

SPECIFICATION FOR APPROVAL

承 認 書

Description : Magnetic Buzzer

Kingstate Part No. : KXG1212CL

Customer's Model No. : _____

Specification No. : TKS-7137

Number Of The Edition : 1.2

| CUSTOMER'S APPROVED SIGNATURE | | |
|-------------------------------|--|--|
| | | |

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| Approved by | Checked by | Issued by |
|-------------|-------------|-----------------|
| 明新 3/7/06' | 冯瑞英 3/6/06' | Fei 3/03/06' |

A. SCOPE 範疇

This specification applies magnetic buzzer, **KXG1212CL**

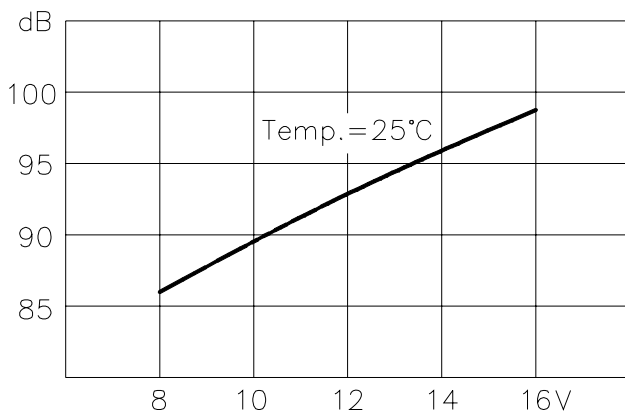
此規格書適用於電磁式蜂鳴器, **KXG1212CL**

B. SPECIFICATION 規格

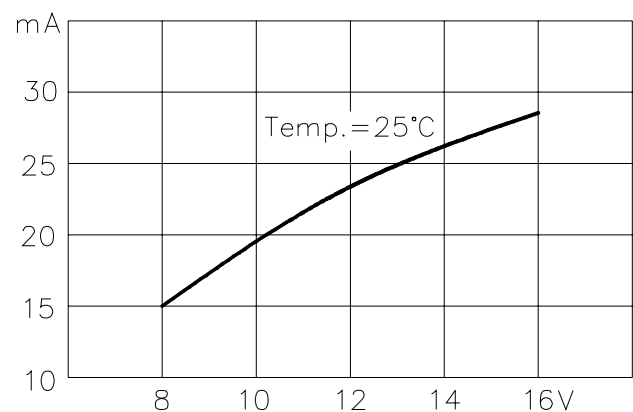
| No. | Item | Unit | Specification | Condition |
|-----|--|-----------------|------------------------------|--|
| 1 | Rated Voltage 額定電壓 | V _{DC} | 12.0 | |
| 2 | Operating Volt. 操作電壓 | V _{DC} | 8.0 ~ 16.0 | |
| 3 | Mean Current 平均耗電流 | mA | Max. 35 | |
| 4 | Sound Output 輸出音壓 | dBA | Min.85 (Typical 94) | Distance at 10cm(A-weight free air). Applying rated voltage . 在自由音場 10 公分處, 施以額定電壓. |
| 5 | Rated Frequency 額定頻率 | Hz | 2300 ± 300 | |
| 6 | Operating Temp. 操作溫度 | °C | -20 ~ + 60 | |
| 7 | Storage Temp. 儲存溫度 | °C | -30 ~ + 70 | |
| 8 | Dimension 尺寸 | mm | φ 12.0 × H 7.5 | See attached drawing. 請參照外觀尺寸圖 |
| 9 | Weight 重量 | gram | 1.4 | |
| 10 | Material 材質 | | PPO (Black) | |
| 11 | 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

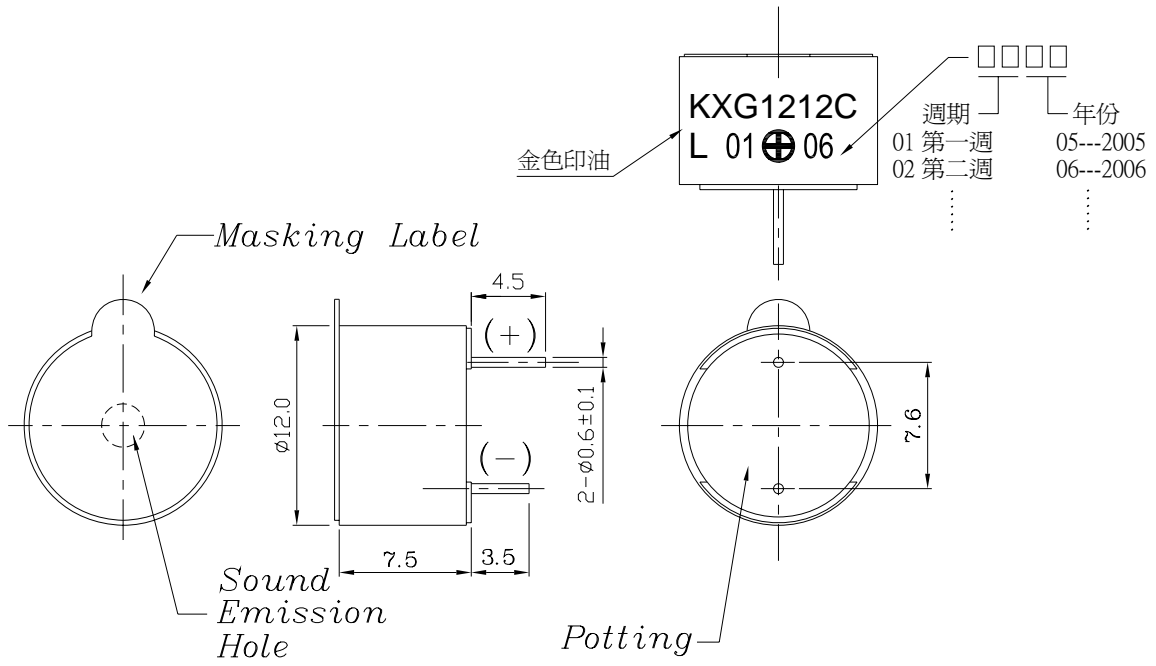
VOLTAGE-SOUND PRESSURE LEVEL



VOLTAGE-CURRENT CONSUMPTION



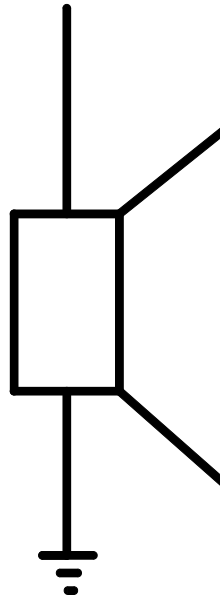
D. APPEARANCE DRAWING 外觀尺寸圖



Tol: ± 0.5
Unit: mm

E. MEASUREMENT METHOD 測量方式

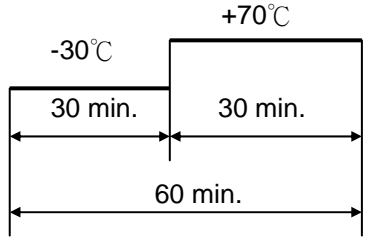
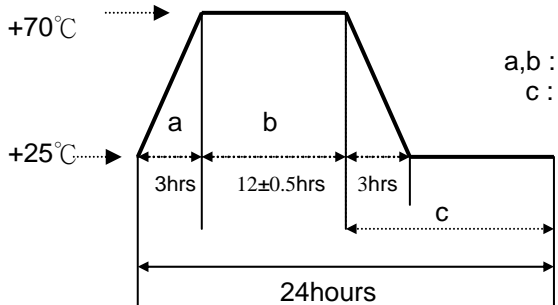
+V DC



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 $+270\pm 5^{\circ}\text{C}$ for 3 ± 1 seconds. 端子部份浸入松香溶液 5 秒後,再浸入 $+270\pm 5^{\circ}\text{C}$ 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 $+260\pm 5^{\circ}\text{C}$ for 3 ± 1 seconds. 距離端子根部 1.5mm 的位置,浸入 $+260\pm 5^{\circ}\text{C}$ 的焊錫槽 3 ± 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 $\pm 10\text{dBA}$ 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 $+70^{\circ}\text{C}$ for 96 hours. 置於 $+70^{\circ}\text{C}$ 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 $+25^{\circ}\text{C}$. the SPL should be in $\pm 10\text{dBA}$ compared with initial one. 經測試後,靜置於 $+25^{\circ}\text{C}$ (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 -30°C for 96 hours. 置於 -30°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 | <p>1. Continuous life test 高溫壽命測試(連續) The part shall be subjected to 72 hours at +45°C with 12VDC applied. 在+45°C環境下, 輸入 12VDC, 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°C) with 12VDC applied . 在室溫下(+25±10°C), 輸入 12VDC, 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°C . the SPL should be in ±10dBA 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±10dBA 內.</p> |

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 ± 2°C | b) Humidity : 60-70% | c) Pressure : 860-1060mbar |
| 爭議時測試條件 | : | a) 溫度 : +25 ± 2°C | b) 濕度 : 60-70% | c) 氣壓 : 860-1060mbar |

I. PACKING STANDARD 包裝規格

