Datasheet

RS PRO Piezo Audio Indicator

EN RS Stock: 181-2708

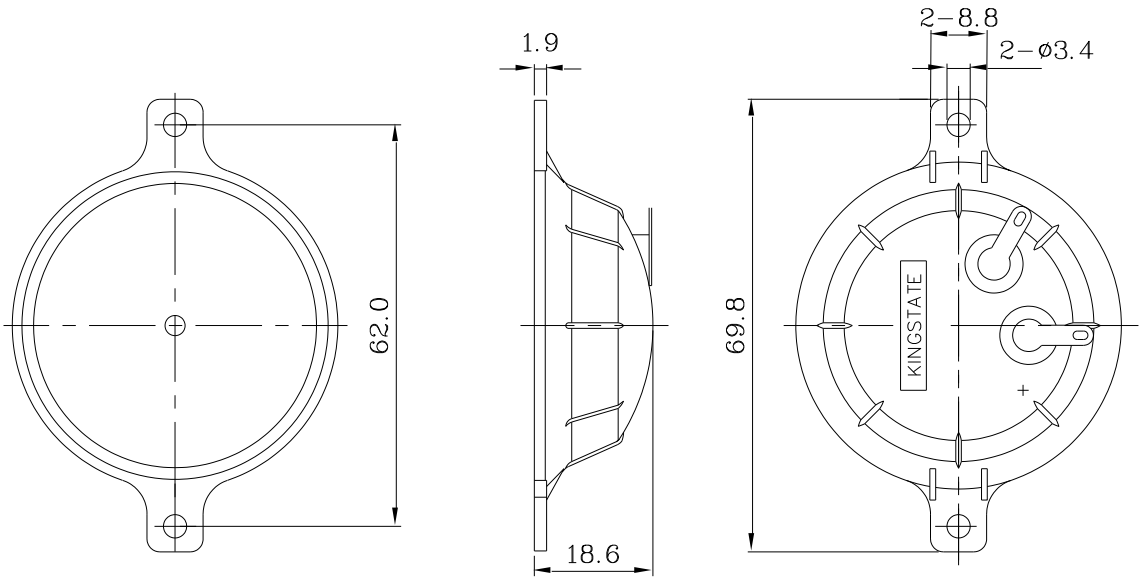
A. SCOPE

This specification applies piezo audio transducer, 1812702

B. SPECIFICATION

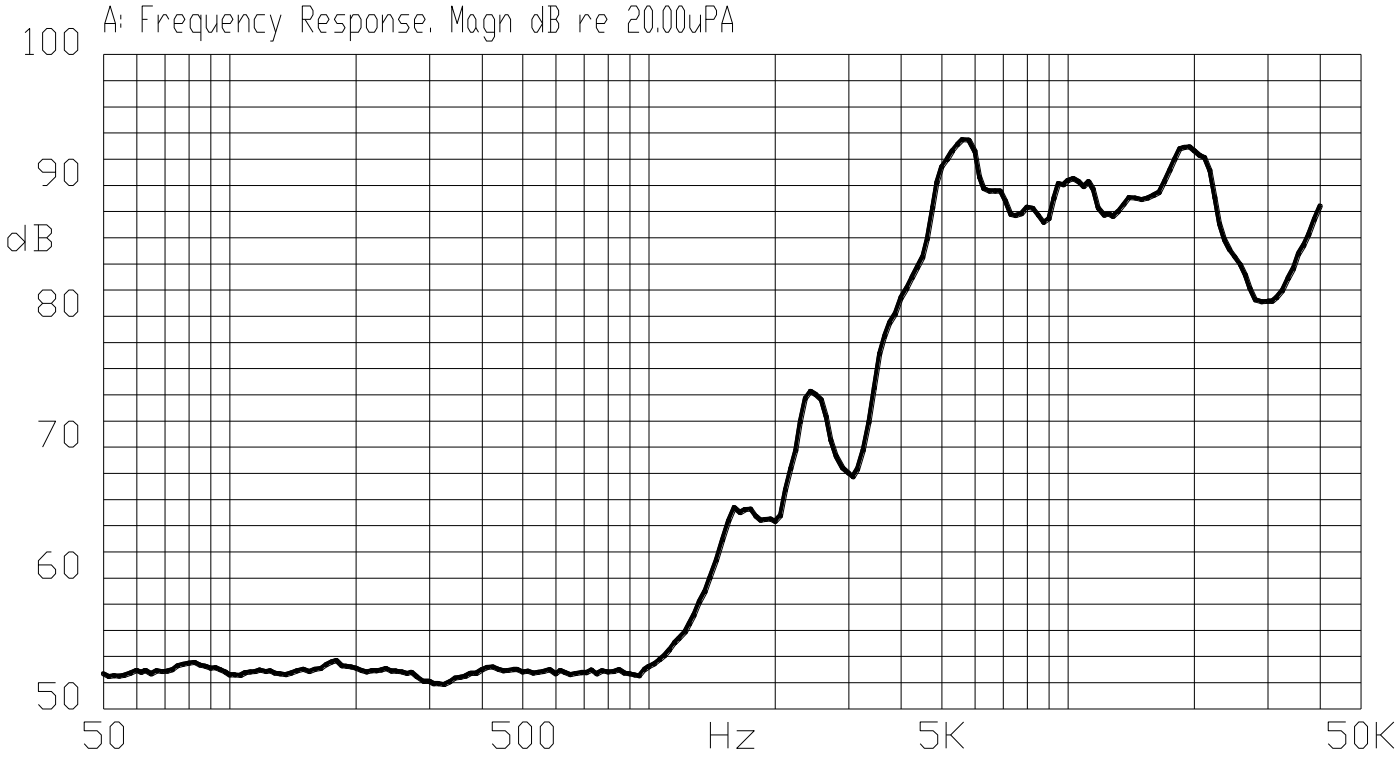
No.	Item	Unit	Specification	Condition
1	Operating Frequency	KHz	6 ~ 40	
2	Maximum Voltage	Vrms	12	Continuous
3	Maximum Voltage	Vrms	35	Intermittent
4	Sound pressure level	dB	MIN. 86	at 2.832Vrms sine wave/100cm 5,6,8,10KHz-AVG
5	Typical Impedance		Attached Drawing	
6	Operating temp.	℃	-30 ~ + 85	
7	Storage temp.	℃	-40 ~ + 95	
8	Dimension	mm	L69.8 x H18.6	See appearance drawing
9	Weight (MAX)	gram	10.0	
10	Material		ABS UL-94 1/16" HB HIGH HEAT (BLACK)	
11	Terminal		Pin type (/Plating Sn)	See appearance drawing
12	Environmental Protection Regulation		RoHS	
13	Storage life	month	6	6 months preservation at room temp. (25±3℃), Humidity40%

C. APPEARANCE DRAWING



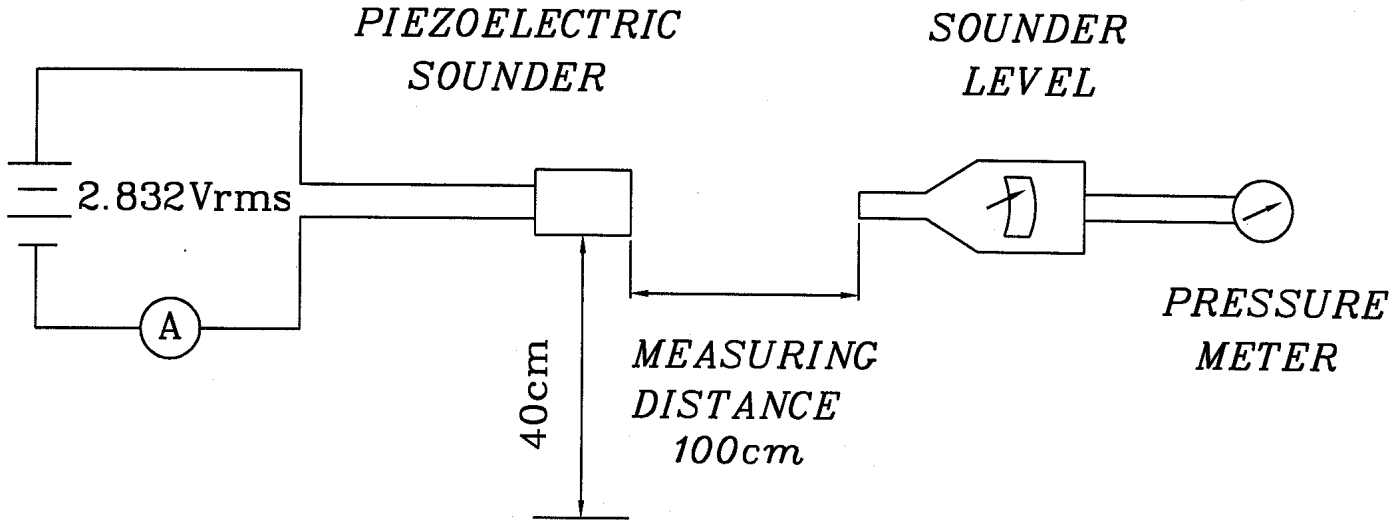
Tol : ± 0.5
Unit: mm

D. TYPICAL FREQUENCY RESPONSE CURVE



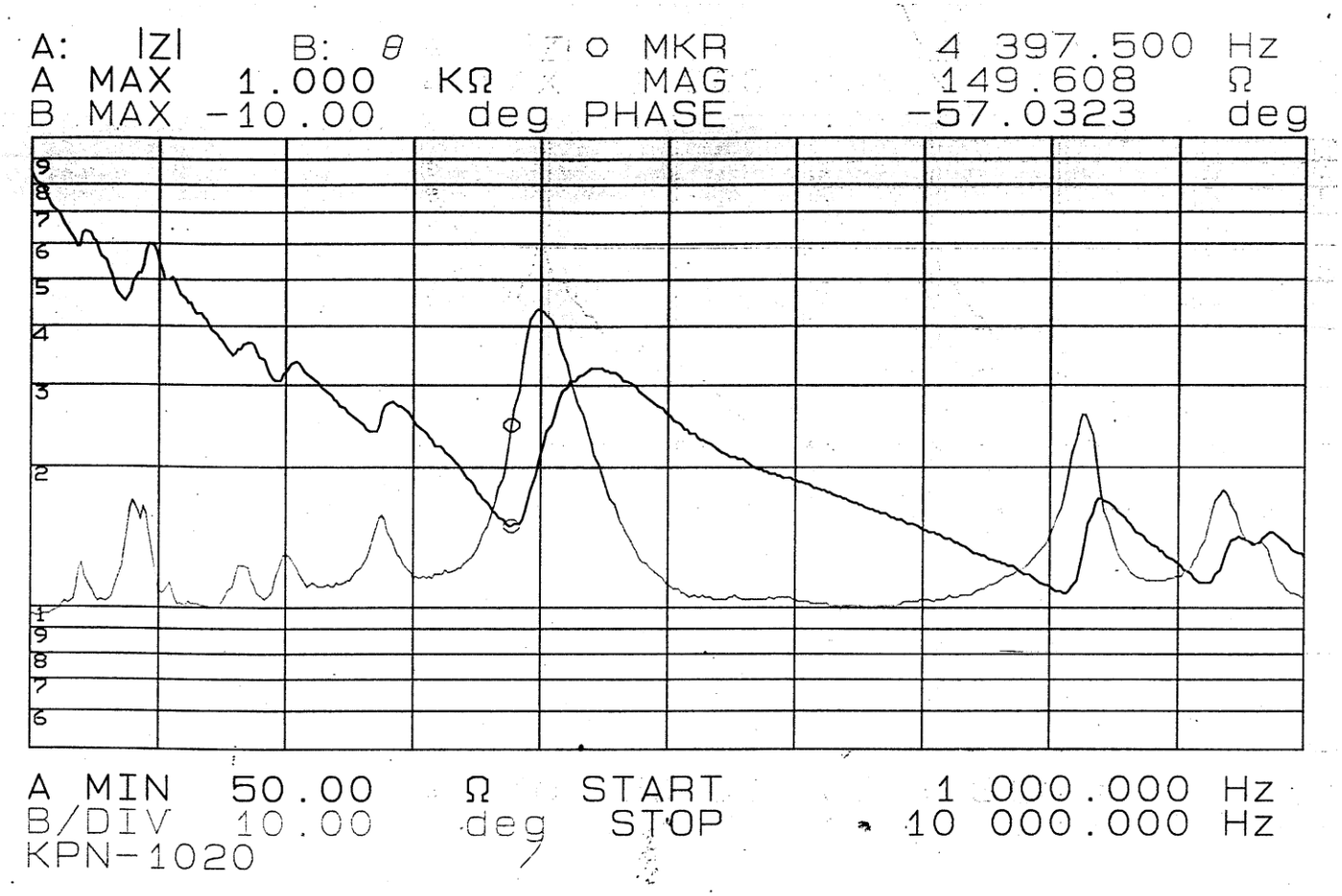
E. MEASURING METHOD

1. S.P.L. Measuring Circuit



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

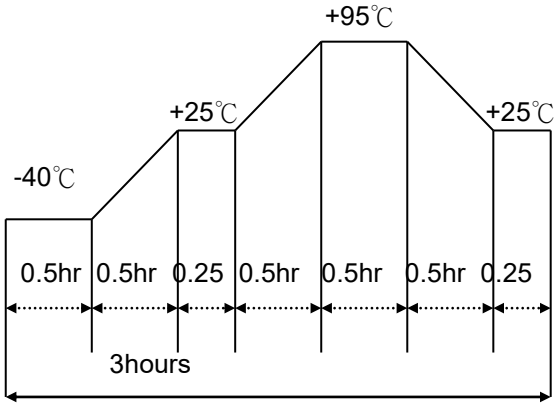
F. TYPICAL IMPEDANCE



G. 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±5℃ 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±5℃ for 3± 0.5 seconds or +260±5℃ 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 ± 10dB 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).**	

H. ENVIRONMENT TEST

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at +95℃ for 240 hours	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.
2	Low temp. test	After being placed in a chamber at –40℃ for 240 hours	
3	Humidity test	After being placed in a chamber at +40℃ and 90±5% relative humidity for 240 hours	
4	Temp. cycle test	The part shall be subjected to 5 cycles. One cycle shall be consist of: 	

I. RELIABILITY TEST

No.	Item	Test condition	Evaluation
1	Operating life test	1.Continuous life test 48 hours continuous operation at +70℃ 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℃)and rated voltage applied.	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.

TEST CONDITION.

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

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