



Datasheet

RS PRO Piezo Audio Indicator

EN



A. SCOPE

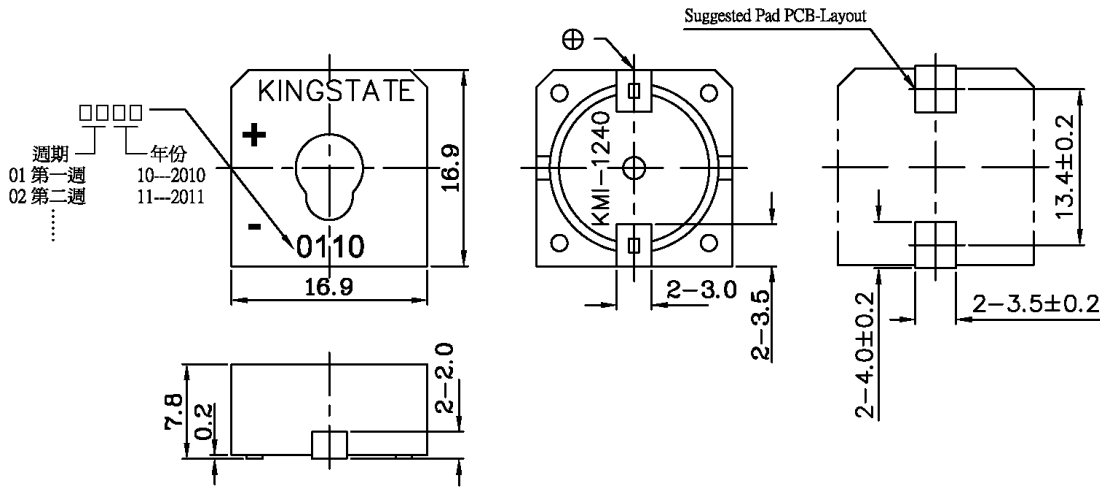
This specification applies piezo audio indicator, 1812655

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Resonant frequency	KHz	4.0 ± 0.2	
2	Operating Volt. range	VDC	3 ~ 16	
3	Current consumption	mA	MAX 18	at 12VDC
4	Sound pressure level	dB	MIN 90	at 10cm/12VDC
5	Rated Voltage	VDC	12	
6	Tone		Continuous	
7	Operating temp.	°C	-30 ~ +70	
8	Storage temp.	°C	-40 ~ +80	
9	Dimension	mm	L16.9 x W16.9 x H7.8	See appearance drawing
10	Weight (MAX)	gram	3.2	
11	Material		PPS UL-94 V-0 (BLACK)	
12	Terminal		SMD type	See appearance drawing
13	Environmental Protection Regulation		ROHS 2.0	



C. APPEARANCE DRAWING

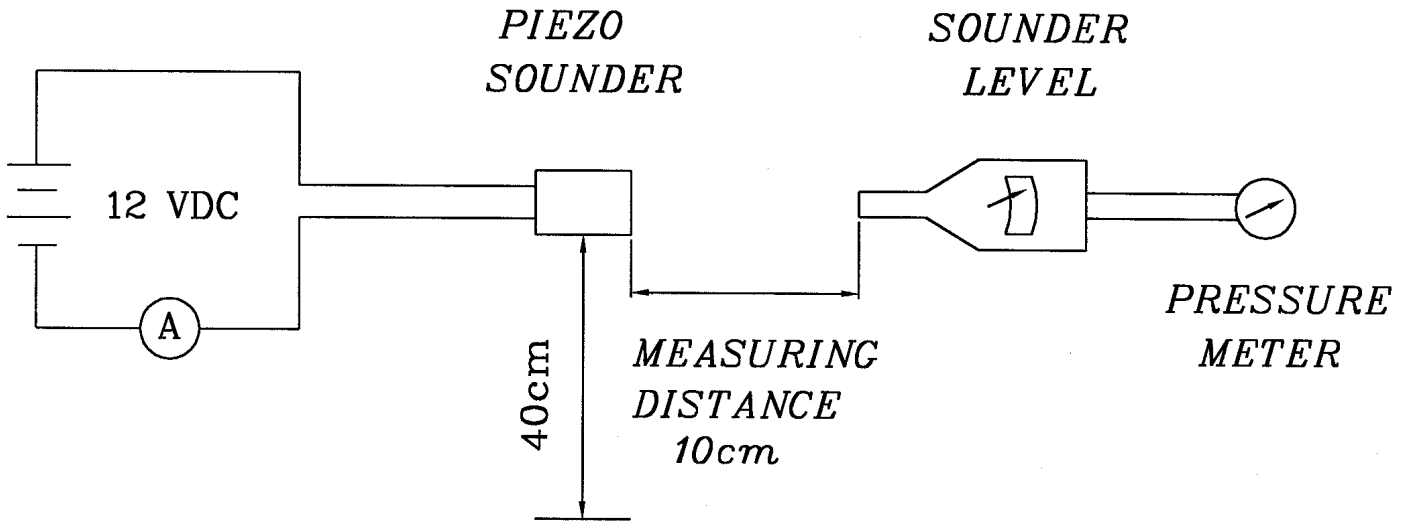


The positive and negative connection of the power supply will burn out the buzzer

Tol : ± 0.5 Unit : mm

D. MEASURING METHOD

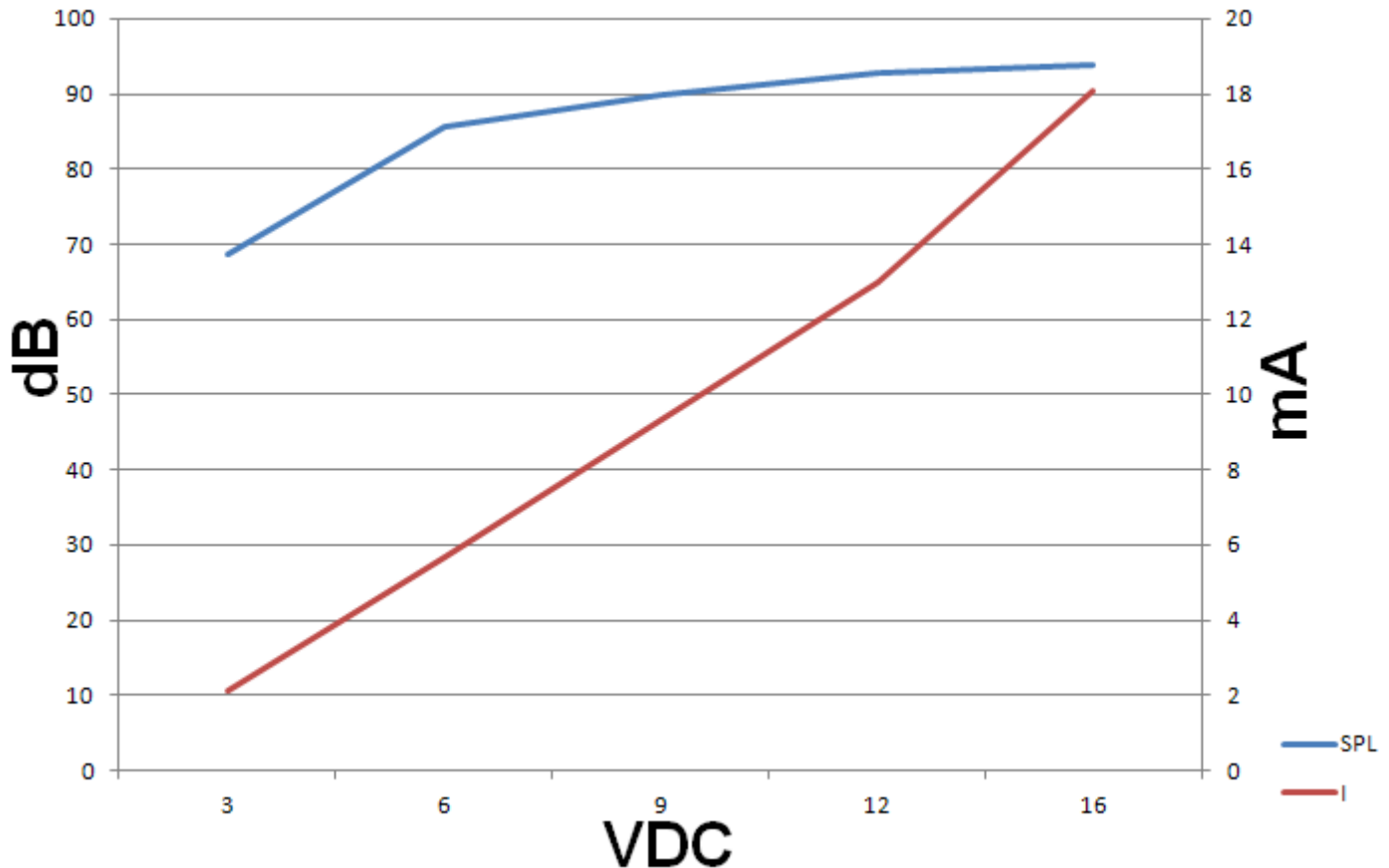
S.P.L. Measuring Circuit



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

S.G : Hewlett Packard 33120A Function Generator or equivalent

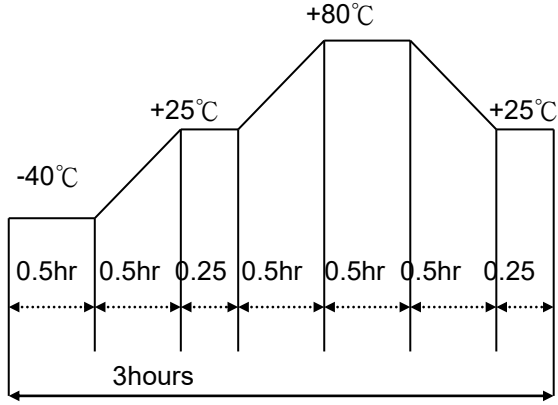
E. VOLTAGE: SOUND PRESSURE LEVEL / VOLTAGE: CURRENT CONSUMPTION CHARACTERISTICS



F. MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solderability	Lead terminals are immersed in solder bath of $+260\pm 5^{\circ}\text{C}$ for 3 ± 1 second.	95% surface of lead pads must be covered with fresh solder
2	Soldering Heat Resistance	Lead terminal are immersed in soldering bath of $+360\pm 10^{\circ}\text{C}$ for 3 ± 0.5 second.	No interference in operation.
3	Terminal Mechanical Strength	2 lead pads shall be soldered on the pc board, and the force (10n) shall be applied behind the part for 10 ± 1 seconds.	No damage and cutting off
4	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.
5	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°C for 240 hours	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.
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°C and 90±5% relative humidity for 240 hours	
4	Temp. cycle test	<p>The part shall be subjected to 5 cycles. One cycle shall consist of:</p>  <p>The diagram shows a temperature profile over 3 hours. It starts at -40°C for 0.5hr, then ramps up to +25°C in 0.5hr, dwells at +25°C for 0.25hr, ramps down to +80°C in 0.5hr, dwells at +80°C for 0.5hr, ramps down to +25°C in 0.5hr, dwells at +25°C for 0.25hr, and finally ramps down to -40°C in 0.5hr. The total duration is 3 hours.</p>	

H. RELIABILITY TEST

No.	Item	Test condition	Evaluation
1	Operating life test	<p>1. Continuous life test 48 hours continuous operation at +55°C with DC 12V applied.</p> <p>2. Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 5,000 times at room temp. (+25±2°C) and DC12V applied</p>	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