



Datasheet

RS PRO Piezo Audio Transducer

EN



A. SCOPE

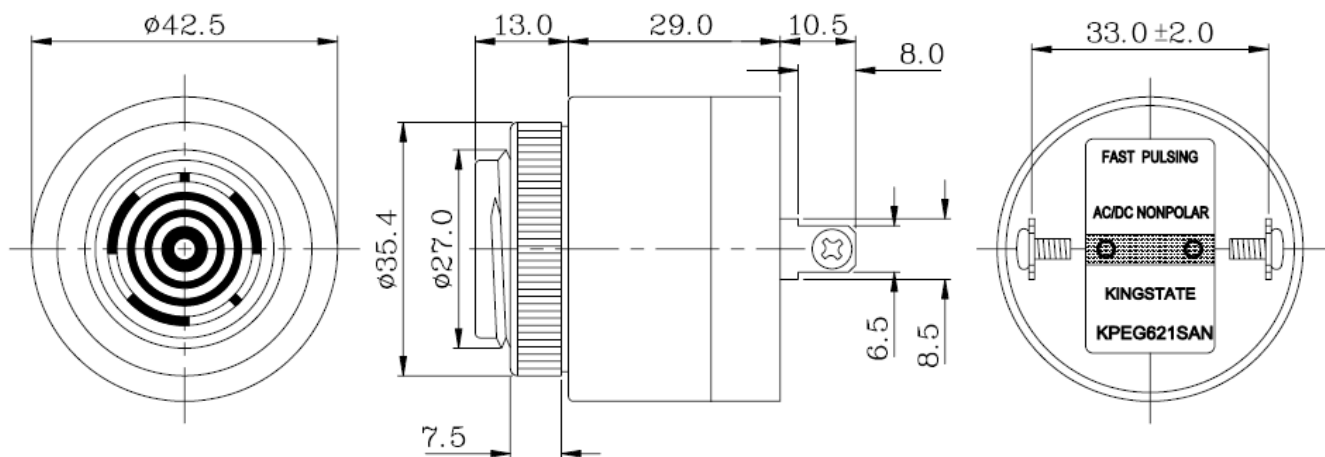
This specification applies piezo audio indicator, 1812687

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Resonant frequency	KHz	2.8 ± 0.5	
2	Operating Volt. range	AC/DC	60 ~ 250	
3	Current consumption	mA	MAX 16	at 220VDC/AC
4	Sound pressure level	dB	MIN 81	at 30cm/220VDC/AC
5	Rated Voltage	VDC/AC	220	
6	Tone		Fast Pulse (3.0Hz $\pm$ 20%)	at 220VDC/AC
7	Operating temp.	°C	-30 ~ +85	
8	Storage temp.	°C	-40 ~ +95	
9	Dimension	mm	ϕ 42.5.x H42.0	See appearance drawing
10	Weight (MAX)	gram	58.8	
11	Material		ABS UL-94 1/16" HB HIGH HEAT (BLACK)	
12	Terminal		Tin-Plated Tapped Screw (Plating Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	
14	Storage life	month	6	6 months preservation at room temp. (25 $\pm$ 3°C), Humidity40%



C. APPEARANCE DRAWING

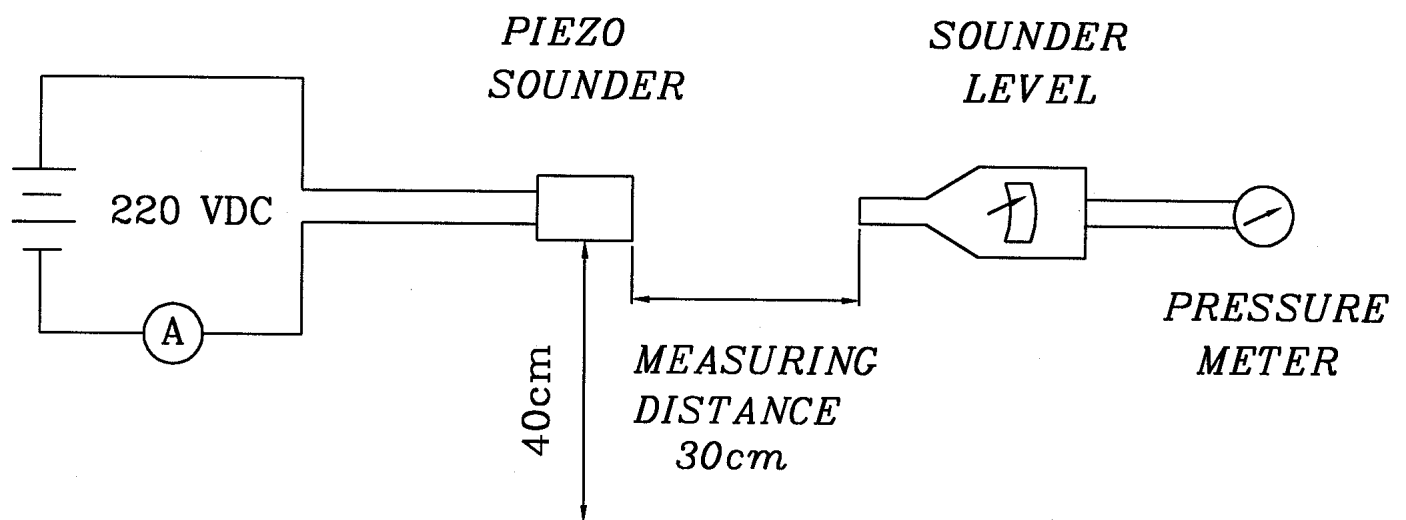


Tol : ± 0.5

Unit : mm

D. MEASURING METHOD

S.P.L. Measuring Circuit

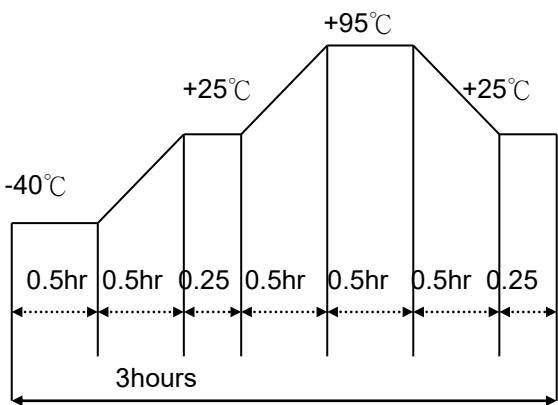


Mic : RION S.P.L meter UC30 or equivalent

E. MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solder ability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+230\pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds.	90% min. lead terminals shall be wet with solder.(Except the edge of terminal)
2	Soldering Heat Resistance	Lead terminal are immersed up to 1.5mm from sounder's body in solder bath of $+300\pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds or $+260\pm 5^{\circ}\text{C}$ for 10 ± 1 seconds.	No interference in operation.
3	Terminal Strength Pulling	The force 10 seconds of 9.8N is applied to each terminal in axial direction.	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 perpendicular 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).	

F. ENVIRONMENT TEST

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $+95^{\circ}\text{C}$ 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 with -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	The part shall be subjected to 5 cycles. One cycle shall be consist of :  The diagram illustrates a temperature cycle test profile. It starts at -40°C and rises to $+25^{\circ}\text{C}$ (0.5hr dwell), then to $+95^{\circ}\text{C}$ (0.5hr dwell), and finally back to $+25^{\circ}\text{C}$ (0.5hr dwell). This sequence is repeated 5 times. The total duration is 3 hours. The dwell times are: 0.5hr at -40°C, 0.5hr at $+25^{\circ}\text{C}$, 0.25hr at $+95^{\circ}\text{C}$, 0.5hr at $+25^{\circ}\text{C}$, and 0.25hr at $+95^{\circ}\text{C}$.	

G. RELIABILITY TEST

No.	Item	Test condition	Evaluation
1	Operating life test	1.Continuous life test 48 hours continuous operation at +70°C with rated voltage applied. 2.Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 5000 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