



Datasheet

RS PRO Piezo Audio Transducer

EN

RS Stock No: 181-2739



A. SCOPE

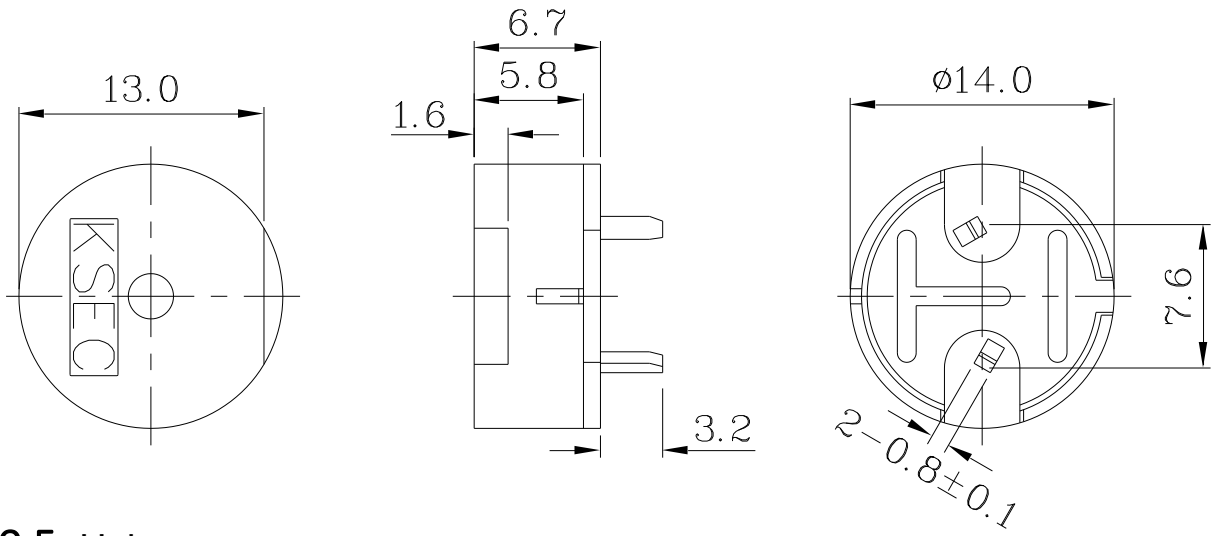
This specification applies piezo audio transducer 1812643

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Operating Volt.	Vp-p	MAX. 30	
2	Current consumption	mA	MAX. 7	at 10Vp-p,square wave,4.0KHz.
3	Sound pressure level	dB	MIN. 80	at 10cm/10Vp-p,square wave,4.0KHz.
4	Electrostatic capacity	pF	8,500 ± 30%	at 120Hz/1V
5	Operating temp.	°C	-30 ~ +85	
6	Storage temp.	°C	-40 ~ +90	
7	Dimension	mm	φ 14.0 x H6.7	See appearance drawing
8	Weight (MAX)	gram	1.0	
9	Material		PBT+10% GLASS (BLACK)	
10	Terminal		Pin type (/Plating Au)	See appearance drawing
11	Environmental Protection Regulation		RoHS	

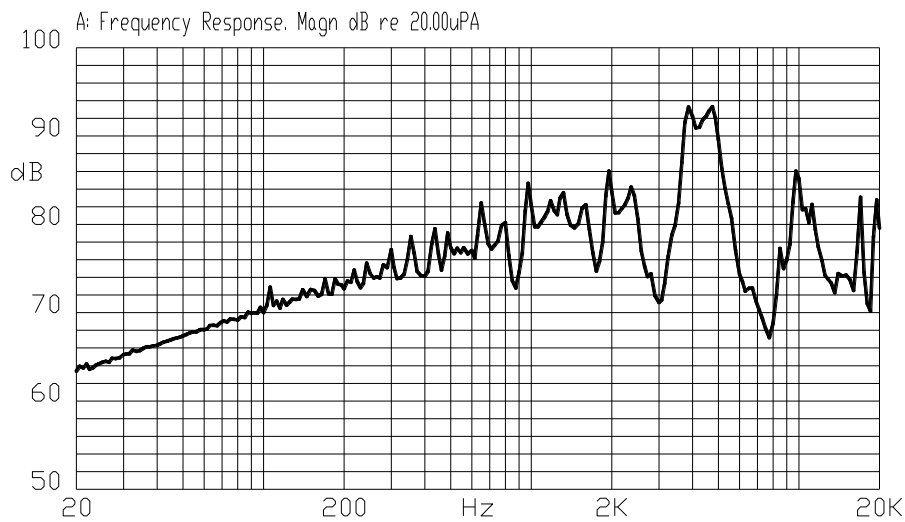


C. APPEARANCE DRAWING



Tol : ± 0.5 ,Unit: mm

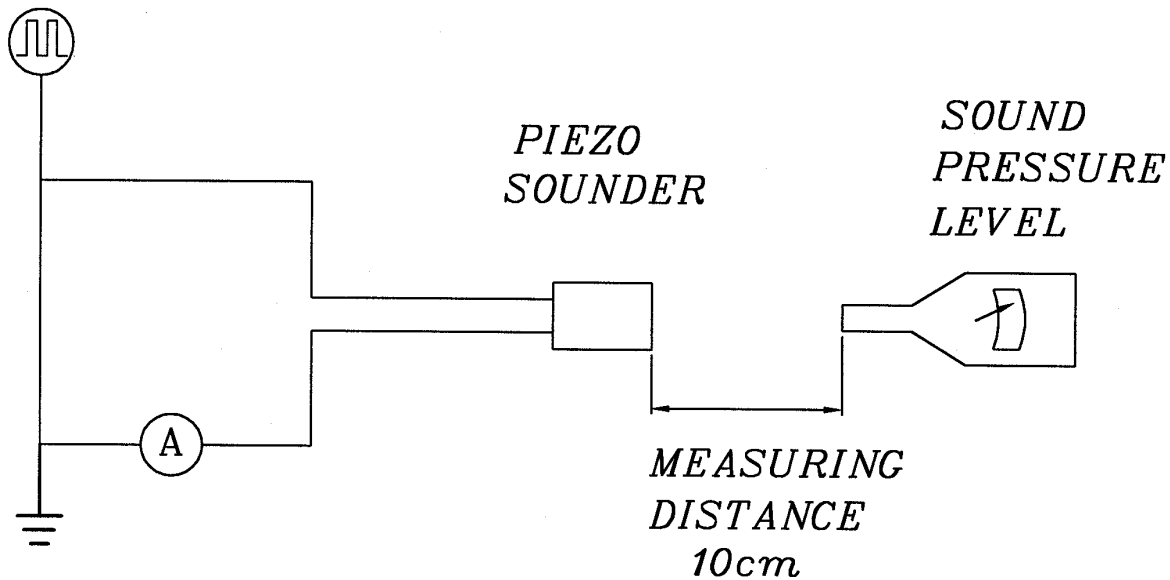
D TYPICAL FREQUENCY RESPONSE CURVE



E. MEASURING METHOD

S.P.L. Measuring Circuit

Input Signal: 10Vp-p, 4.0kHz, Square Wave



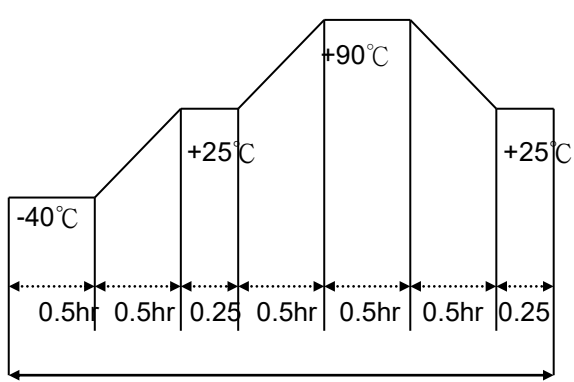
Mic : RION S.P.L meter UC30 or equivalent

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

F. MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solderability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm 5^{\circ}\text{C}$ for 3 ± 1 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 Mechanical Strength	The force 10 seconds of 9.8N (1.0kg) 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 per-pendicular directions for 2 hours.	The value of oscillation frequency/ current consumption should be in 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 $+90^{\circ}\text{C}$ 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 consist of::</p>  <p style="text-align: center;">3hours</p>	