



HYDZ[®]

MESSRS:

SPECIFICATION FOR APPROVAL

产 品 规 格 书

DESCRIPTION : SMD BUZZER
PART NO. : HYG9032CF
USER' S PART NO. :
DATE : 2013-06-06
CUSTOMER APPROVED :

Approved By	Checked By	Made By

兴化市华宇电子有限公司

XINGHUA HUAYU ELECTRONICS CO., LTD

地址：江苏省兴化市陈堡工业区人民路 1 号
电话：0523-83723110 传真：0523-83723118
手机：15061045003 邮箱：china_hydz@163.com

HYG9032CF

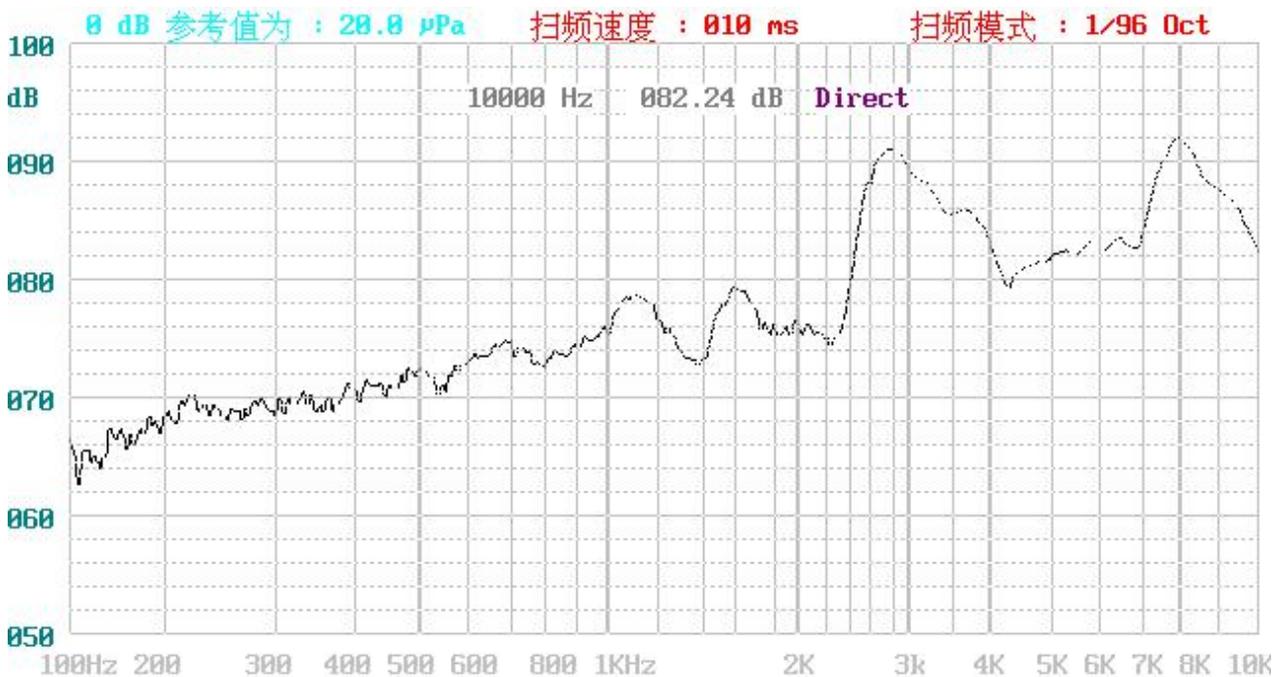
1 . Electrical Characteristics

VER.:0

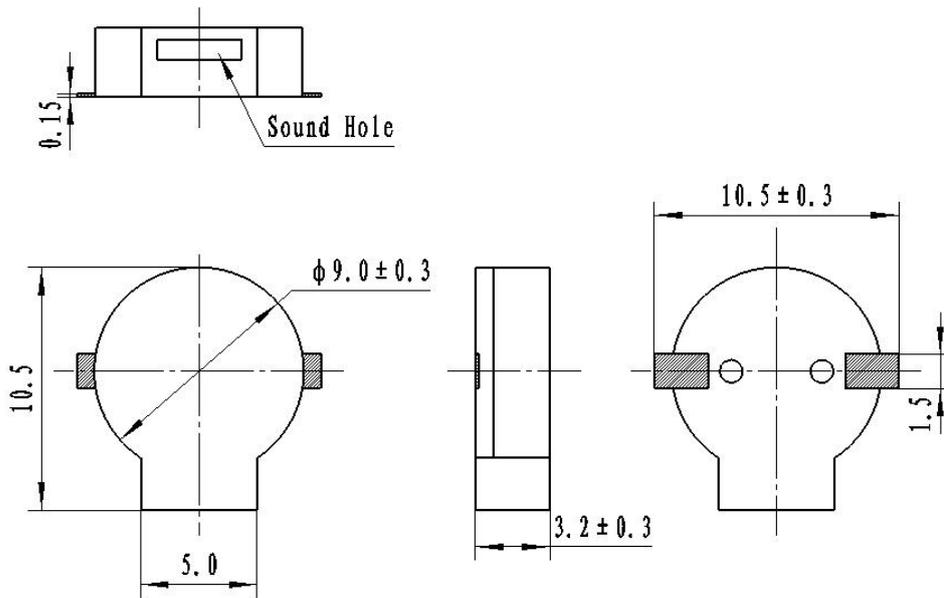
1	Model No.	HYG9032CF
2	Rated Voltage (V)	3
3	Operating Voltage (V)	2~4
4	Coil Resistance (Ω)	16 \pm 3
5	Resonant Frequency (Hz)	2700
6	*Sound Output at 10cm (dB)	\geq 90dB
7	*Current Consumption (mA)	\leq 60
8	Operating Temperature ($^{\circ}$ C)	-20~+70
9	Storage Temperature ($^{\circ}$ C)	-30~+80
10	Weight (g)	0.8
11	Housing Material	LCP
12	RoHS	Yes

*Applying rated voltage (Resonant frequency, 1/2 duty, Square wave)

2 . Typical Frequency Response Curve



3 . Dimensions and Material

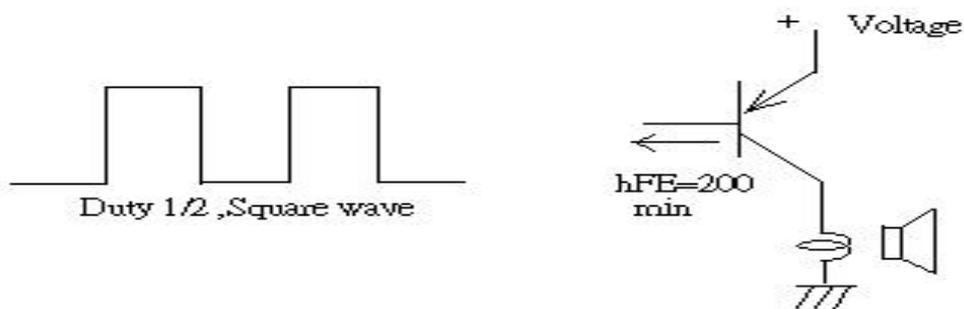


Unit : mm TOL: ± 0.3

3-2 Material

Housing	LCP plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	0.6

4 . Recommend Driving Circuit



The base current I_b should high enough so that it saturates the collector current of the transistor with the CB load.

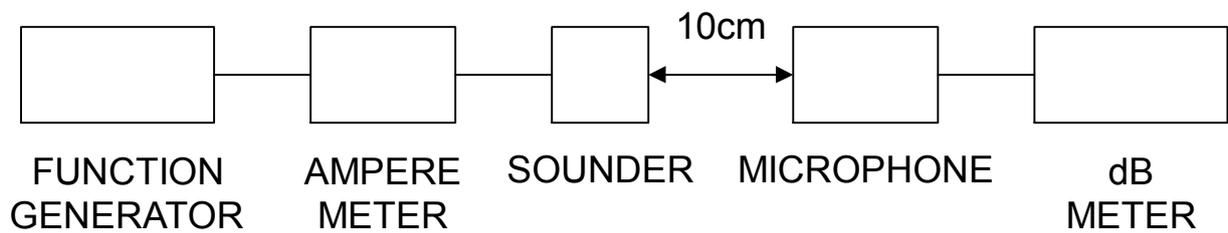
5. TESTING METHOD

- **Standard Measurement conditions**

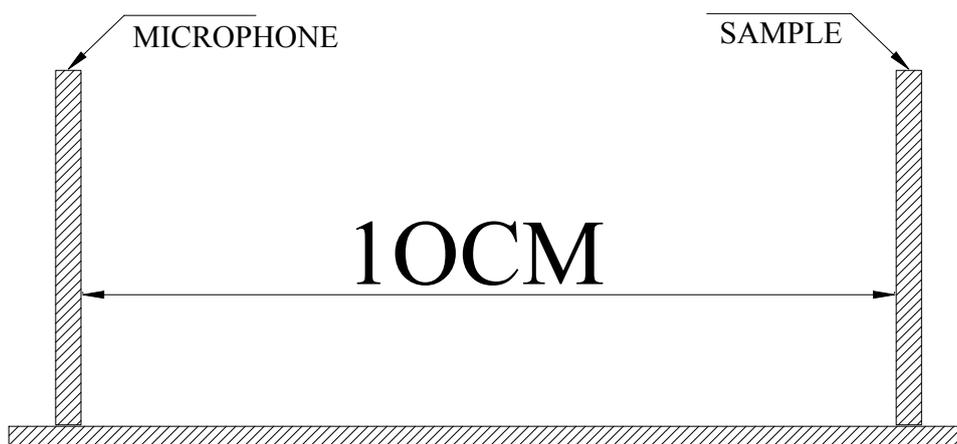
Temperature: $25 \pm 2^\circ\text{C}$ Humidity: 45-60%

- **Acoustic Characteristics**

The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below.



In the measuring test, buzzers is placed as follows:



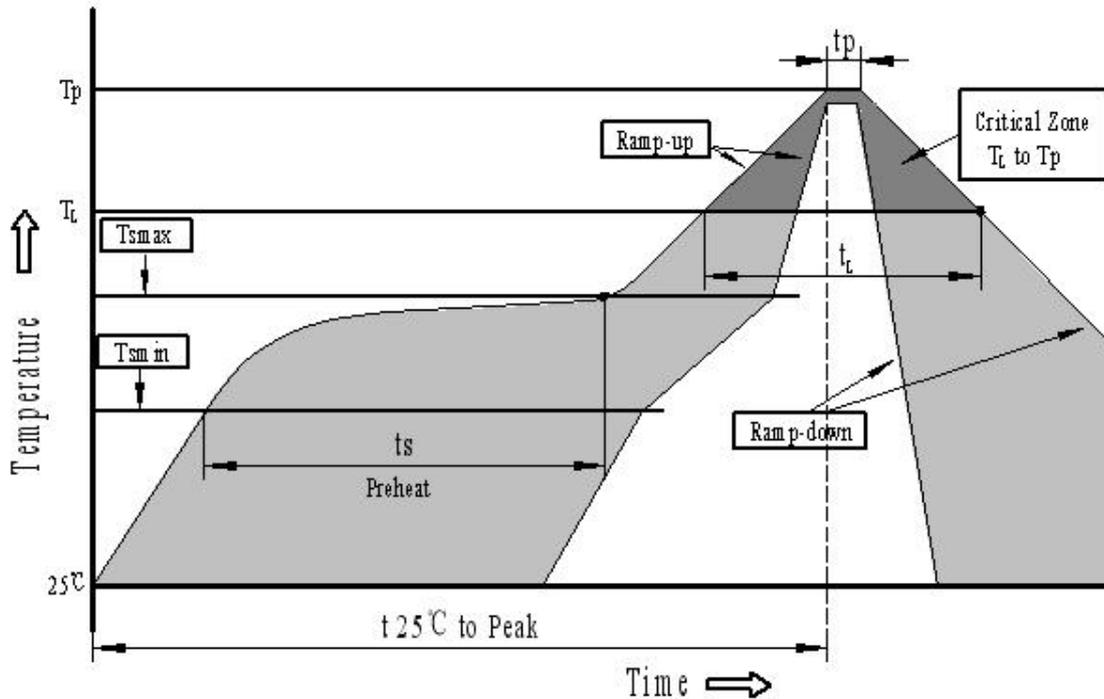
6. RELIABILITY

ITEMS	METHOD OF TEST AND MEASUREMENTS	PERFORMANCE
<i>Coldness withstanding</i>	<i>After 98 hours of being exposed to -30 °C environment, should be returned to normal environment for 2 hours, then re-proceed to test.</i>	<i>No abnormality shall exist</i>
<i>Hotness withstanding</i>	<i>After 98 hours of being exposed to +80 °C environment, should be returned to normal environment for 2 hours, then re-proceed to test.</i>	<i>No abnormality shall exist</i>
<i>Humidity withstanding</i>	<i>After 98 hours of being exposed to 40 °C 95%RH environment in actual operation, should be returned to normal environment for 2 hours, then re-proceed to test.</i>	<i>No abnormality shall exist</i>
<i>Durability</i>	<i>Testing after 1,000 hours actual continuous operation. (at standard measurement conditions)</i>	<i>No abnormality shall exist</i>
<i>Drop withstanding</i>	<i>A natural drop from 75cm high down to the ground.</i>	<i>No abnormality shall exist</i>
<i>Vibration withstanding</i>	<i>Vibration of 2,000 cycles per minute, 2mm amplitude, applied in X, Y and Z directions for 30 minutes each.</i>	<i>No abnormality shall exist</i>

7.Soldering Condition

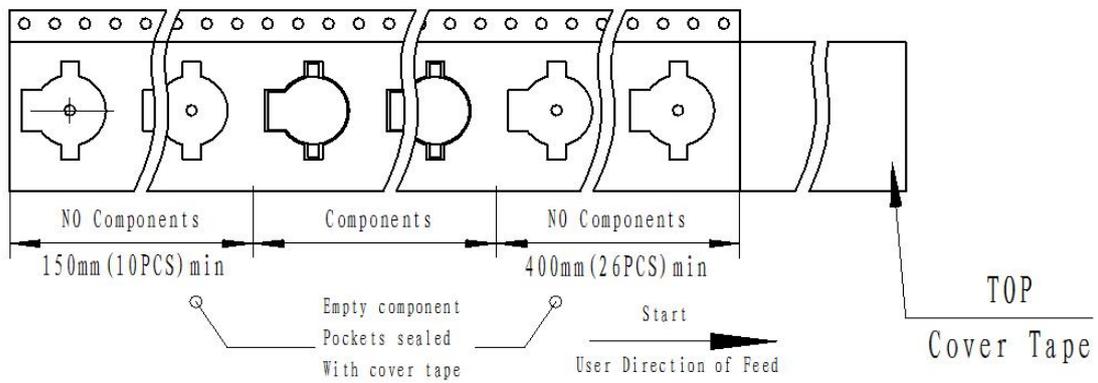
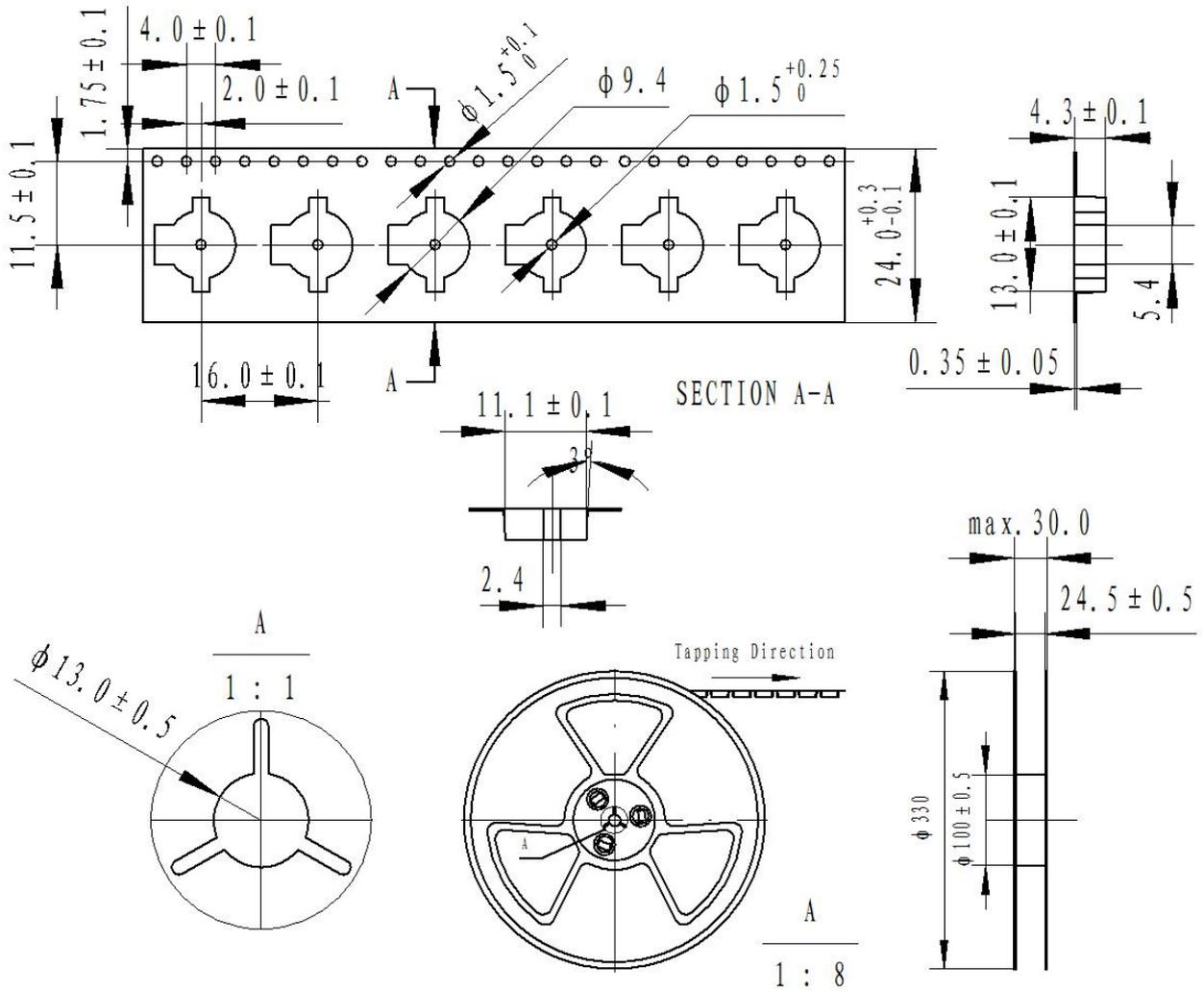
(1)Recommendable reflow soldering condition is as follows
(Reflow soldering is twice)

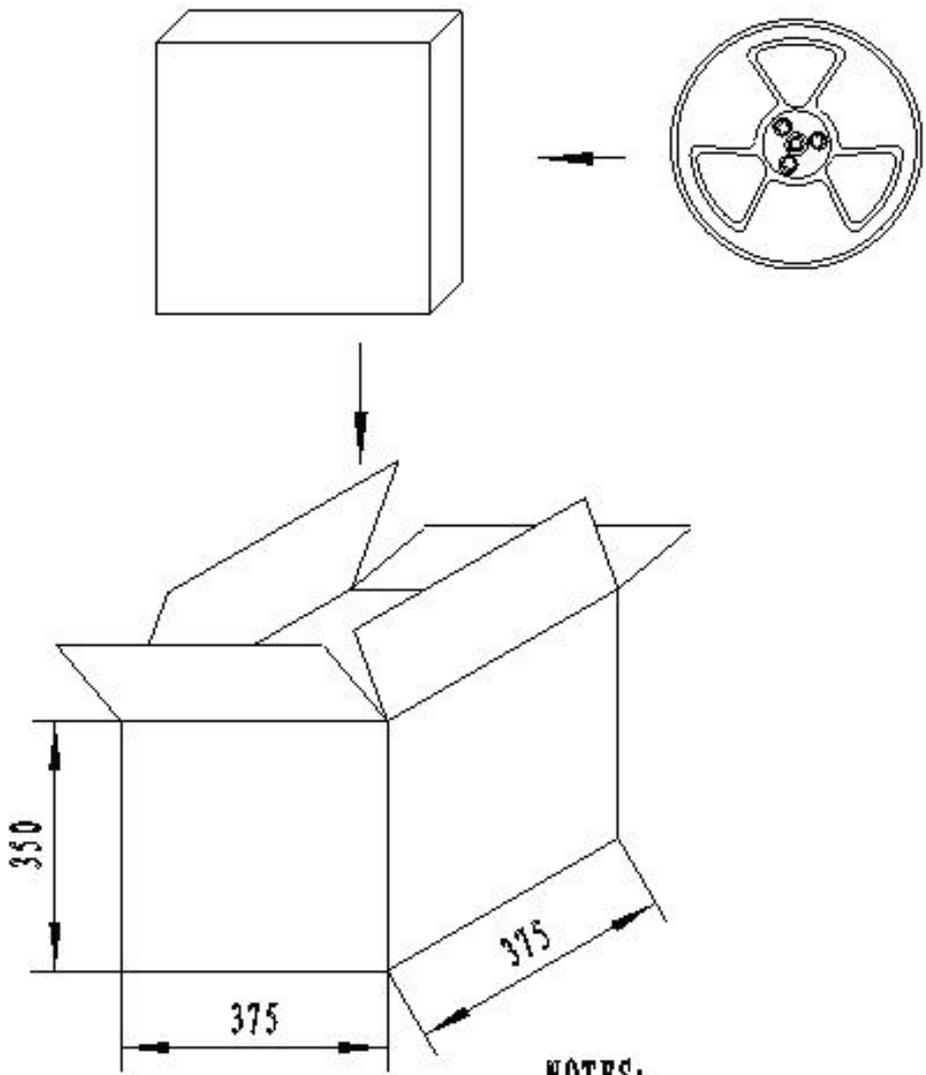
Note:It is requested that reflow soldering should be executed after heat of product goes down to normal.



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)	250°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.

8. PACKAGE METHOD





NOTES:

- 1. 1000 PCS per box
- 2. Total 10 boxes per carton
- 3. Total 10000 PCS carton