# SPECIFICATION FOR APPROVAL

承 認

Description	:	Piezo Audio Indicator	
Kingstate Part No.	:	KPEG272A	
Customer's Model No.	:		
Specification No.	:	PKD-7404	
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

Approved by	Checke	ed by	Issued by
19 A3 3/10/05"	1到纪山	1/20/03	Fei 9/20/05'

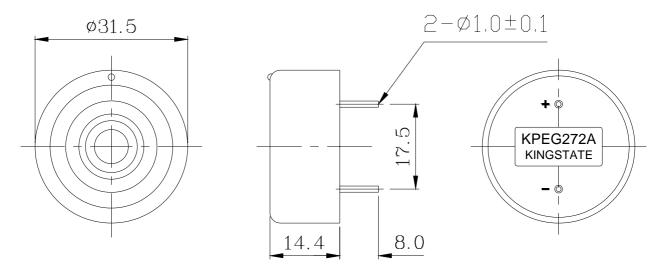
### A. SCOPE 範疇

This specification applies piezo audio indicator, **KPEG272A** 此規格書適用於壓電式蜂鳴器, **KPEG272A** 

## B. SPECIFICATION 規格

No.	Item	Unit	Specification	Condition
1	Resonant frequency 共振頻率	KHz	3.7 ± 0.5	
2	Operating Volt. range 操作電壓範圍	VDC	3~20	
3	Current consumption 消耗電流	mA	MAX 10	at 12VDC
4	Sound pressure level 輸出音壓	dB	MIN 95	at 30cm/12VDC
5	Rated Voltage 額定電壓	VDC	12	
6	Tone 聲音		Continuous 直音	at 12VDC
7	Operating temp. 操作温度		-30 ~ +85	
8	Storage temp. 儲存溫度		-40 ~ +95	
9	Dimension 尺寸	mm	31.5 x H14.4	See appearance drawing 請參照外觀尺寸圖
10	Weight (MAX) 重量	gram	7.0	
11	Material 材質		ABS UL-94 1/16" HB HIGH HEAT ( BLACK )	
12	Teminal 端 <del>了</del>		Pin type (鍍全錫/Plating Sn)	See appearance 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±3), Humidity40% 在室溫下25±3,濕度40%以下可保存6個月.

# C. APPEARANCE DRAWING 外觀尺寸圖

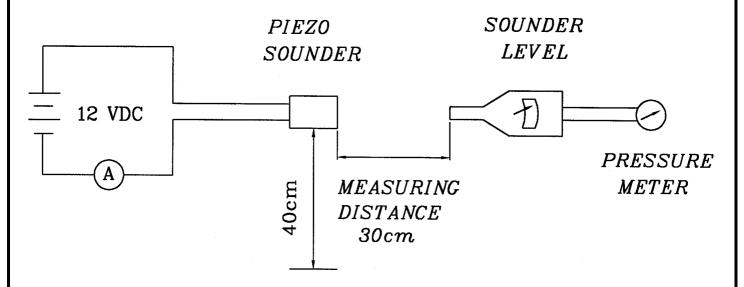


Tol: ± 0.5 Unit: mm

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## D. MEASURING METHOD 測量方法

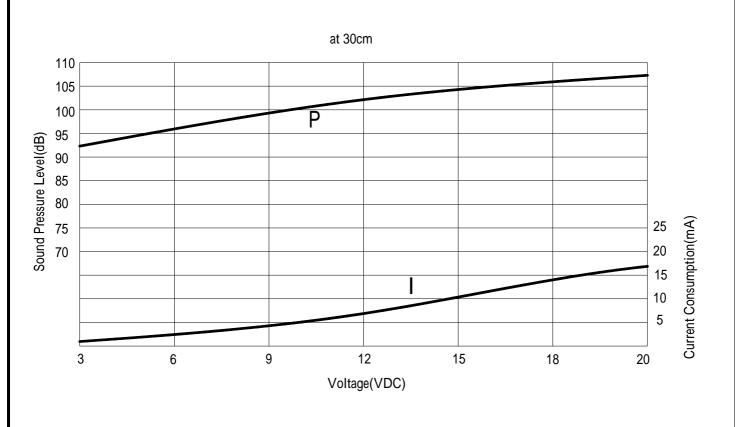
S.P.L. Measuring Circuit 音壓測試接線圖



Mic: RION S.P.L meter UC30 or equivalent

Mic: RION 噪音計 UC30 或同等品

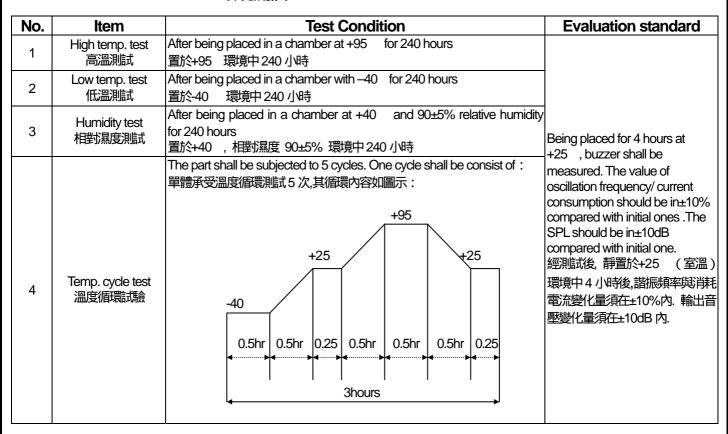
# E. VOLTAGE: SOUND PRESSURE LEVEL / VOLTAGE: CURRENT CONSUMPTION CHARACTERISTICS 電壓與音壓/電壓與耗電流之特性



### F. MECHANICAL CHARACTERISTICS 機械特性

No.	ltem	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±5 for 3±1 seconds. 端子部份浸入松香溶液 5 秒後,再浸入+270±5 溶融學場構中 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(末端繼面不算)
2	Soldering Heat Resistance 焊錫而揀州生	Lead terminal are immersed up to 1.5mm from sounder's body in soilder bath of +300±5 for 3±0.5 seconds or +260±5 for 10±1 seconds. 距離端子根部 1.5mm 的位置,浸入+300±5 的焊錫槽 3±0.5 秒,或+260±5 的焊錫槽 10±1 秒.	No interference in operation 操作上無任何不良
3		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 振動症球檢	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. 振動過波數10 55HZ、全振幅1.5mm於X.Y.Z3個方向,各2小時.	frequency/ current consumption should be in 10% compared with initial ones .The SPL should be
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.	in ± 10dB compared with initial one. 諧振頻率與消耗電流變化量須在 ±10%內. 輸出音壓變化量須在 ±10dB 內.

### G. ENVIRONMENT TEST 環境測試



### 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) 48 hours continuous operation at +70 with rated voltage applied. 在+70 環境下,以額定電壓連續操作 48 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 5000 times at room temp.(+25±2 ) and rated voltage applied. 在室溫下(+25±2 ),以額定電壓操作,通電 1 分鐘/斷電 1 分鐘,測試 5000 次循環.	Being placed for 4 hours at +25 , buzzer shall be measured. The value of oscillation frequency/ current consumption should be in ±10% compared with initial ones . The SPL should be in ±10dB compared with initial one. 經測試後,靜置於+25 (室溫)環境中 4 小時後,諧辰頻率與消耗電流變化量須在±10%內,輸出音壓變化量須在±10dB內.

#### **TEST CONDITION.**

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

 一般則試條件
 : 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

 事議時測試條件
 : a) 溫度: +25 ± 2
 b) 濕度: 60-70%
 c) 氣壓: 860-1060mbar

### I. PACKING STANDARD 包裝規格

