

SPECIFICATION FOR APPROVAL

Description : **Piezo Siren**

Customer's Model No. :

Specification No. : **PKD-7462**

Number Of The Edition : **1.3**

CUSTOMER'S APPROVED SIGNATURE		

Approved by	Checked by	Issued by
		陽志明 2019.10.29

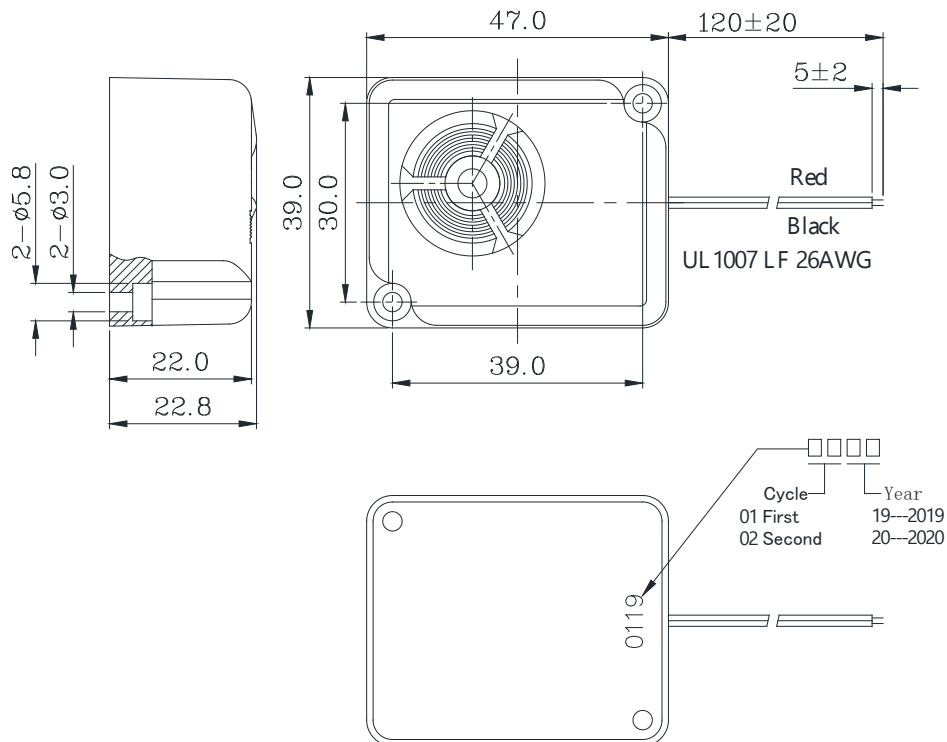
A. SCOPE

This specification applies piezo audio siren, **KPEG1501**

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Operating Frequency	KHz	2~3.5	
2	Operating Volt. range	VDC	6~14	
3	Current consumption	mA	MAX. 70 Typical 50	at 12VDC
4	Sound pressure level	dB	102	at 30 cm/12VDC(MIN.)
5	Rated Voltage	VDC	12	
6	Tone		Siren	
7	Operating temp.	°C	-10 ~ +60	10 minutes
8	Storage temp.	°C	-40 ~ +80	
9	Dimension	mm	L47.0 x W39.0 x H22.8	See appearance drawing
10	Weight (MAX)	gram	27.0	
11	Material		ABS UL-94 1/16"HB HIGH HEAT (BLACK)	
12	Terminal		Wire type	See appearance drawing
13	Environmental Protection Regulation		RoHS2.0	

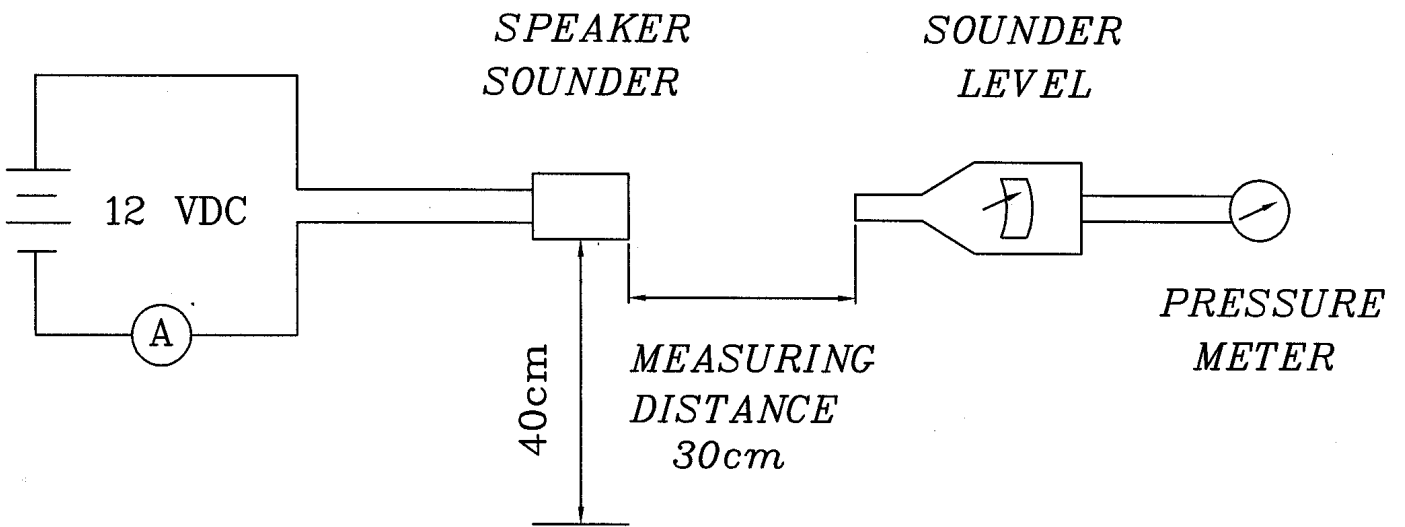
C. APPEARANCE DRAWING



Tol : ± 0.5 Unit: mm

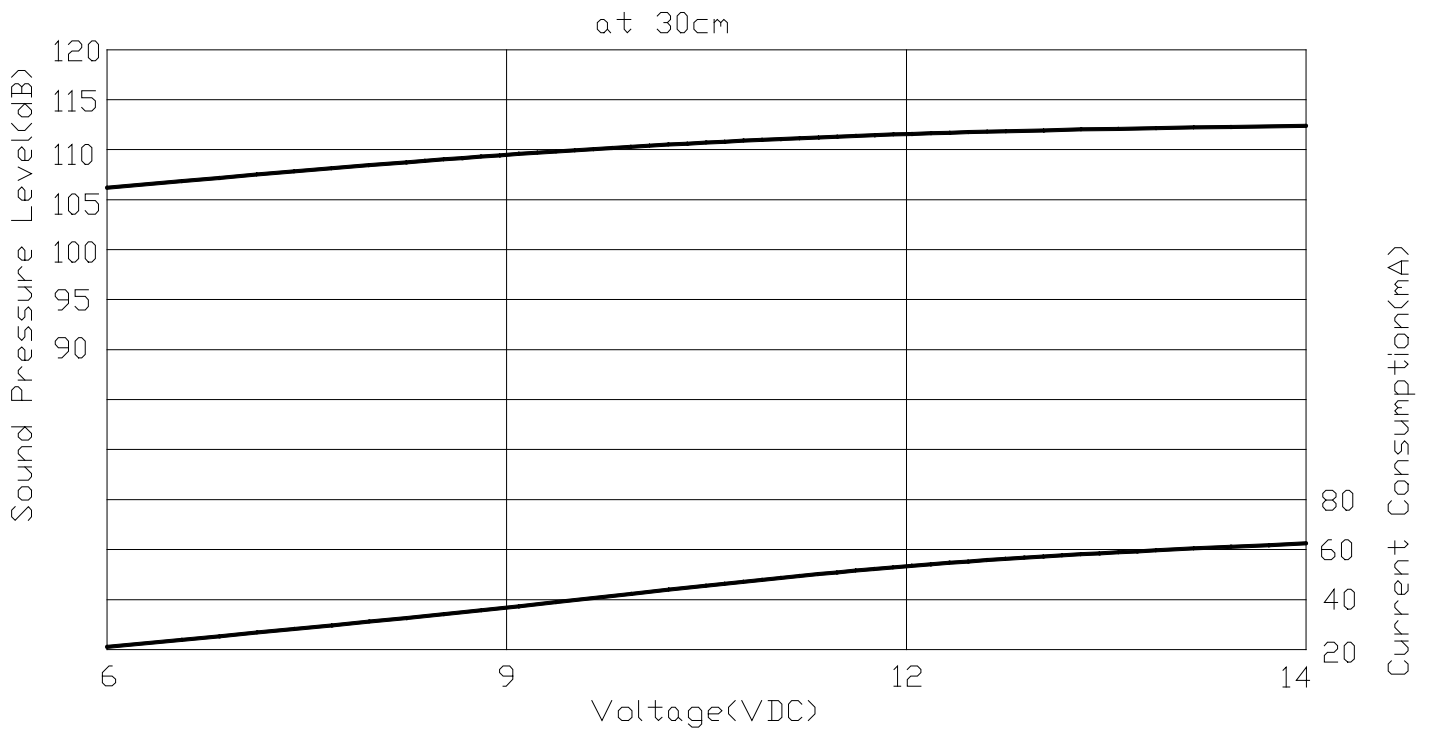
D. MEASURING METHOD

S.P.L. Measuring Circuit



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

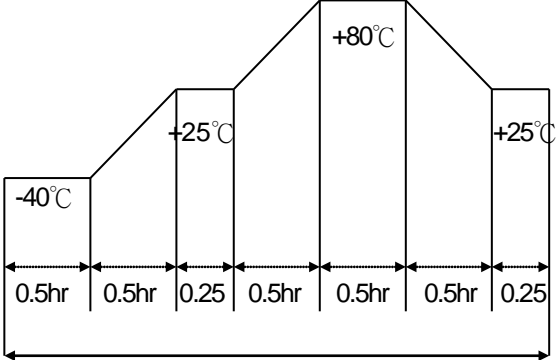
E. VOLTAGE: SOUND PRESSURE LEVEL / VOLTAGE: CURRENT CONSUMPTION CHARACTERISTICS



F. MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solderability (Connector excepted)	Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds.	90% min. stripped wires shall be wet with solder. (Except the edge of terminal)
2	Lead Wire Pull Strength	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.	No damage and cutting off.
3	Vibration	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.	The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones .The SPL should be in $\pm 10\text{dB}$ compared with initial one
4	Drop test	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).	

G. ENVIRONMENT TEST

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $+80^{\circ}\text{C}$ for 240 hours	Being placed for 4 hours at $+25^{\circ}\text{C}$, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones .The SPL should be in $\pm 10\text{dB}$ compared with initial one.
2	Low temp. test	After being placed in a chamber at -40°C for 240 hours	
3	Humidity test	After being placed in a chamber at $+40^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 240 hours	
4	Temp. cycle test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of::</p>  <p style="text-align: center;">3hours</p>	

H. RELIABILITY TEST

No.	Item	Test condition	Evaluation standard
1	Operating life test	1. Continuous life test 10 minutes continuous operation at +45°C with rated voltage applied. 2. Intermittent life test A duty cycle of 1 minute on, 0.5 minutes off, a minimum of 960 times at room temp. (+25±2°C) and rated voltage applied	Being placed for 4 hours at +25°C, 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.

TEST CONDITION.

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

Judgement Test Condition : a) Temperature : +25 ± 2°C b) Humidity : 60-70% c) Pressure : 860-1060mbar

I. PACKING STANDARD

