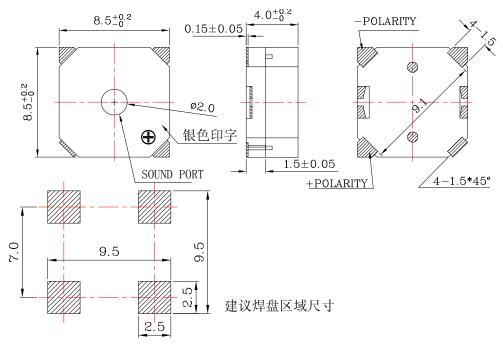
### A. SCOPE

This specification applies magnetic buzzer, SMT-8540A-03627

## **B. SPECIFICATION**

No.	ltem	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2700	Vo-p=1/2duty , 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 Rated Voltage
5	Sound Pressure Level	dB	MIN. 85	at 10cm at Rated Voltage
6	Coil Resistance	Ω	16±3	
7	Operating Temperature	$^{\circ}\!\mathbb{C}$	-20 ~ +70	
8	Storage Temperature	$^{\circ}\!\mathbb{C}$	-30 ~ +80	
9	Dimension	mm	8.5 x 8.5 x H4.0	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



Tol:  $\pm 0.5$  Unit: mm

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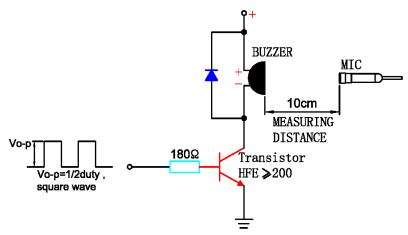
### **D.TESTING METHOD**

## **Standard Measurement conditions**

Temperature:25±2°C Humidity:45-65%

### **Acoustic Characteristics:**

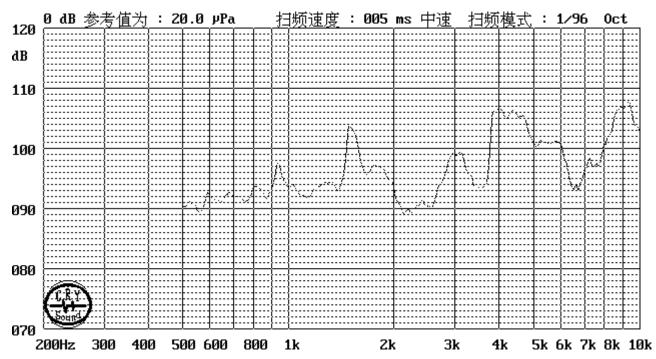
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



In the measuring test, buzzer is placed as follows:

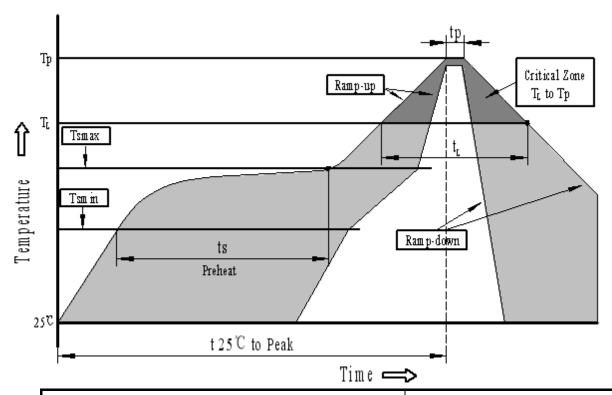


## E. Typical Frequency Response Curve



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## F. Recommended Temp. Profile for Reflow Oven (Fig.1)



Profile Feature	Pb-Free Assembly		
Average ramp-up rate( $T_L$ to $Tp$ ) (217°C~250+0/-5°C)	3°C/second max.		
Preheat			
-Temperature Min.(Ts <sub>min</sub> )	150℃		
-Temperature Min.(Ts <sub>max</sub> )	200°C		
-Temperature Min.(ts) (150°C~200°C)	60∼180 seconds		
Ts <sub>max</sub> to T <sub>L</sub>			
-Ramp-up Rate	3°C/second max.		
Time maintained above:			
- Temperature( $T_L$ )	217℃		
-Time(T <sub>L</sub> ) <b>217</b> °C	60∼150 seconds		
Peak temperature(Tp)	250°C+0/-5°C		
Time within 5°Cof actual Peak temperature (tp) (250°C+0/-5°C)	6 seconds max.		
Ramp-down Rate	6°C/second max.		
Time 25°C to Peak Temperature	8 minutes max.		

### **G. RELIABILITY TEST**

	IADILII I IESI	TEGT COMPITION AND DEGLEDENT	
NO.	ITEM	TEST CONDITION AND REQUIREMENT	
1	High Temperature	After being placed in a chamber with 80±2°C for 96 hours and then being placed in normal condition for 2 hours.	
	Test (Storage)	Allowable variation of SPL after test: ±10dB.	
		After being Placed in a chamber with -30±2°C for 96 hours and then	
2	Low Temperature Test (Storage)	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.	
	Temperature Cycle Test	The part shall be subjected to 5 cycles. One cycle shall be consist of:	
		+70°C	
		+25°C +25°C	
4		-20°C	
		0.5hr 0.5 0.25 0.5 0.5 0.25 3hours	
		Allowable variation of SPL after test: ±10dB.	
	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,6 times,	
5		at the height of 75cm.	
		Allowable variation of SPL after test: ±10dB.	
	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for	
6		2 hours.	
		Allowable variation of SPL after test: ±10dB.	
		Lead terminals are immersed in rosin for 5 seconds and then	
7	Solderability	immersed in solder bath of $+300\pm5^{\circ}$ C for $3\pm1$ seconds .	
'	Test	90% min. lead terminals shall be wet with solder	
		(Except the edge of terminals).	
	Terminal Strength Pulling Test	The force of 9.8N(1.0kg) is applied to each terminal in axial direction for	
8		10 seconds.	
		No visible damage and cutting off.	
	Operating life test	Continuous life test  The part shall be subjected to 72 hours at ±70°C with 4.4V.4000Hz applied	
		The part shall be subjected to 72 hours at +70°C with 4.4V,4000Hz applied.  Intermittent life test	
		A duty cycle of 1 minute on,1 minutes off,a minimum of 10000 times at room	
9		temp.(+25±10°C)with 4.4V,4000Hz applied.	
		After the test the part shall meet specifications with-out any degradation in	
		appearance and performance except SPL.after 4 hours at +25 ℃.	
		Allowable variation of SPL after test: ±10dB.	

#### **TEST CONDITION.**

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

 一般测试条件
 : a) 温度: +5 ~ +35℃
 b) 湿度: 45-85%
 c) 气压: 860-1060mbar

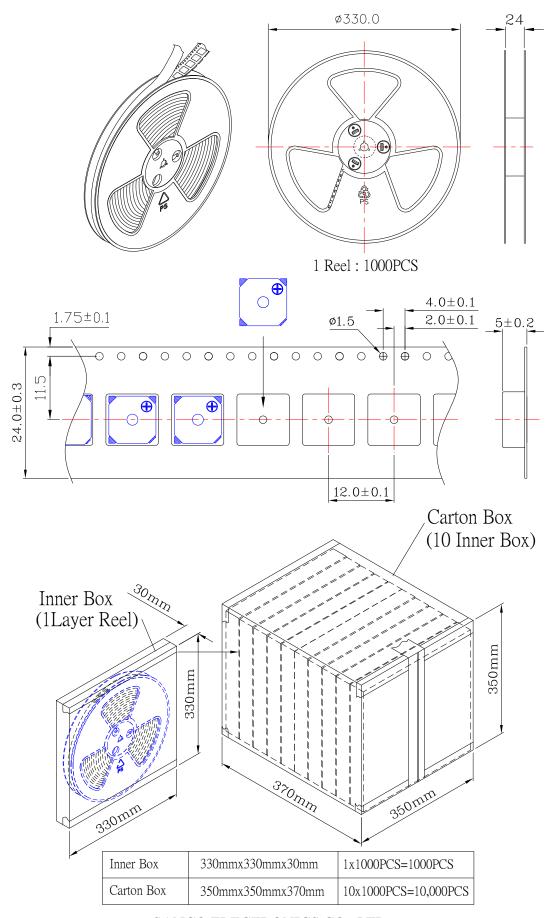
 Judgment Test Condition
 : a) Temperature: +25 ± 2℃
 b) Humidity: 60-70%
 c) Pressure: 860-1060mbar

 争议时测试条件
 : a) 温度: +25 ± 2℃
 b) 湿度: 60-70%
 c) 气压: 860-1060mbar

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### H. PACKING STANDARD



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