EN: This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

SPECIFICATION FOR APPROVAL

承　　認　　書

Description	:	**Piezo Audio Indicator**
Kingstate Part No.	:	**KPEG270H**
Customer's Model No.	:	
Specification No.	:	**PKD-7671**
Number Of The Edition	:	**1.1**

CUSTOMER'S APPROVED SIGNATURE		

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

KINGSTATE

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	Checked by	Issued by
3/29/06'	2006.3.28	Fei 3/27/06'

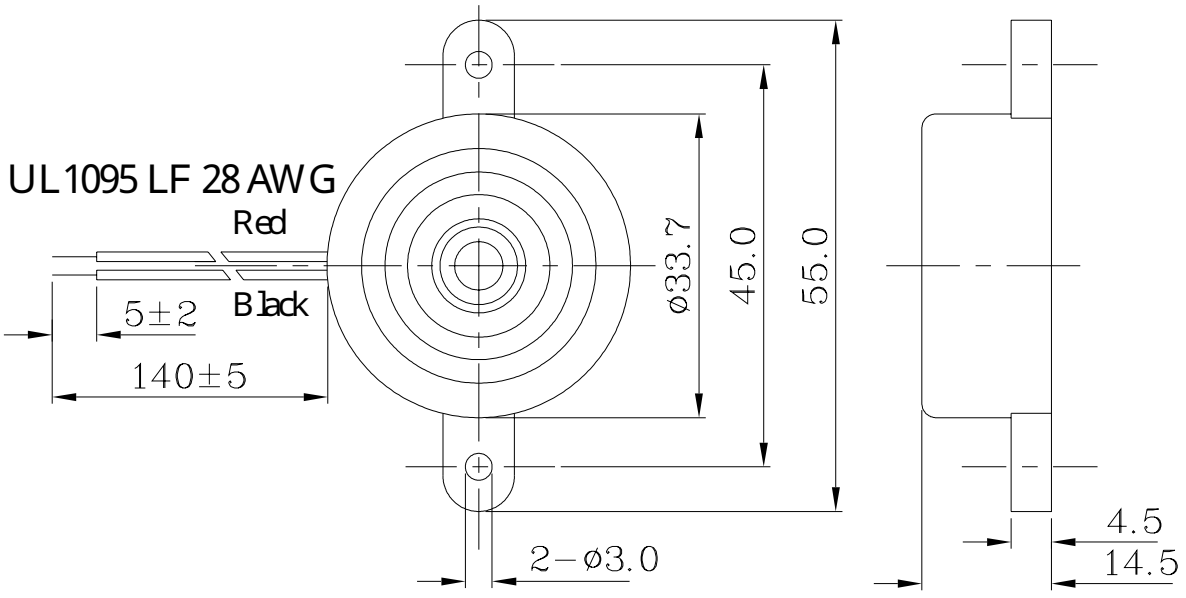
A. SCOPE 範疇

This specification applies piezo audio indicator, **KPEG270H**
此規格書適用於壓電式蜂鳴器 **KPEG270H**

B. SPECIFICATION 規格

No.	Item	Unit	Specification	Condition
1	Operating Frequency 操作頻率	KHz	3.5 ± 0.5	
2	Operating Volt. range 操作電壓範圍	VDC	8 ~ 18	
3	Current consumption 消耗電流	mA	MAX 12	at 12VDC
4	Sound pressure level 輸出音壓	dB	MIN 96	at 30 cm/12VDC
5	Rated Voltage 額定電壓	VDC	12	
6	Tone 聲音		Continuous 直音	
7	Operating temp. 操作溫度	□	-30 ~ + 85	
8	Storage temp. 儲存溫度	□	-40 ~ + 95	
9	Dimension 尺寸	mm	□33.7 x H14.5	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	Terminal 端子		Wire type	See appearance drawing 請參照外觀尺寸圖
13	Environmental Protection Regulation 環保法規		RoHS	

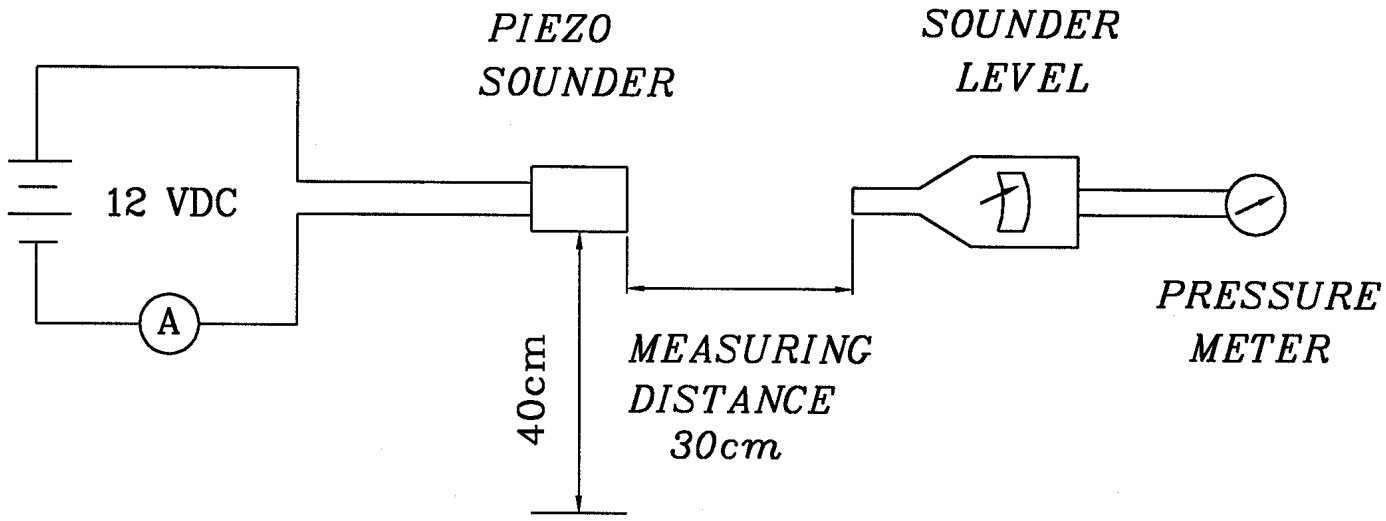
C. APPEARANCE DRAWING 外觀尺寸圖



Tol: ± 0.5
Unit: mm

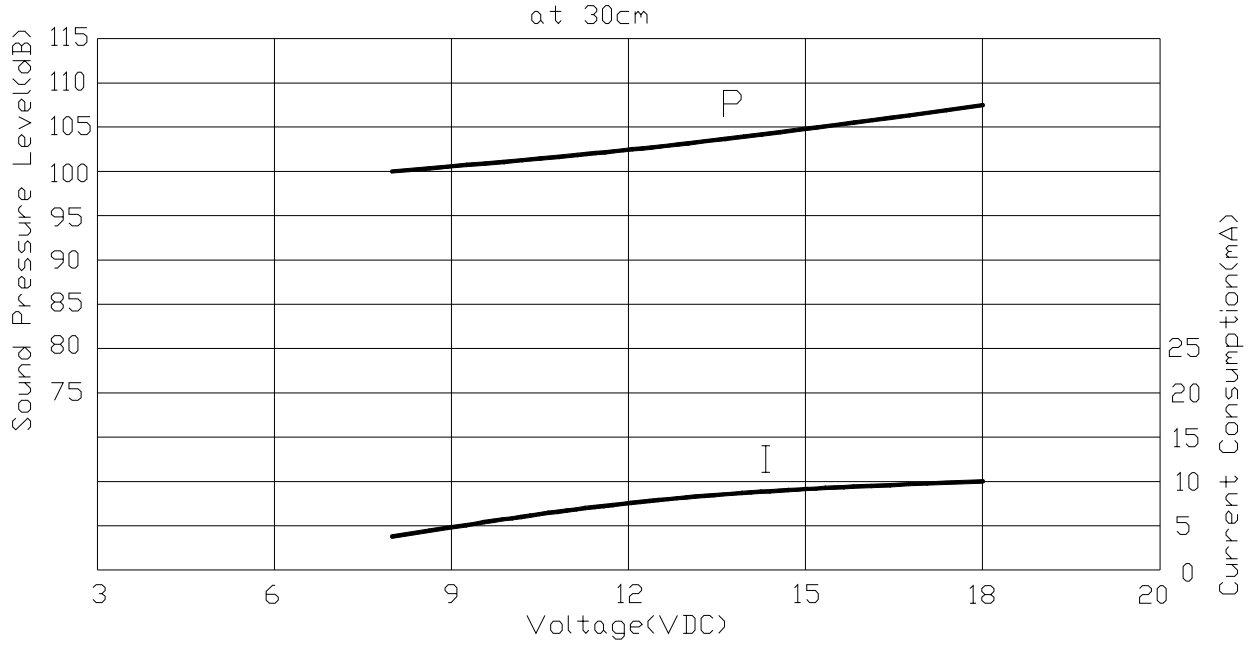
D. MEASURING METHOD 測量方法

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
S.G：Hewlett Packard 33120A Function Generator or equivalent
S.G：Hewlett Packard 33120A 函數信號產生器或同等品

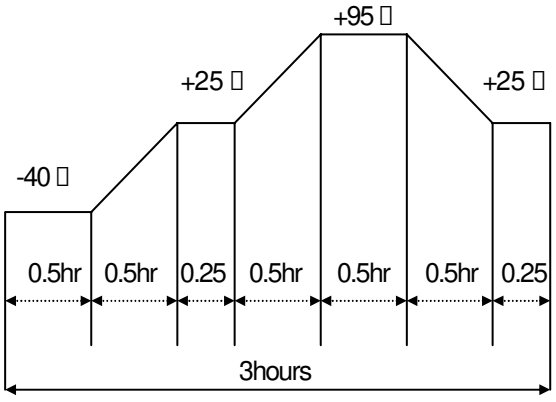
E. VOLTAGE: SOUND PRESSURE LEVEL / VOLTAGE: CURRENT CONSUMPTION CHARACTERISTICS 電壓與音壓/電壓與耗電流之特性



F. MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test Condition	Evaluation standard
1	Solderability 焊錫附著性 (Connector excepted) 端子類不適用此項	Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of +270±5 □ for 3±0.5 seconds. 裸線部份浸入松香溶液 5 秒後,再浸入+270±5 □ 溶融焊錫槽 3±0.5 秒.	90% min. stripped wires shall be wet with solder.(Except the edge of terminal) 浸入裸線部份附著焊錫 90%以上.(末端斷面不算)
2	Lead Wire Pull Strength 線材拉力	The pull force shall be applied to double lead wire： Horizontal 3.0N(0.306kg) for 30 seconds. Vertical 2.0N(0.204kg) for 30 seconds. 雙線材水平方向施以 3.0N(0.306kg) 的力量，垂直方向施以 2.0N(0.204kg)的力量,各 30 秒	No damage and cutting off. 線材不鬆動,不脫落.
3	Vibration 振動試驗	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.	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. 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.
4	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.	

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 +95 □ for 240 hours 置於+95 □ 環境中 240 小時	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.
2	Low temp. test 低溫測試	After being placed in a chamber at –40 □ for 240 hours 置於-40 □ 環境中 240 小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at +40 □ and 90±5% relative humidity for 240 hours 置於+40 □, 相對濕度 90±5% 環境中 240 小時	
4	Temp. cycle test 溫度循環試驗	The part shall be subjected to 5 cycles. One cycle shall be consist of： 單體承受溫度循環測試 5 次,其循環內容如圖示：  	

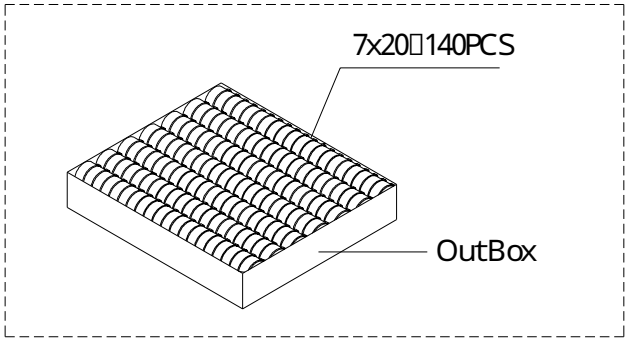
H. RELIABILITY TEST 信賴性測試

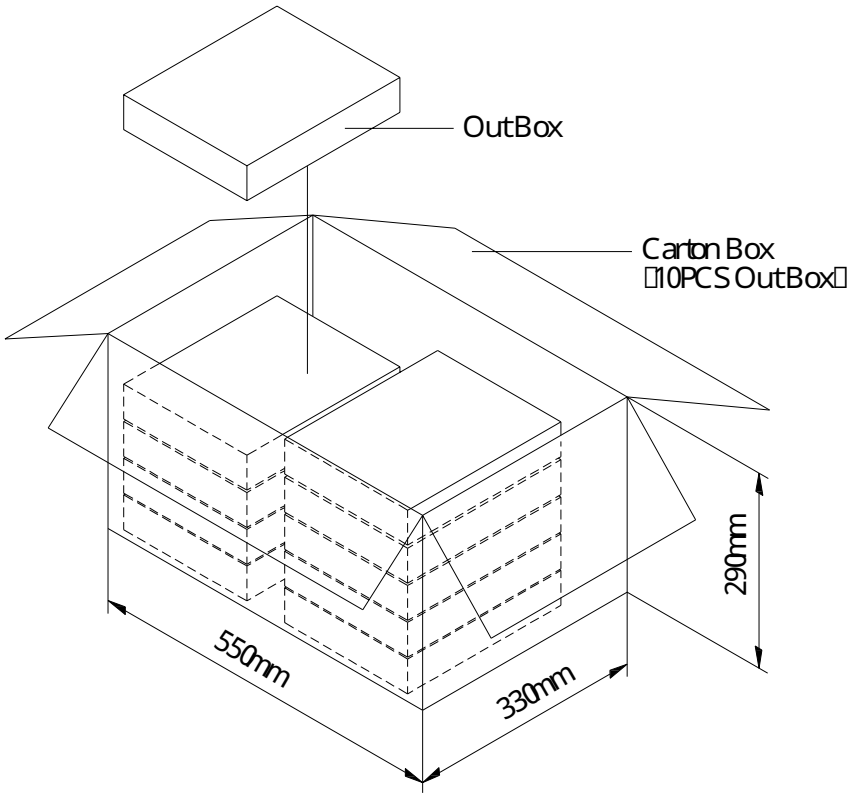
No.	Item	Test condition	Evaluation standard
1	Operating life test 壽命測試	1.Continuous life test 高溫壽命測試(連續) 48 hours continuous operation at +70 □ with rated voltage applied. 在+70 □ 環境下,以額定電壓連續操作 48 小時. 2.Intermittent life test 室溫壽命測試(間歇) A duty cycle of 1 minute on, 1 minutes off, a minimum of 5000 times 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.

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





OutBox	310mmx248mmx49mm	1x140PCS□140PCS
Carton Box	550mmx330mmx290mm	140PCSx10□1□400PCS