

SPECIFICATION FOR APPROVAL

承認書

Description : Magnetic Buzzer

Kingstate Part No. : KXG2512-A

Customer's Model No. : _____

Specification No. : TKS-5063

Number Of The Edition : 1.1

CUSTOMER'S APPROVED SIGNATURE		



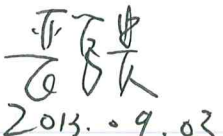
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Approved by	Checked by	Issued by
 2013.09.03	 2013.09.12	Andrew 08/29/13`

A. SCOPE 範疇

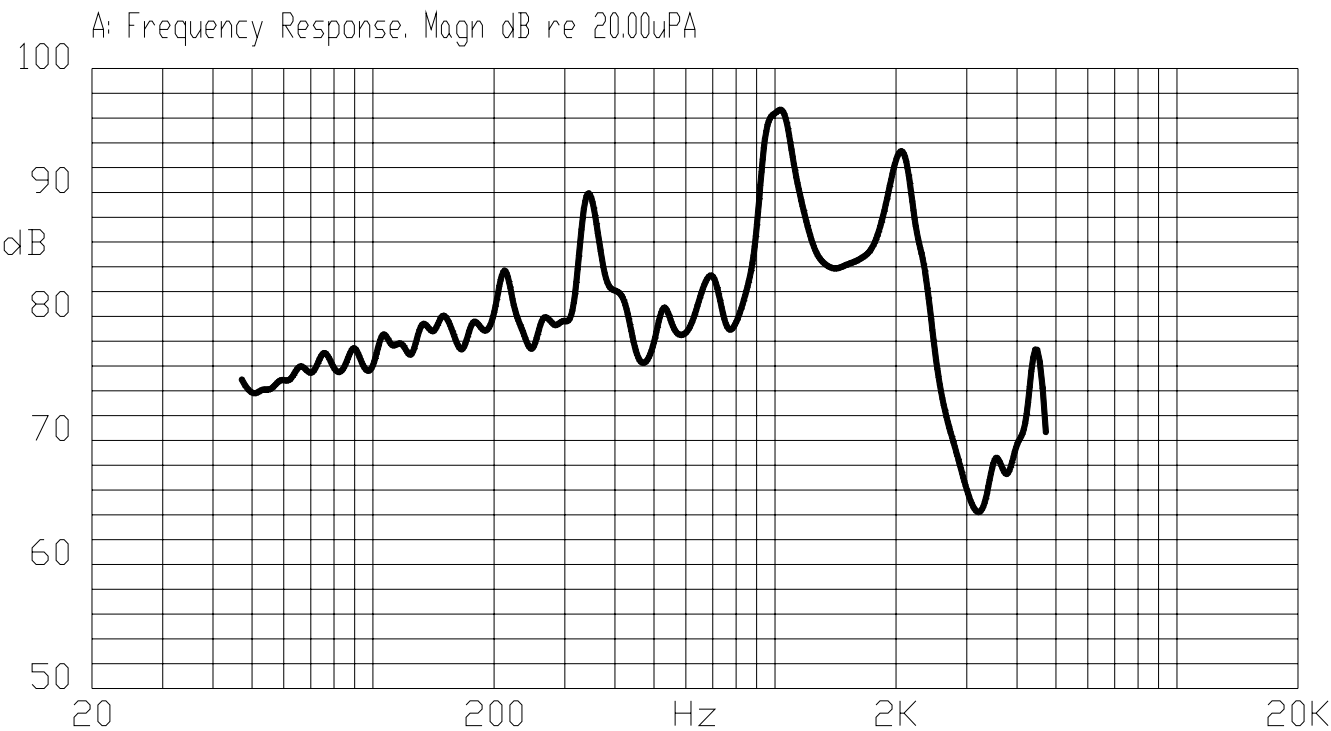
This specification applies magnetic buzzer, **KXG2512-A**

此規格書適用於電磁式蜂鳴器, **KXG2512-A**

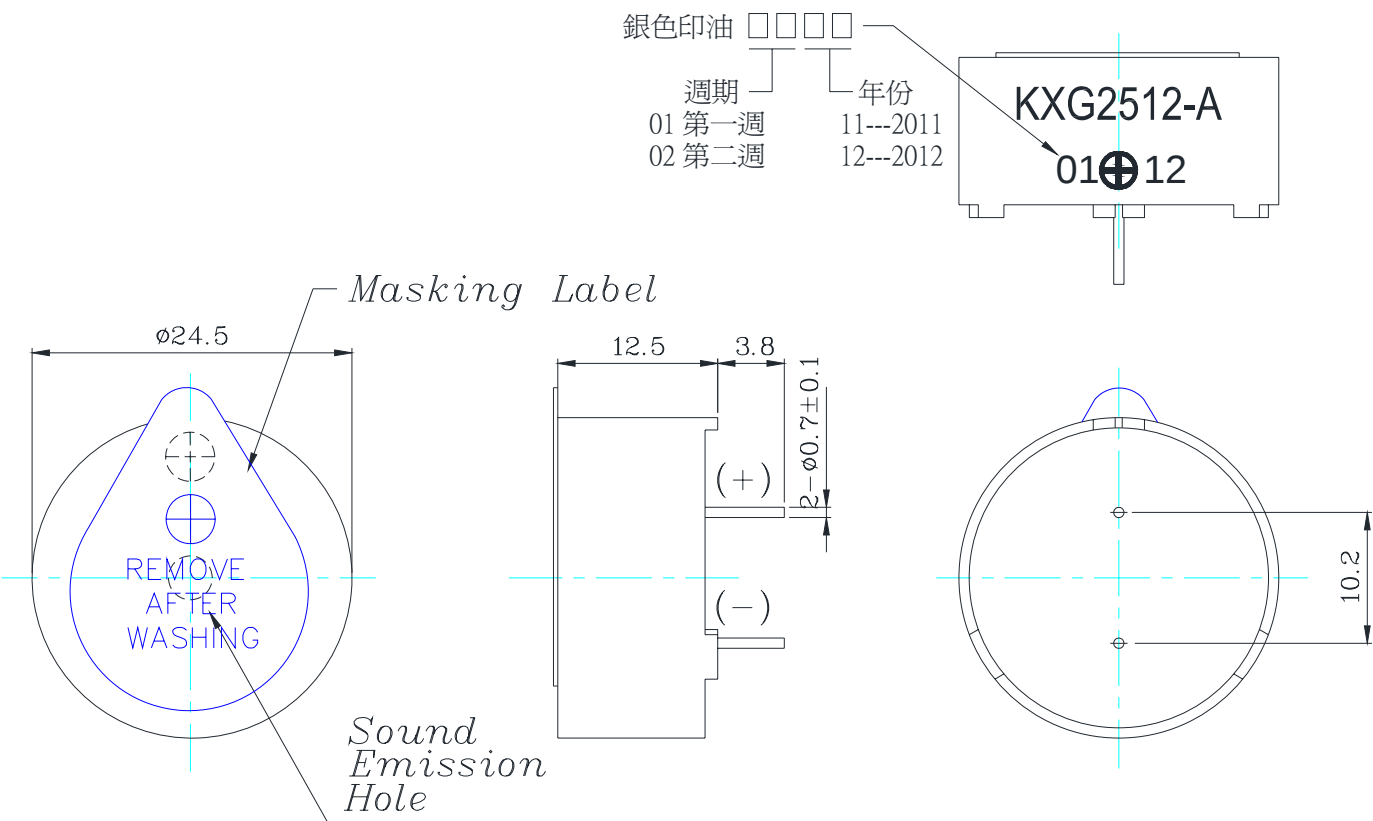
B. SPECIFICATION 規格

No.	Item	Unit	Specification	Condition
1	Rated Voltage 額定電壓	Vo-p	12	
2	Operating Volt. 操作電壓	Vo-p	10~14	
3	Mean Current 平均耗電流	mA	Max. 60	Applying rated voltage,1000Hz square wave, 1/2duty 施以額定電壓, 1000Hz, 方波, 50%負載
4	Coil Resistance 直流阻抗	Ω	115 $\pm$ 15%	
5	Sound Output 輸出音壓	dB(A)	Min.90 (Typical 95)	Distance at 10cm(A-weight free air). Applying rated voltage 1000Hz,square wave, 1/2duty 在自由音場 10 公分處, 施以額定電壓, 1000Hz, 方波, 50%負載
		dB(A)	Min.90 (Typical 95)	Distance at 10cm(A-weight free air). Applying rated voltage 2000Hz,square wave, 1/2duty 在自由音場 10 公分處, 施以額定電壓, 2000Hz, 方波, 50%負載
6	Rated Frequency 額定頻率	Hz	1000 & 2000	
7	Operating Temp. 操作溫度	$^{\circ}\text{C}$	-40 ~ +85	
8	Storage Temp. 儲存溫度	$^{\circ}\text{C}$	-40 ~ +85	
9	Dimension 尺寸	mm	ϕ 24.5 $\times$ H12.5	See attached drawing. 請參照外觀尺寸圖
10	Weight 重量	gram	8	
11	Material 材質		PBT(Black)	
12	Terminal 端子		Pin type (鍍全錫/Plating Sn)	See attached drawing. 請參照外觀尺寸圖
13	Environmental Protection Regulation 環保法規		RoHS	
14	Storage life 保存期限	month	6	6 months preservation at room temp.(25 $\pm$ 3 $^{\circ}\text{C}$), Humidity40% 在室溫下 25 $\pm$ 3 $^{\circ}\text{C}$, 濕度 40%以下可保存 6 個月.

C. TYPICAL FREQUENCY RESPONSE CURVE 頻率響應曲線

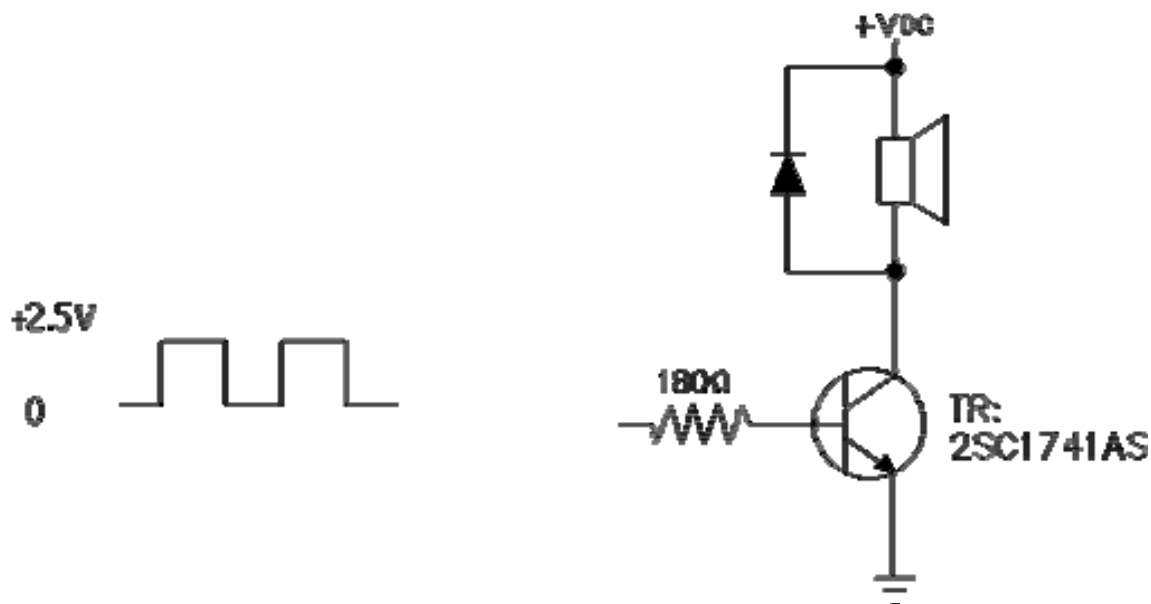


D. APPEARANCE DRAWING 外觀尺寸圖



Tol: ± 0.5
Unit: mm

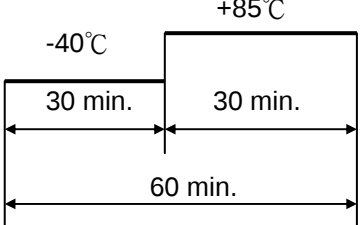
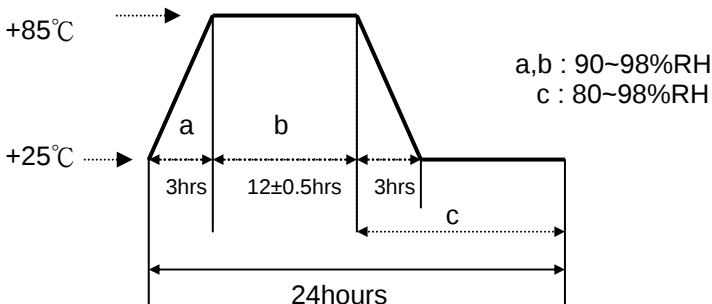
E. MEASUREMENT METHOD 測量方式



F. MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test condition	Evaluation standard
1	Solderability 焊錫附著性	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm5^{\circ}\text{C}$ for 3 ± 1 seconds. 端子部份浸入松香溶液 5 秒後,再浸入 $+270\pm5^{\circ}\text{C}$ 熔融焊錫槽中 3 ± 1 秒.	90% min. lead terminals shall be wet with solder. (Except the edge of terminal) 浸入端子部份附著焊錫 90%以上.(末端斷面不算)
2	Soldering Heat Resistance 焊錫耐熱性	Lead terminal are immersed up to 1.5mm from sounder's body in solder bath of $+260\pm5^{\circ}\text{C}$ for 3 ± 1 seconds. 距離端子根部 1.5mm 的位置,浸入 $+260\pm5^{\circ}\text{C}$ 的焊錫槽 3 ± 1 秒.	No interference in operation 操作上無任何不良
3	Terminal Mechanical Strength 端子強度	The force 10 seconds of 9.8N (1.0kg) is applied to each terminal in axial direction. 各端子的軸方向施以 9.8N (1.0kg)的力量 10 秒.	No damage and cutting off 端子不鬆動,不脫落
4	Vibration 振動測試	Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours. 振動週波數 10~55HZ、全振幅 1.5mm 於 X.Y.Z 3 個方向,各 2 小時.	After the test the part shall meet specifications with-out any damage in appearance and the SPL should be in $\pm 10\text{dBA}$ compared with initial one.
5	Drop test 落下測試	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times). 單體從 75 公分高處, X.Y.Z.3 個方向,各 3 回,落於 40mm 厚木板上.	經測試後,單體除音壓外,外觀及電氣特性須符合規格. 輸出音壓變化量須 $\pm 10\text{dBA}$ 內.

G. ENVIRONMENT TEST 環境測試

No.	Item	Test condition	Evaluation standard
1	High temp. test 高溫測試	After being placed in a chamber at +85°C for 96 hours. 置於+85°C環境中 96 小時	After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25°C. the SPL should be in $\pm 10\text{dBA}$ compared with initial one. 經測試後，靜置於+25°C（室溫）環境中 4 小時後，單體除音壓外，外觀及電氣特性須符合規格。輸出音壓變化量須在$\pm 10\text{dBA}$內。
2	Low temp. test 低溫測試	After being placed in a chamber at -40°C for 96 hours. 置於-40°C環境中 96 小時	
3	Thermal Shock 熱衝擊試驗	The part shall be subjected to 10 cycles. One cycle shall consist of; 對單體施以熱衝擊試驗 10 次循環,其循環內容如圖示 	
4	Temp./ Humidity Cycle 溫度/溼度循環測試	The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of; 單體承受溫度/溼度循環測試 10 次,其循環內容如圖示 	

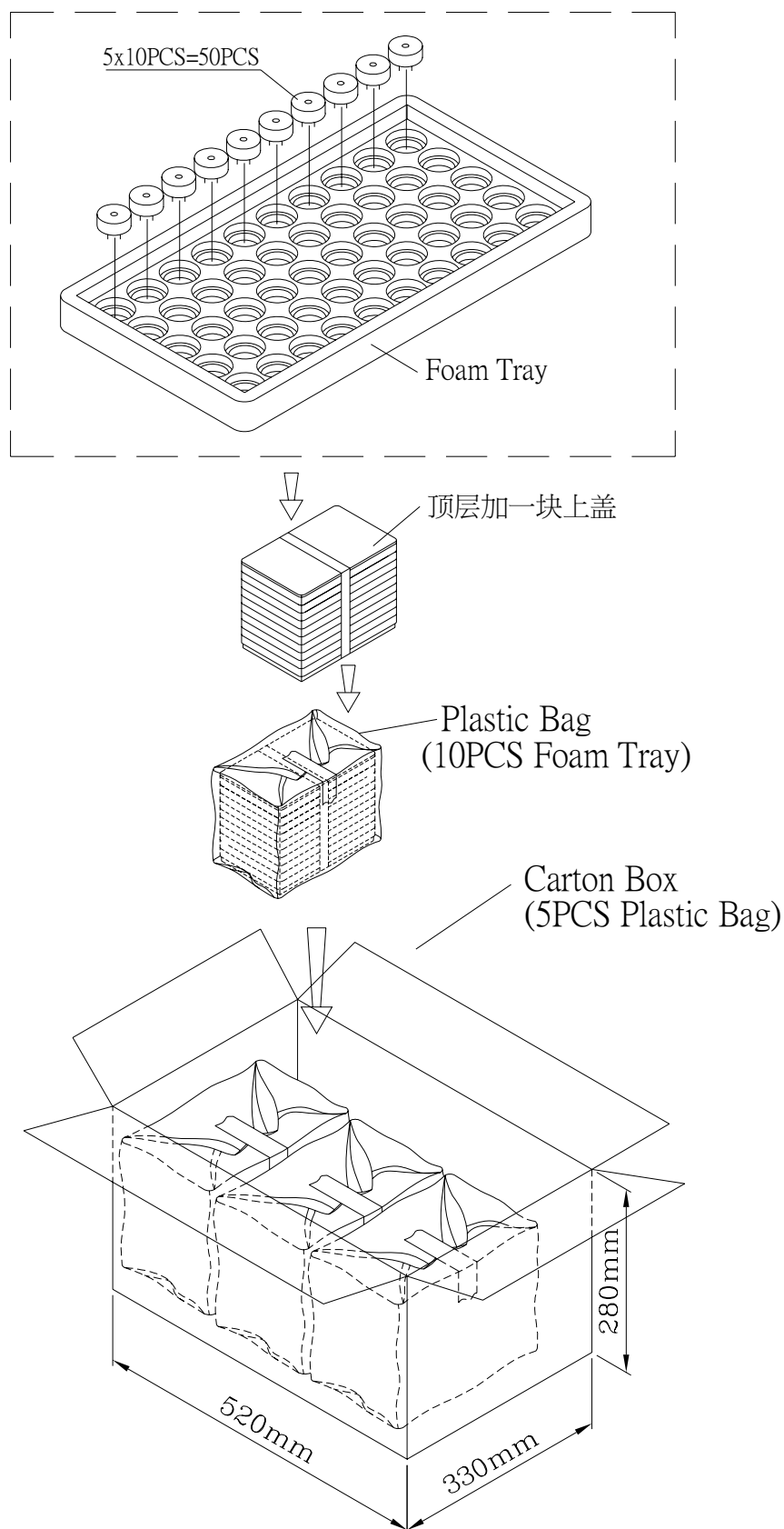
H. RELIABILITY TEST 信賴性測試

No.	Item	Test condition	Evaluation standard
1	Operating life test 壽命測試	1.Continuous life test 高溫壽命測試(連續) The part shall be subjected to 72 hours at +70°C with 12V, 1000Hz applied. 在+70°C環境下,輸入 12V,1000Hz 連續操作 72 小時. 2.Intermittent life test 室溫壽命測試(間歇) A duty cycle of 1 minute on, 1 minutes off, a minimum of 8000 times at room temp.(+25$\pm$10°C) with 12V,1000Hz applied. 在室溫下(+25$\pm$10°C),輸入 12V,1000Hz 通電 1 分鐘/斷電 1 分鐘,測試 8000 次循環.	After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25°C. the SPL should be in $\pm 10\text{dBA}$ compared with initial one. 經測試後，靜置於+25°C（室溫）環境中 4 小時後，單體除音壓外，外觀及電氣特性須符合規格。輸出音壓變化量須在$\pm 10\text{dBA}$內。

TEST CONDITION.

Standard Test Condition	:	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般測試條件	:	a) 溫度 : +5 ~ +35°C	b) 濕度 : 45-85%	c) 氣壓 : 860-1060mbar
Judgement Test Condition	:	a) Temperature : +25 $\pm$ 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
爭議時測試條件	:	a) 溫度 : +25 $\pm$ 2°C	b) 濕度 : 60-70%	c) 氣壓 : 860-1060mb

I. PACKING STANDARD 包裝規格



Foam Tray	315mmx170mmx28mm	1x50PCS=50PCS
Plastic Bag		10x50PCS=500PCS
Carton Box	520mmx330mmx280mm	3x500PCS=1500PCS