

SPECIFICATION FOR APPROVAL

承 認 書

Description : Magnetic Buzzer

Kingstate Part No. : KSQGRP/C

Customer's Model No. : _____

Specification No. : TKS-1568

Number Of The Edition : 1.2

CUSTOMER'S APPROVED SIGNATURE

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

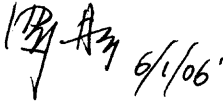
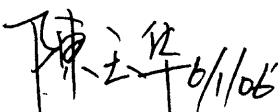


Address: 10F, No. 69-11, Sec. 2, Chung Cheng E. Rd., Tamshui County, Taipei Hsien, Taiwan, R.O.C.

International sales dept.: TEL : 886-2-2809-5651 FAX:886-2-2809-7151

Domestic sales dept.: TEL : 886-2-2809-0668 FAX:886-2-28096748

[http : //www.kingstate.com.tw](http://www.kingstate.com.tw)

Approved by	Checked by	Issued by
 6/1/06	 6/1/06	Shen 5/24/06

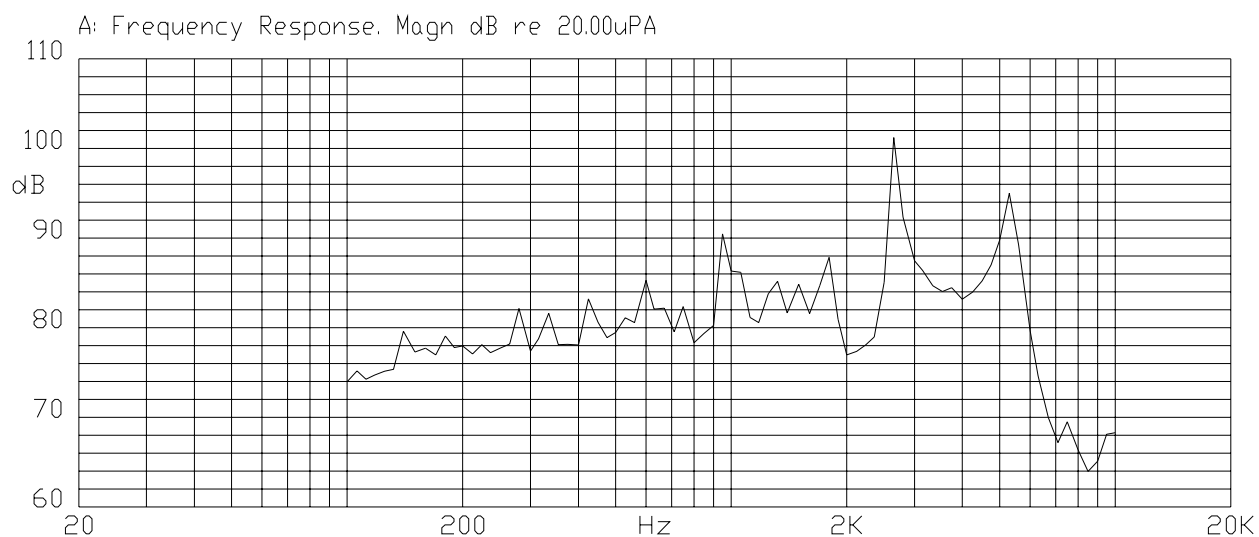
A. SCOPE 範疇

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

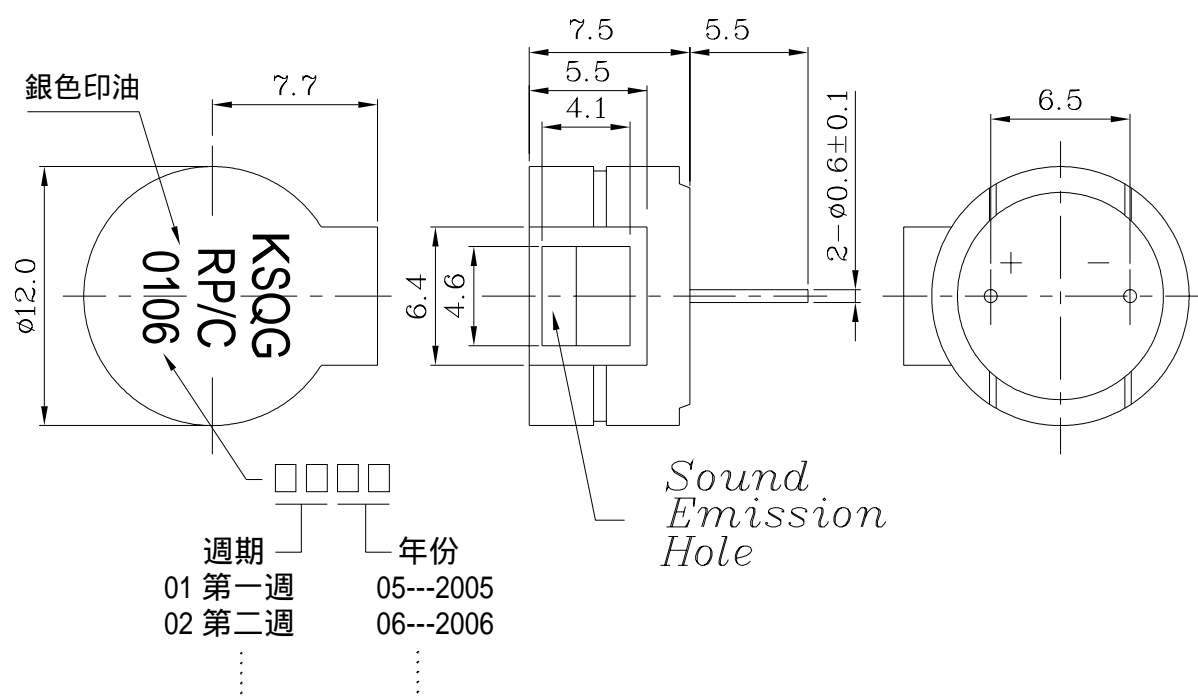
B. SPECIFICATION 規格

No.	Item	Unit	Specification	Condition
1	Rated Voltage 額定電壓	Vo-p	1.5	
2	Operating Volt. 操作電壓	Vo-p	1.0~2.0	
3	Mean Current 平均耗電流	mA	Max. 35	Applying rated voltage, 2048Hz square wave, 1/2 duty 施以額定電壓, 2048Hz, 方波, 50% 負載
4	Coil Resistance 直流阻抗		15.0 ± 2.0	
5	Sound Output 輸出音壓	dBA	Min. 80 (Typical 85)	Distance at 10cm(A-weight). Applying rated voltage 2048Hz, square wave, 1/2 duty 在 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	12.0 × H7.5	See attached drawing. 請參照外觀尺寸圖
10	Weight 重量	gram	2.0	
11	Material 材質		Noryl SE1-J	
12	Terminal 端子		Pin type	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



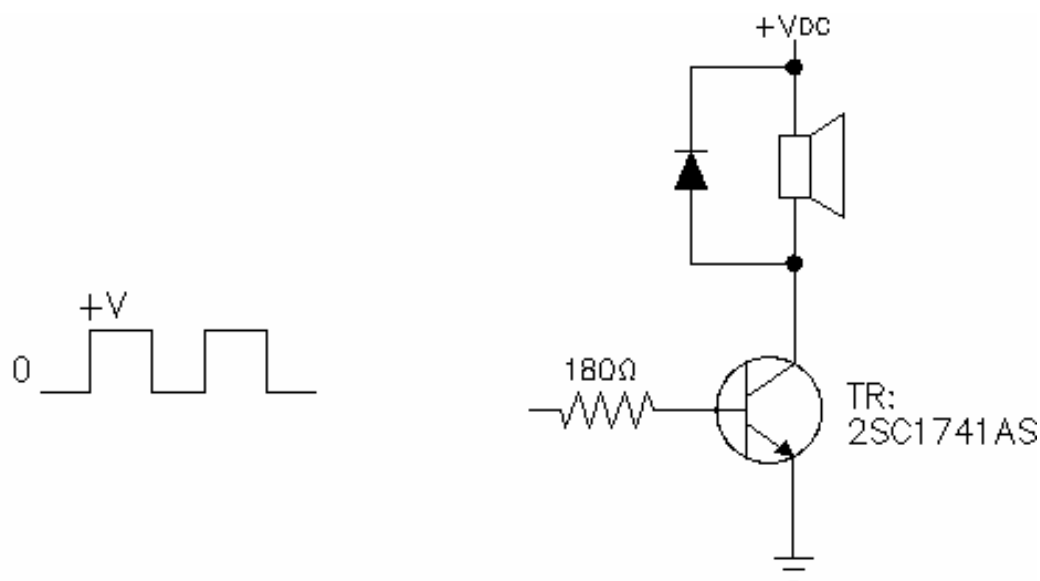
D. APPEARANCE DRAWING 外觀尺寸圖



Tol: ± 0.5

Unit: mm

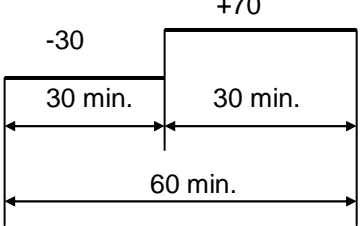
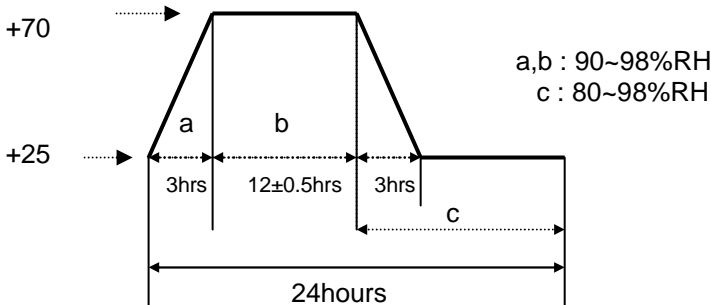
E. MEASUREMENT METHOD 測量方式



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 $+270\pm5$ for 3 ± 1 seconds. 端子部份浸入松香溶液 5 秒後,再浸入 $+270\pm5$ 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 $+260\pm5$ for 3 ± 1 seconds. 距離端子根部 1.5mm 的位置,浸入 $+260\pm5$ 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 is applied to each terminal in axial direction. 各端子的軸方向施以 9.8N 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 ± 10 dB 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. 輸出音壓變化量須在 ± 10 dB 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	<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 $\pm 10\text{dBA}$ compared with initial one.</p> <p>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$\pm 10\text{dBA}$內。</p>
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	<p>The part shall be subjected to 10 cycles. One cycle shall consist of;</p> <p>對單體施以熱衝擊試驗 10 次循環,其循環內容如圖示</p> 	
4	Temp./ Humidity Cycle 溫度/溼度循環測試	<p>The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of;</p> <p>單體承受溫度/溼度循環測試 10 次,其循環內容如圖示</p> 	

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 1.5V, 2048Hz applied. 在+45 環境下,輸入 1.5V, 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 1.5V, 2048Hz applied. 在室溫下(+25± 10), 輸入 1.5V, 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 $\pm 10\text{dBA}$ compared with initial one.</p> <p>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$\pm 10\text{dBA}$內。</p>

TEST CONDITION.

Standard Test Condition : a) Temperature : +5 ~ +35
一般測試條件 : a) 溫度 : +5 ~ +35

Judgement Test Condition : a) Temperature : +25 \pm 2
爭議時測試條件 : a) 溫度 : +25 \pm 2

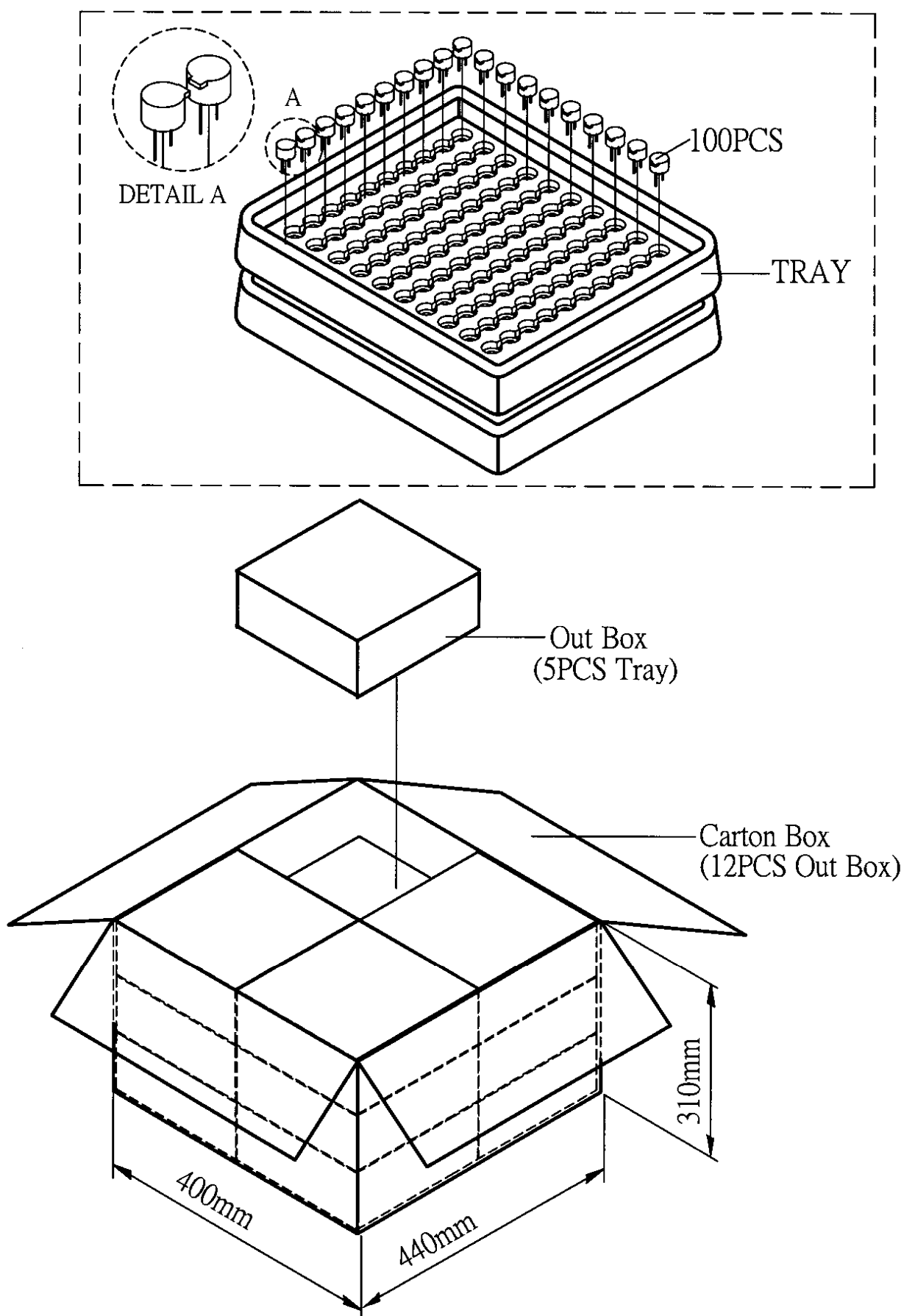
b) Humidity : 45-85%
b) 濕度 : 45-85%

b) Humidity : 60-70%
b) 濕度 : 60-70%

c) Pressure : 860-1060mbar
c) 氣壓 : 860-1060mbar

c) Pressure : 860-1060mbar
c) 氣壓 : 860-1060mbar

I. PACKING STANDARD 包裝規格



Tray	184mmx184mmx23mm	1x100PCS=100PCS
Out Box	200mmx190mmx100mm	5LAYERx100PCS=500PCS
Carton Box	440mmx400mmx310mm	500PCSx12=6000PCS