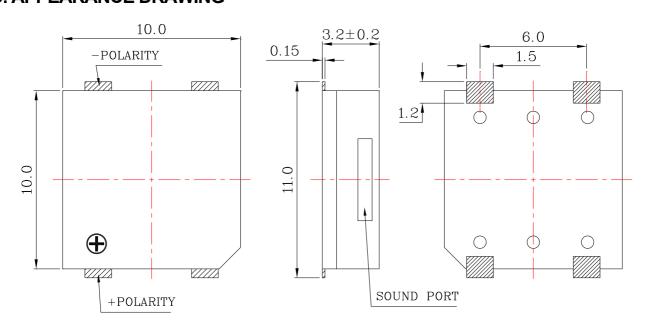
A. SCOPE

This specification applies magnetic buzzer, SMT-1032B-036028

B. SPECIFICATION

No.	ltem	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2830	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. 93	at 10cm at Rated Voltage
6	Coil Resistance	Ω	18±3	
7	Operating Temperature	$^{\circ}\!\mathbb{C}$	-40 ~ +85	
8	Storage Temperature	$^{\circ}\!\mathbb{C}$	-40 ~ +85	
9	Dimension	mm	10.0 x 10.0 x 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



Tol: ± 0.5 Unit: mm

SANCO ELECTRONICS CO., LTD.
TEL: +86-574-83851068 FAX: +86-574-83851068
EMAIL: Sales@sancoelectronics.com

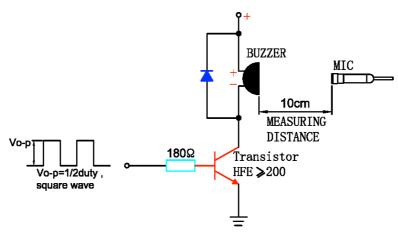
D.TESTING METHOD

Standard Measurement conditions

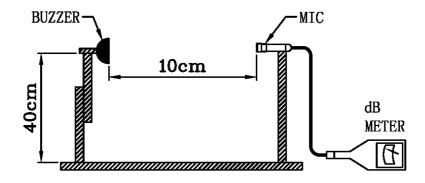
Temperature:25±2°C Humidity:45-65%

Acoustic Characteristics:

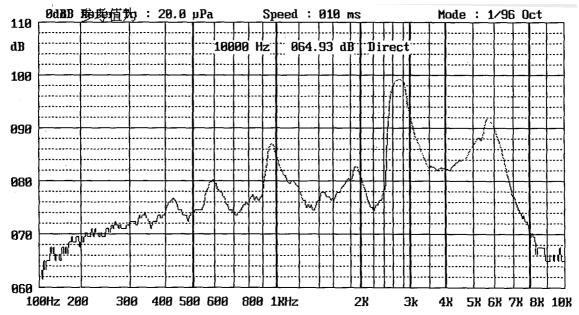
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



In the measuring test, buzzer is placed as follows:



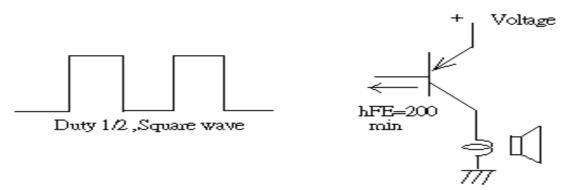
E. Typical Frequency Response Curve



SANCO ELECTRONICS CO., LTD. TEL: +86-574-83851068 FAX: +86-574-83851068

EMAIL: Sales@sancoelectronics.com

F. Recommend Driving Circuit

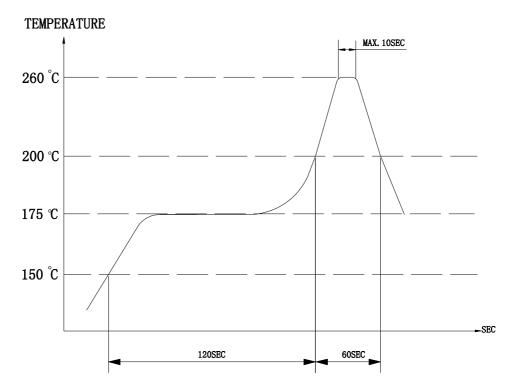


The base current Ib should high enough so that it saturates the collector current of the transistor with the CB load.

G. 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.



Heat resistant line

(Used when heat resistant reliability test is performed)

(2)Manual soldering

Manual soldering temperature 350 °C within 5 sec.

SANCO ELECTRONICS CO., LTD.
TEL: +86-574-83851068 FAX: +86-574-83851068

EMAIL: Sales@sancoelectronics.com

H. RELIABILITY TEST

High Temperature Test (Storage)	NO.	ITEM	TEST CONDITION AND REQUIREMENT		
Test (Storage) Low Temperature Test (Storage) After being Placed in a chamber with -3002°C for 96 hours and then being placed in a chamber with -3002°C for 96 hours and then being placed in a chamber with -3002°C for 96 hours and then being placed in a chamber with 90-95% R.H. at 4002°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: 610dB. The part shall be subjected to 5 cycles. One cycle shall be consist of : Allowable variation of SPL after test: 610dB. The part shall be subjected to 5 cycles. One cycle shall be consist of : Allowable variation of SPL after test: 610dB. Drop Test Allowable variation of SPL after test: 610dB. Drop on a hard wood board of 4cm thick, any directions, 6 times, at the height of 75cm. Allowable variation of SPL after test: 610dB. 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: 610dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +30035°C for 301 seconds. 90% min. lead terminals shall be wet with solder (Except the edge of terminals). The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.			After being placed in a chamber with 8082°C for 96 hours and then		
Allowable variation of SPL after test: 010dB. After being Placed in a chamber with -30\textito 2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: \textito 10dB. After being Placed in a chamber with 90-95% R.H. at 40\textito 2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: \textito 10dB. The part shall be subjected to 5 cycles. One cycle shall be consist of: ### 125°C 1	1				
being placed in normal condition for 2 hours. Allowable variation of SPL after test: d10dB. After being Placed in a chamber with 90-95% R.H. at 4082°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: d10dB. The part shall be subjected to 5 cycles. One cycle shall be consist of: Temperature Cycle Test Temperature Cycle Test Allowable variation of SPL after test: d10dB. Drop on a hard wood board of 4cm thick, any directions, 6 times, at the height of 75cm. Allowable variation of SPL after test: d10dB. After being papiled 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: d10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +30005°C for 3d1 seconds. Terminal Strength Pulling Test			Allowable variation of SPL after test: ð10dB.		
Test (Storage) Allowable variation of SPL after test: \(\partial \text{OddB}\). After being Placed in a chamber with 90-95% R.H. at 40\(\partial \text{A02}^{\circ}\) for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: \(\partial \text{OdB}\). The part shall be subjected to 5 cycles. One cycle shall be consist of: Allowable variation of SPL after test: \(\partial \text{OdB}\). Drop Test		=	After being Placed in a chamber with -30ŏ2°C for 96 hours and then		
Allowable variation of SPL after test: 010dB. Temperature Cycle Test Temperature Cycle Test Allowable variation of SPL after test: 010dB. The part shall be subjected to 5 cycles. One cycle shall be consist of: #60°C #10°C #10°	2				
Allowable variation of SPL after test: \(\partial 010dB\). Temperature Cycle Test Allowable variation of SPL after test: \(\partial 010dB\). Temperature Cycle Test Allowable variation of SPL after test: \(\partial 010dB\). Drop Test Allowable variation of SPL after test: \(\partial 010dB\). Drop on a hard wood board of 4cm thick, any directions \(\partial 6\) times, at the height of 75cm. Allowable variation of SPL after test: \(\partial 010dB\). 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: \(\partial 010dB\). 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: \(\partial 010dB\). Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +30035°C for 301 seconds. 90% min. lead terminals shall be wet with solder (Except the edge of terminals). The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.			Allowable variation of SPL after test: ð10dB.		
Allowable variation of SPL after test: \(\partial \text{10dB}\). Temperature Cycle Test Allowable variation of SPL after test: \(\partial \text{10dB}\). Allowable variation of SPL after test: \(\partial \text{10dB}\). Drop Test Allowable variation of SPL after test: \(\partial \text{10dB}\). Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: \(\partial \text{10dB}\). 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: \(\partial \text{10dB}\). Solderability Test Solderability Test Temminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.		Humidity Test	After being Placed in a chamber with 90-95% R.H. at 40\delta2\cong for 96		
Temperature Cycle Test Allowable variation of SPL after test: ð10dB. Drop Test Allowable variation of SPL after test: ð10dB. Drop Test Allowable variation of SPL after test: ð10dB. Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ð10dB. 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300d5°C for 3ð1 seconds. 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 10 seconds.	3				
Temperature Cycle Test Allowable variation of SPL after test: 310dB. Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: 310dB. 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: 310dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +30085°C for 381 seconds. Solderability Test Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.					
Temperature Cycle Test Allowable variation of SPL after test: ð10dB. Drop Test Drop Test Drop Test Allowable variation of SPL after test: ð10dB. Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ð10dB. 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. 90% min. lead terminals shall be wet with solder (Except the edge of terminals). The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.			The part shall be subjected to 5 cycles. One cycle shall be consist of:		
Temperature Cycle Test Allowable variation of SPL after test: ð10dB. Drop Test Drop Test Drop Test Allowable variation of SPL after test: ð10dB. Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ð10dB. 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. 90% min. lead terminals shall be wet with solder (Except the edge of terminals). The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.			1,000		
Temperature Cycle Test Allowable variation of SPL after test: ð10dB. Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ð10dB. Vibration Test Vibration Test Vibration Test Solderability Test Temminal Strength Pulling Test Test Temminal Strength Pulling Test Test Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Temminal Strength Pulling Test Temminal Strength Pulling Test Temminal Strength Pulling Test Test Temminal Strength Pulling Test Test Test Test Test Temminal Strength Pulling Test T			+60°C		
Temperature Cycle Test Allowable variation of SPL after test: ð10dB. Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ð10dB. Vibration Test Vibration Test Vibration Test Solderability Test Temminal Strength Pulling Test Test Temminal Strength Pulling Test Test Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Temminal Strength Pulling Test Temminal Strength Pulling Test Temminal Strength Pulling Test Test Temminal Strength Pulling Test Test Test Test Test Temminal Strength Pulling Test T					
Test Test -20°C 0.5hr			+25°C +25°C		
Allowable variation of SPL after test: ð10dB. Drop Test Drop Test Allowable variation of SPL after test: ð10dB. Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ð10dB. 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Terminal Strength Pulling Test Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.	4				
Allowable variation of SPL after test: ð10dB. Drop Test Drop Test Drop Test Drop Test Drop Test Drop Test Allowable variation of SPL after test: ð10dB. 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Solderability Test Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.			-20°C		
Allowable variation of SPL after test: ð10dB. Drop Test Allowable variation of SPL after test: ð10dB. 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: ð10dB. Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds . 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 10 seconds.					
Allowable variation of SPL after test: ð10dB. Drop Test Allowable variation of SPL after test: ð10dB. 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: ð10dB. Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds . 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 10 seconds.					
Allowable variation of SPL after test: ð10dB. Drop Test Drop Test Drop Test Drop Test Allowable variation of SPL after test: ð10dB. 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Solderability Test Terminal Strength Pulling Test Test Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.			0.5 hr 0.5 0.25 0.5 0.5 0.25		
Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm. Allowable variation of SPL after test: ŏ10dB. 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: ŏ10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ŏ5°C for 3ŏ1 seconds. Solderability Test Terminal Strength Pulling Test Terminal Strength Pulling Test 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: ŏ10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ŏ5°C for 3ŏ1 seconds. Terminal Strength Pulling Test Terminal Strength Pulling Test			<u> </u>		
at the height of 75cm. Allowable variation of SPL after test: ð10dB. 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Solderability Test Terminal Strength Pulling Test Test Terminal Strength Pulling Test Test Test Terminal Strength Pulling Test Test					
Allowable variation of SPL after test: \delta 10dB. 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: \delta 10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300\delta 5°C for 3\delta 1 seconds. Solderability Test Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.		Drop 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: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Solderability Test Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.	5				
band of vibration frequency to each of 3 perpendicular directions for 2 hours. Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Test Solderability Test Terminal Strength Pulling Test Test band of vibration frequency to each of 3 perpendicular directions for 2 hours. Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. Test Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.					
2 hours . Allowable variation of SPL after test: ð10dB. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 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 10 seconds.		Vibration Test			
Allowable variation of SPL after test: $\delta 10 dB$. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+300\delta 5^{\circ}$ C for $3\delta 1$ 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 10 seconds.	6				
Solderability Test Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300ð5°C for 3ð1 seconds. 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 10 seconds.					
Solderability Test immersed in solder bath of +300ð5°C for 3ð1 seconds . 90% min. lead terminals shall be wet with solder (Except the edge of terminals). Terminal Strength Pulling Test Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.					
Test 90% min. lead terminals shall be wet with solder (Except the edge of terminals). Terminal Strength Pulling Test 10 seconds. Test					
(Except the edge of terminals). Terminal Strength Pulling Test Terminal Strength Pulling Test (Except the edge of terminals). The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.	7				
Terminal Strength Pulling Test The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds.					
8 Pulling Test 10 seconds.			The force of 9.8N(1.0kg) is applied to each terminal in axial direction for		
No visible damage and cutting off.	8		10 seconds.		
ω : ω :			No visible damage and cutting off.		

TEST CONDITION.

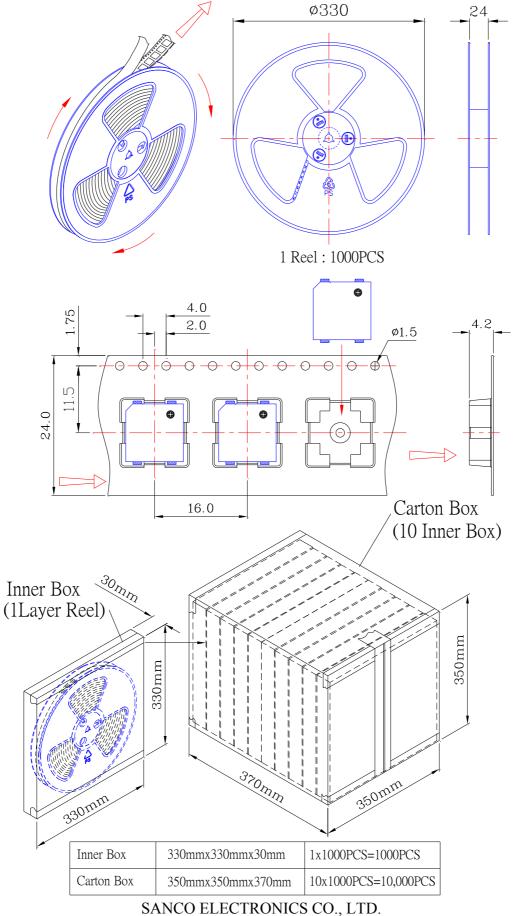
 Standard Test Condition
 : a) Temperature: +5 ~ +35℃
 b) Humidity: 45-85%
 c) Pressure: 860-1060mbar

 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

I. PACKING STANDARD



TEL: +86-574-83851068 FAX: +86-574-83851068

EMAIL: Sales@sancoelectronics.com