

# SPECIFICATION FOR APPROVAL

## 承 認 書

Description : **Magnetic Buzzer**

Kingstate Part No. : **KXG1606**

Customer's Model No. :

Specification No. : **TKS-7086**

Number Of The Edition : **1.3**

CUSTOMER'S APPROVED SIGNATURE		

志豐電子股份有限公司 KINGSTATE ELECTRONICS CORP.

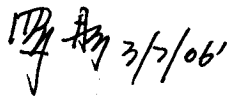
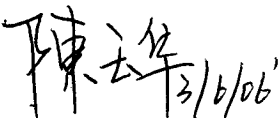


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Approved by	Checked by	Issued by
 3/7/06'	 3/6/06'	<b>Shen</b> <b>3/04/06'</b>

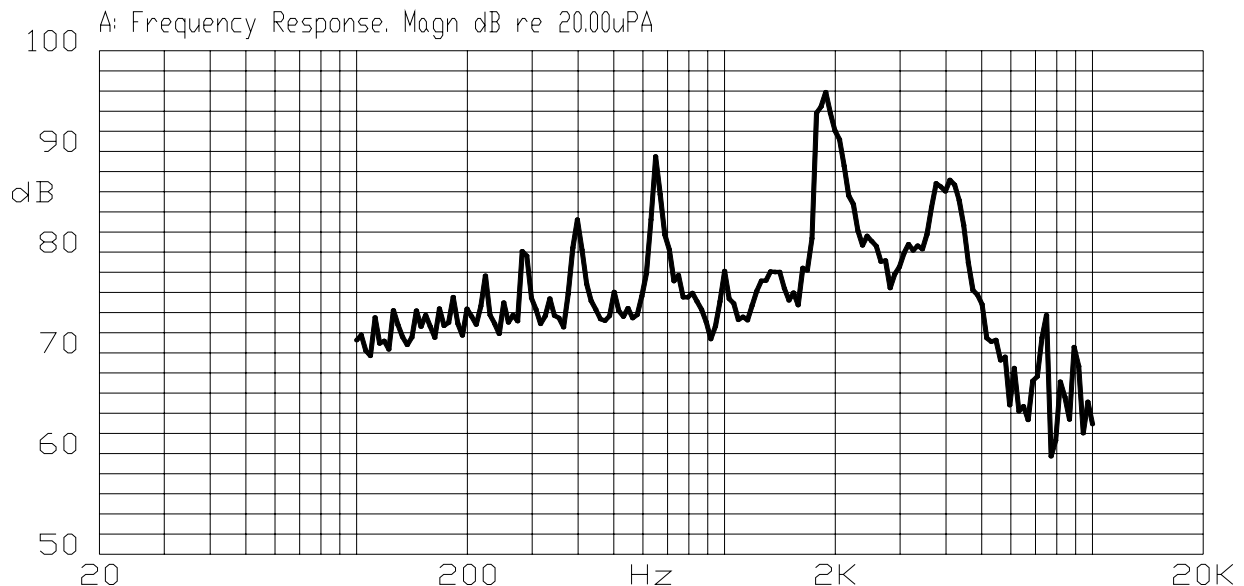
## A. SCOPE 範疇

This specification applies magnetic buzzer, **KXG1606**  
 此規格書適用於電磁式蜂鳴器, **KXG1606**

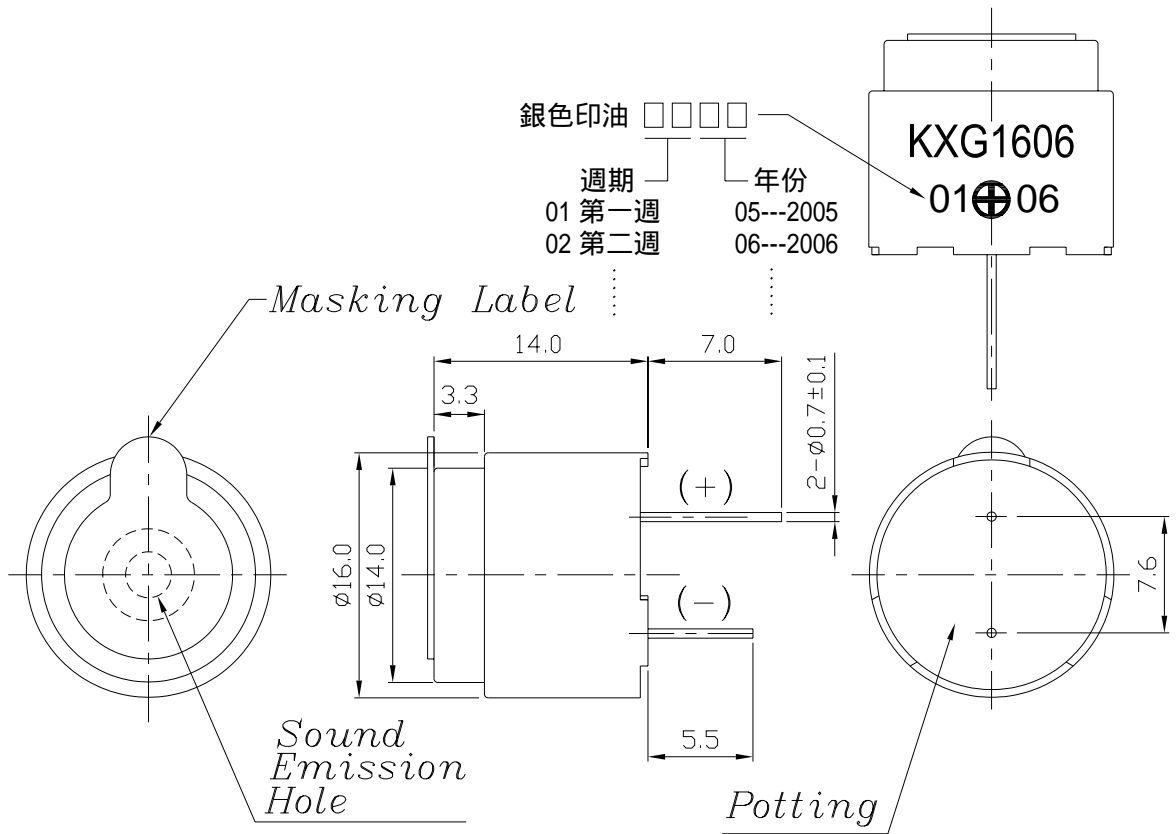
## B. SPECIFICATION 規格

No.	Item	Unit	Specification	Condition
1	Rated Voltage 額定電壓	Vo-p	6.0	
2	Operating Volt. 操作電壓	Vo-p	3.0~12.0	
3	Mean Current 平均耗電流	mA	Max. 50	Applying rated voltage, 2048Hz square wave, 1/2duty 施以額定電壓, 2048Hz, 方波, 50% 負載
4	Coil Resistance 直流阻抗		50.0 ± 7.5	
5	Sound Output 輸出音壓	dBA	Min. 85 (Typical 92)	Distance at 10cm(A-weight free air). Applying rated voltage 2048Hz, square wave, 1/2duty 在自由音場 10 公分處, 施以額定電壓, 2048Hz, 方波, 50% 負載
6	Rated Frequency 額定頻率	Hz	2048	
7	Operating Temp. 操作溫度		-20 ~+60	
8	Storage Temp. 儲存溫度		-30 ~+70	
9	Dimension 尺寸	mm	16.0 × H14.0	See attached drawing. 請參照外觀尺寸圖
10	Weight 重量	gram	4.60	
11	Material 材質		PPO (Black)	
12	Terminal 端子		Pin type (鍍化金/Plating Au)	See attached drawing. 請參照外觀尺寸圖
13	Environmental Protection Regulation 環保法規		RoHS	

## C. TYPICAL FREQUENCY RESPONSE CURVE 頻率響應曲線

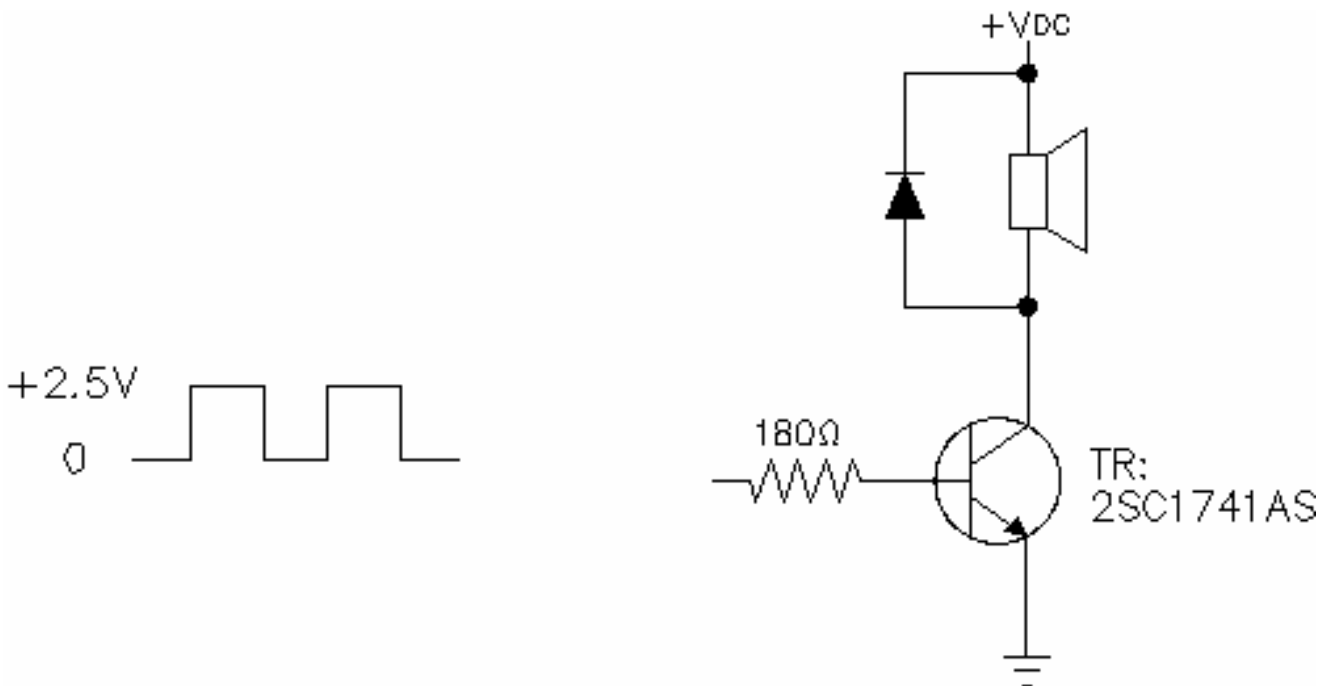


**D. APPEARANCE DRAWING 外觀尺寸圖**



**Tol:  $\pm 0.5$**   
**Unit: mm**

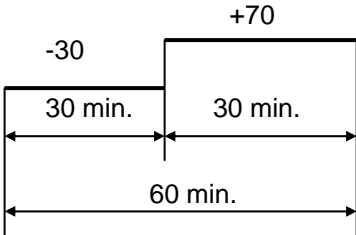
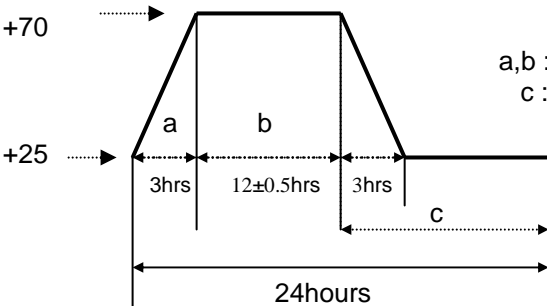
**E. MEASUREMENT METHOD 測量方式**



## 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 $+270\pm 5$ for $3\pm 1$ seconds. 端子部份浸入松香溶液 5 秒後,再浸入 $+270\pm 5$ 溶融焊錫槽中 $3\pm 1$ 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 $+260\pm 5$ for $3\pm 1$ seconds. 距離端子根部 1.5mm 的位置,浸入 $+260\pm 5$ 的焊錫槽 $3\pm 1$ 秒.	No interference in operation 操作無任何不良
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 $\pm 10$ 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 $\pm 10$ 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 $+70$ for 96 hours. 置於 $+70$ 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 $+25$ . the SPL should be in $\pm 10$ dBA compared with initial one. 經測試後, 靜置於 $+25$ (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 $\pm 10$ dBA 內.
2	Low temp. test 低溫測試	After being placed in a chamber at $-30$ for 96 hours. 置於 $-30$ 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 	

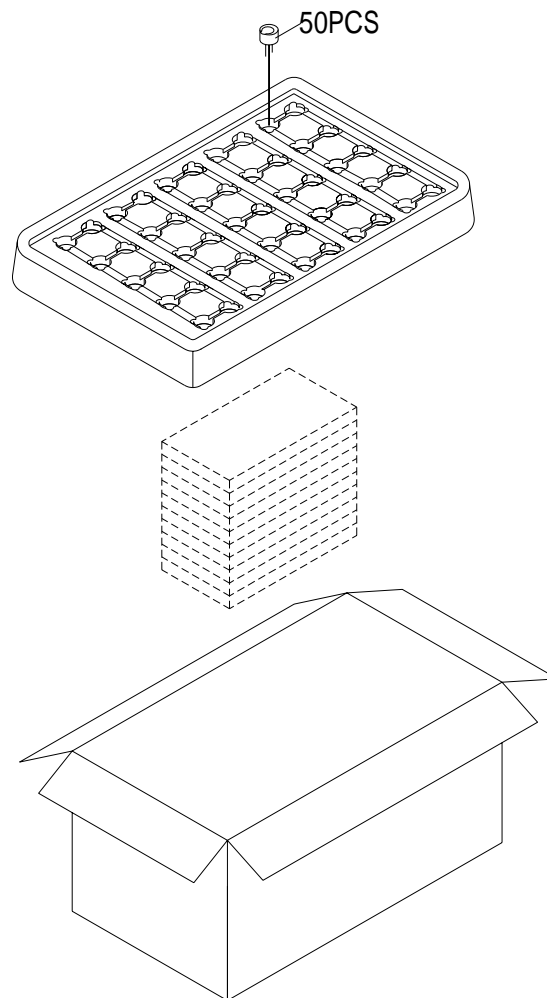
## H. RELIABILITY TEST 信賴性測試

No.	Item	Test condition	Evaluation standard
1	Operating life test 壽命測試	<p>1. Continuous life test 高溫壽命測試(連續) The part shall be subjected to 72 hours at +45 with 6V, 2048Hz applied. 在+45 環境下,輸入 6V,2048Hz 連續操作 72 小時.</p> <p>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 10000 times at room temp.( +25±10 ) with 6V,2048Hz applied. 在室溫下(+25±10 ), 輸入 6V,2048Hz 通電 1 分鐘/斷電 1 分鐘,測試 10000 次循環.</p>	<p>After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25 . the SPL should be in ±10dBA compared with initial one. 經測試後,靜置於+25 (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±10dBA 內.</p>

### TEST CONDITION.

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

## I. PACKING STANDARD 包裝規格



吸塑盒	320mmx170mmx28mm	1x50PCS=50PCS
小紙箱	340mmx190mmx310mm	10x50PCS=500PCS
大紙箱	690mmx390mmx350mm	4x500PCS=2000PCS