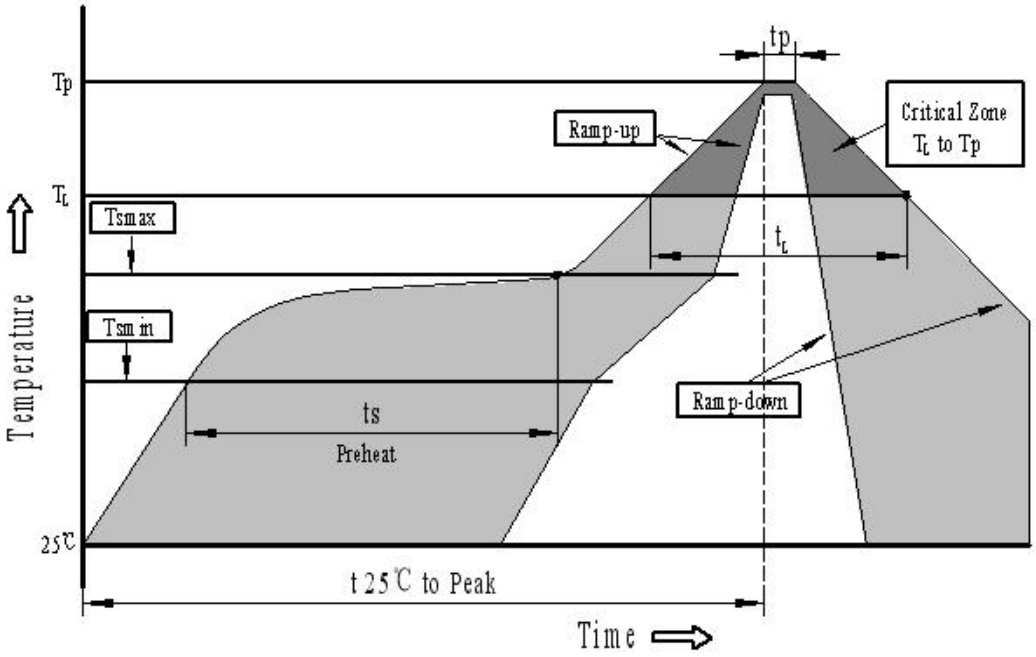


2730Hz1/2duty

E.FREQUENCY CURVE

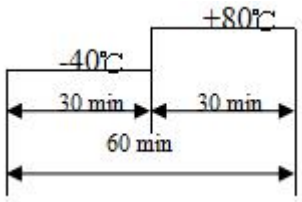
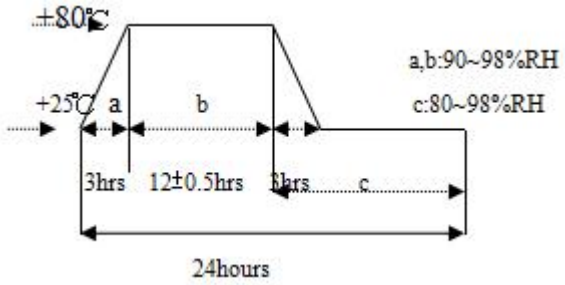


F.RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN



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.RELIABILTY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with +80ºC for 96 hours and then being placed in normal condition for 4 hours. Allowable variation of SPL after test: 10dB.
2	Low Temperature Test (Storage)	After being Placed in a chamber with -40ºC for 96 hours and then being placed in normal condition for 4 hours. Allowable variation of SPL after test: 10dB.
3	Thermal shock test	The part shall be subjected to 10 cycles. One cycle shall consist of::  then being placed in normal condition for 4 hours. Allowable variation of SPL after test: 10dB.
4	Temp./Humidity Cycle test	The part shall be subjected to 10 cycle shall be 24 hours and consist of;  then being placed in normal condition for 4 hours. Allowable variation of SPL after test: 10dB.
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,9 times, at the height of 75cm . Allowable variation of SPL after test: 10dB.
6	Vibration Test	After being applied vibration of amplitude of 1.52mmwith 10Hz to 55 Hz to 10Hz 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 +245 5° C for 3 1 seconds . 90% min. lead terminals shall be wet with solder(Except the edge of terminals).

8	SolderingHeat 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 for10 seconds. No visible damage and cutting off.

H.RELIABILITY TEST

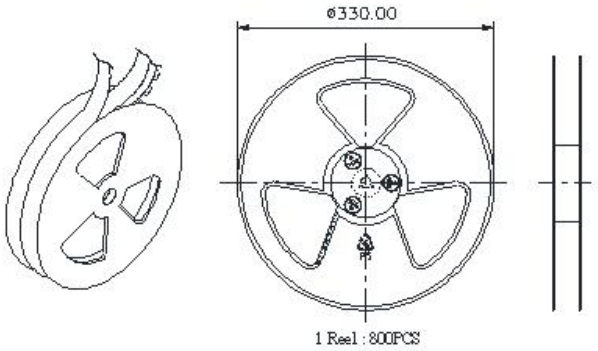
No.	Item	Test condition	Evaluation standard
1	Operating life test	1.Ordinary temperature The part shall be subjected to 96 hours at room temperature with 3.6V,2730Hz applied. 2. High temperature The part shall be subjected to 72 hours at +60℃ with 3.6V,2730Hz applied. 3.Low temperature The part shall be subjected to 72 hours at -20℃ with 3.6V,2730Hz applied.	After the test the part shall meet specifications without any degradation in appearance and performance except SPL. after 4 hours at +25℃,The SPL should be in ± 10dBA compared with initial one.

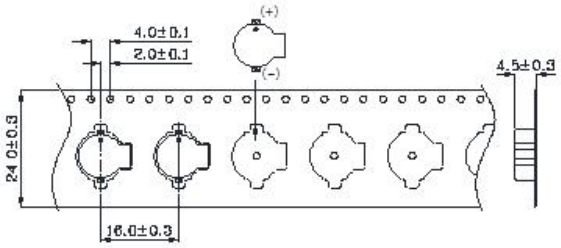
TEST CONDITION

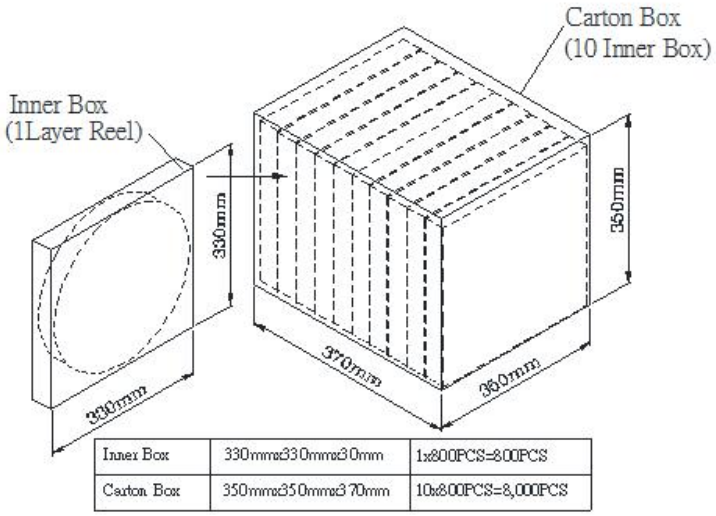
Standard Test Condition : a) Temperature : +5 ~ +35℃ b) Humidity : 45-85% c) Pressure : 860-1060mbar

Judgment Test Condition: a) Temperature : +25±2℃ b) Humidity : 60-70% c) Pressure : 860-1060mbar

I. PACKING STANDARD







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

J.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.

K. 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.

L.REVISION

No.	DATE	DESCRIPTION	REMARK	VERSION
1	Jan.4,2017	Initial condition	TDA-M90040-0327	V1.0
2	Aug.29,2019	Version upgrade	TDA-M90040-0327	V2.0
3	Nov.05	Update packing method	TDA-M90040-0327	V2.1