



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-M40020D-0340

客户料号

PART NO : _____

审核	秦皓	主办	唐俐雅 Aug.2,2018
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客户承认栏			
承认		拒收	

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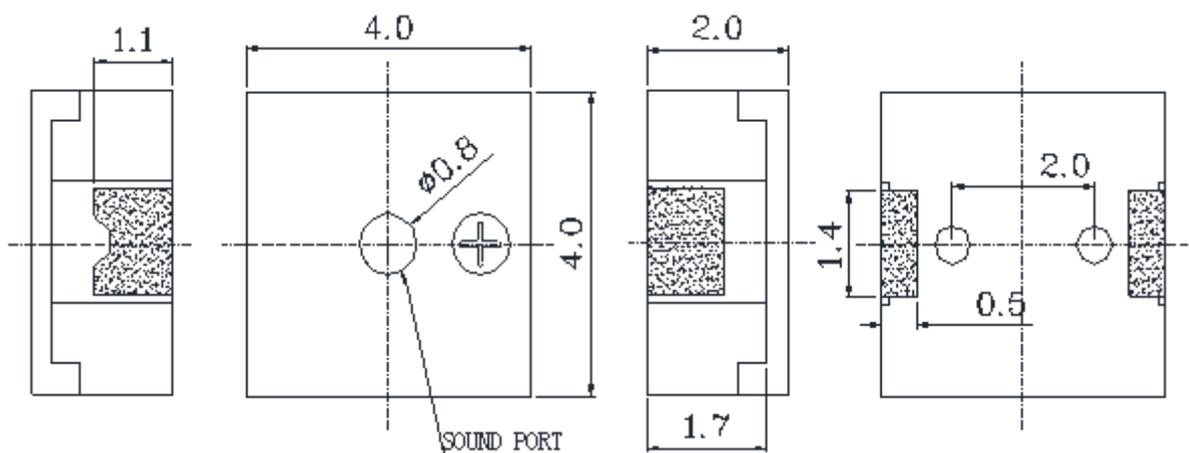
A. SCOPE

This specification applies magnetic buzzer, **TDA-M40020D-0340**

B. SPECIFICATION

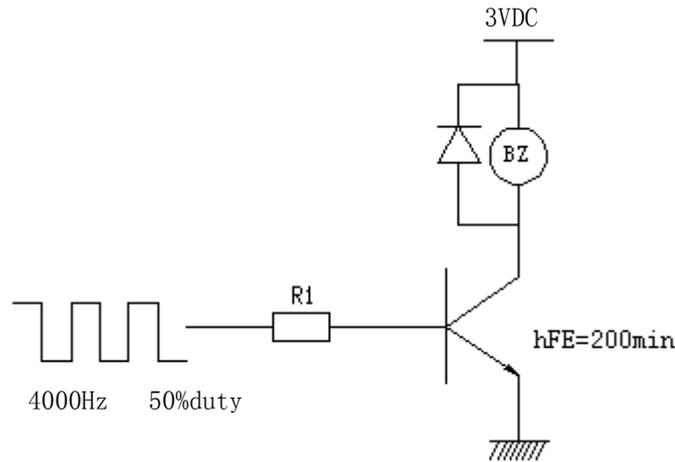
No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	4000	Square Wave
2	Operating Voltage	Vdc	2 ~4	
3	Rated Voltage	Vdc	3.0	
4	Current Consumption	mA	MAX. 90	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 75	at 5cm ,at 3Vdc,4000Hz
6	Coil Resistance	Ω	17 \pm 3	
7	Operating Temperature	$^{\circ}\text{C}$	-30 ~ +70	
8	Storage Temperature	$^{\circ}\text{C}$	-40 ~ +80	
9	Dimension	mm	4.0x4.0x H2.0	See appearance drawing
10	Weight (MAX)	gram	0.1	
11	Housing Material		LCP(Black)	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING

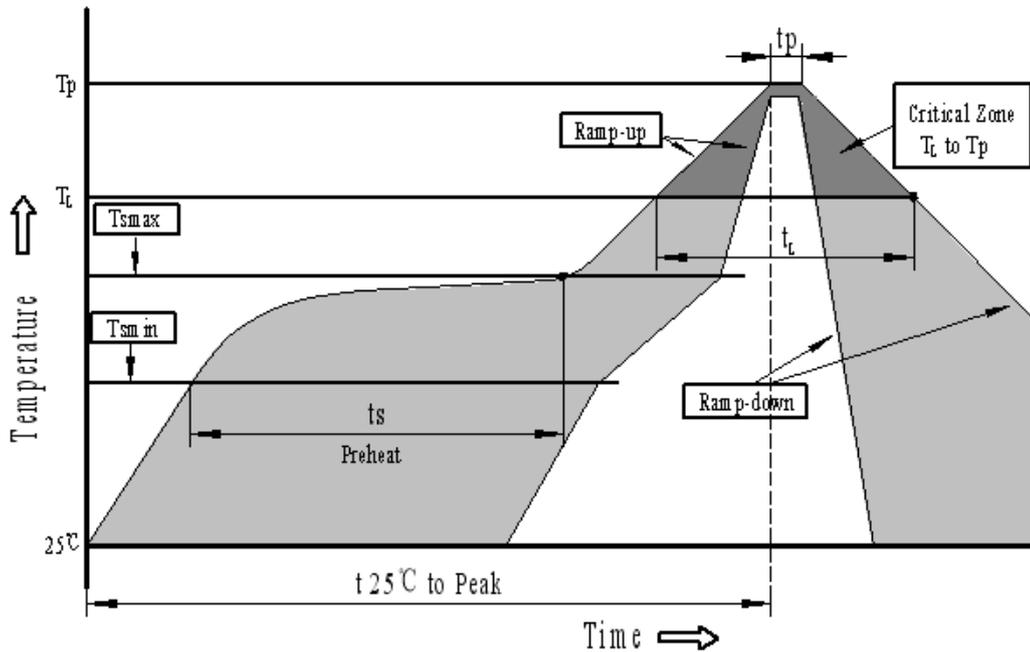


Unit:mm Tolerance : $\pm 0.3\text{mm}$

D. RECOMMEND DRIVING CIRCUIT

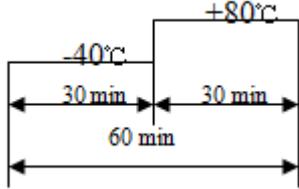
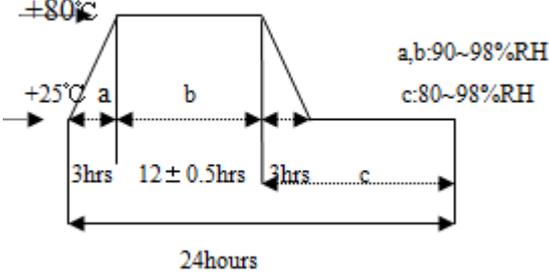


E. RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN



Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to T_p)	3°C/second max.
Preheat	
-Temperature Min.(T_{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.

F. RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	<p>After being placed in a chamber with 80 °C for 96 hours and then being placed in normal condition for 2 hours.</p> <p>Allowable variation of SPL after test: 10dB.</p>
2	Low Temperature Test (Storage)	<p>After being Placed in a chamber with -40 °C for 96 hours and then being placed in normal condition for 2 hours.</p> <p>Allowable variation of SPL after test: 10dB.</p>
3	Thermal shock	<p>he part shall be subjected to 5 cycles. One cycle shall consist of :</p>  <p>The diagram shows a thermal shock cycle. It starts at a baseline temperature. The temperature drops to -40°C for 30 minutes. Then, it rises to +80°C for 30 minutes. The total duration of one cycle is 60 minutes.</p> <p>Allowable variation of SPL after test: 10dB.</p>
4	Temperature/Humidity Cycle Test	<p>The part shall be subjected to 10 cycles. One cycle shall be consist of:</p>  <p>The diagram shows a Temperature/Humidity Cycle Test cycle. It starts at +25°C. The temperature rises to +80°C (labeled 'a') for 3 hours. The temperature remains at +80°C for 12 ± 0.5 hours (labeled 'b'). The temperature falls back to +25°C for 3 hours. The humidity is maintained at 90-98%RH (labeled 'a,b') and 80-98%RH (labeled 'c') during the respective phases. The total duration of one cycle is 24 hours.</p> <p>Allowable variation of SPL after test: 10dB.</p>
5	Drop Test	<p>Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm .</p> <p>Allowable variation of SPL after test: 10dB.</p>
6	Vibration Test	<p>After being applied vibration of amplitude of 1.52mmwith 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours .</p> <p>Allowable variation of SPL after test: 10dB.</p>
7	Solderability Test	<p>Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +245 °C for 3 0.5seconds .</p> <p>90% min. lead terminals shall be wet with solder (Except the edge of terminals).</p>
8	Soldering Heat Resistance	<p>Stripped wires are immersed up to 1.5mm from insulation in solder bath of 260±5°C for 2±0.5 seconds.</p>

9	Terminal Strength Pulling Test	The force of 4.9N(0.5kg) is applied to each terminal in axial direction for 60 seconds. No visible damage and cutting off.
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G.RELIABILTY TEST

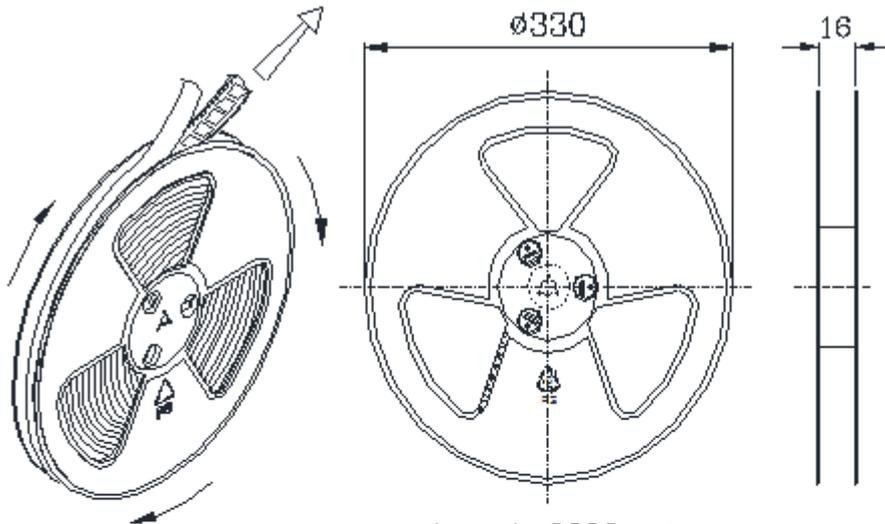
No.	Item	Test condition	Evaluation standard
1	Operating life test	<ol style="list-style-type: none"> 1. Ordinary temperature The part shall be subjected to 100 hours at room temperature (+25±10℃) with 3.0V,4000HZ applied. 2. High temperature The part shall be subjected to 50 hours at +60℃ with 3.0V, 4000HZ applied. 3. Low temperature The part shall be subjected to 50 hours at -20℃ with 3.0V,4000HZ applied. 	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.

TEST CONDITION

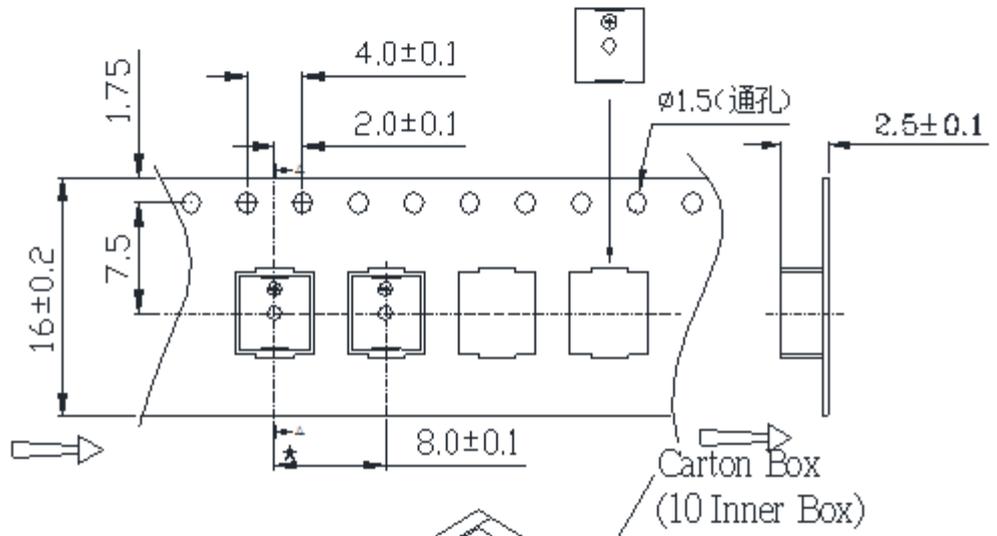
Standard Test Condition : a) Temperature : +5 ~ +35℃ b) Humidity : 45-85% c) Pressure : 860-1060mbar

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

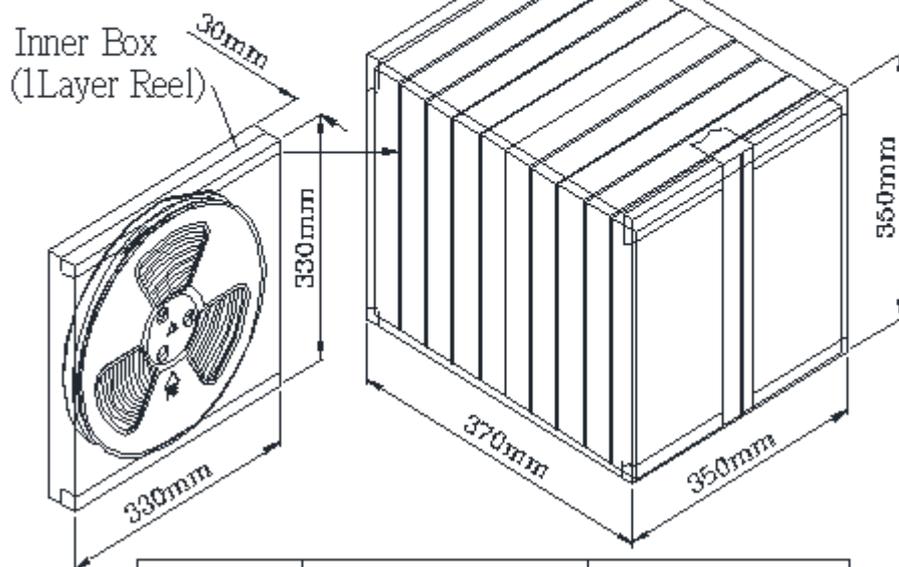
H. PACKING STANDARD



1 Reel : 3000PCS



Carton Box
(10 Inner Box)



Inner Box	330mmx330mmx30mm	1x3000PCS=3000PCS
Carton Box	350mmx350mmx370mm	10x3000PCS=30,000PCS

