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Datasheet

RS PRO Piezo Audio Indicator

EN RS Stock No: 181-2732



A.SCOPE

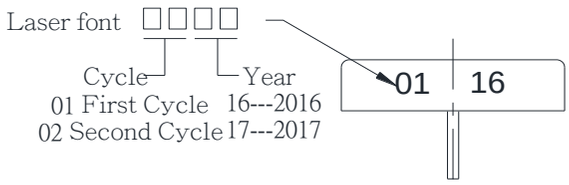
This specification applies piezo audio transducer, 1812642

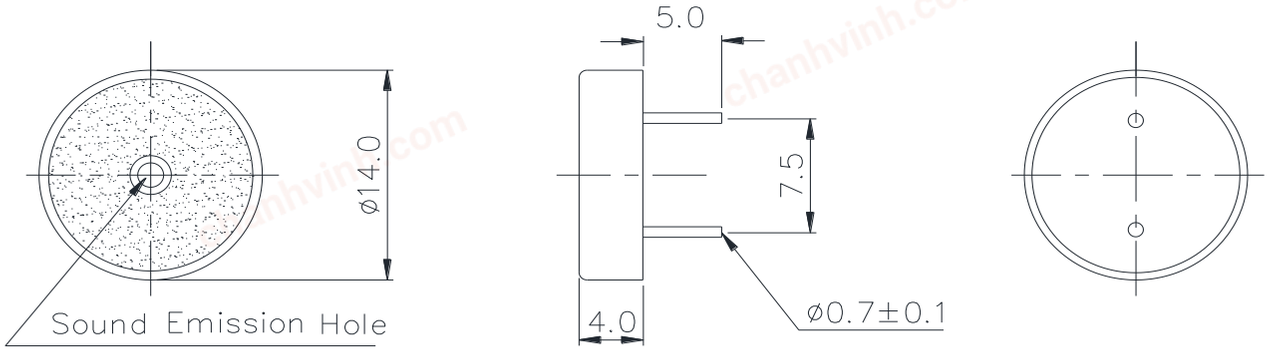
B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Operating Volt.	Vp-p	1~30	
2	Current consumption	mA	MAX 10	At 10Vp-p, square wave,4.0KHz.
3	Sound pressure level	dB	MIN 85	at 10 cm/10Vp-p,square wave,4.0KHz.
4	Electrostatic capacity	pF	16,000±30%	at 100Hz/1V
5	Operating temp.	ºC	-30 ~ +85	
6	Storage temp.	ºC	-40 ~ +95	
7	Dimension	mm	φ14.0 x H 4.0	See appearance drawing
8	Weight (MAX)	gram	0.7	
9	Material		PBT（BLACK）	
10	Terminal		Pin type (/Plating Sn)	See appearance drawing
11	Storage life	month	6	6 months preservation at room temp.(25±3℃), Humidity40%
12	Environmental Protection Regulation		HSF	

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C. APPEARANCE DRAWING



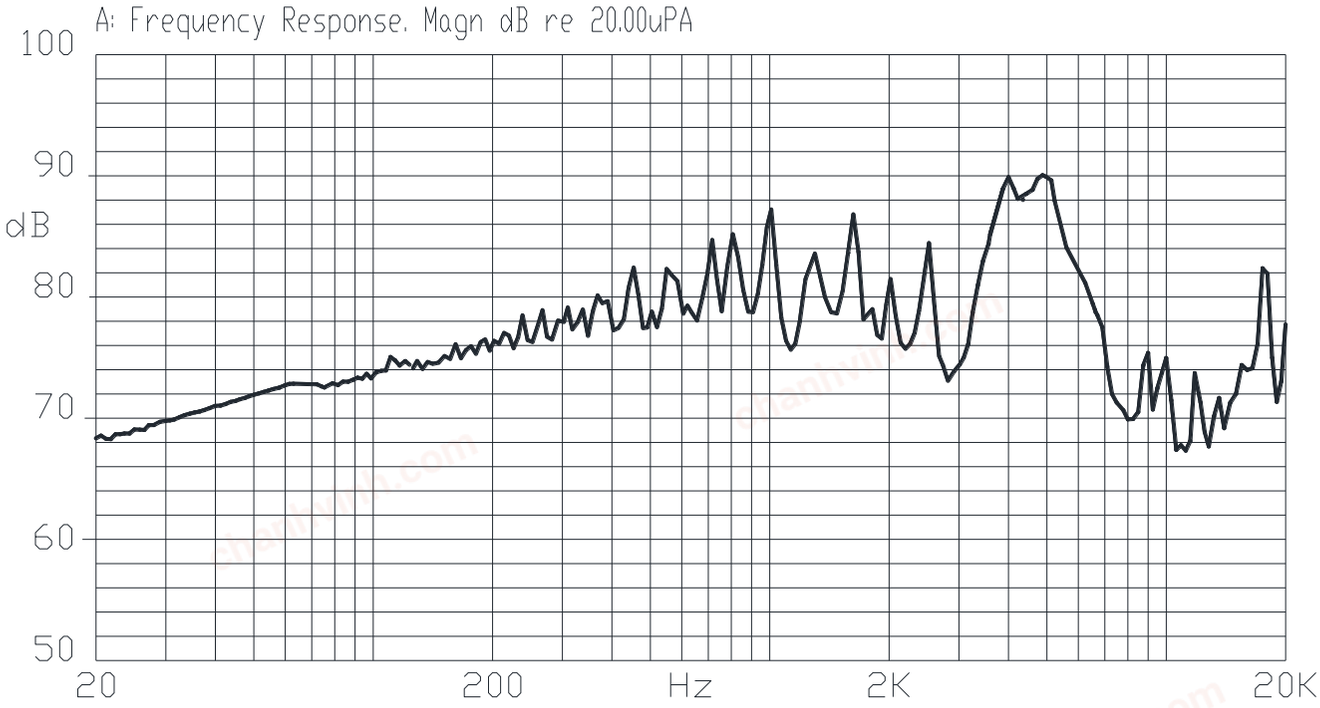


Unit : mm
Tol : ± 0.5

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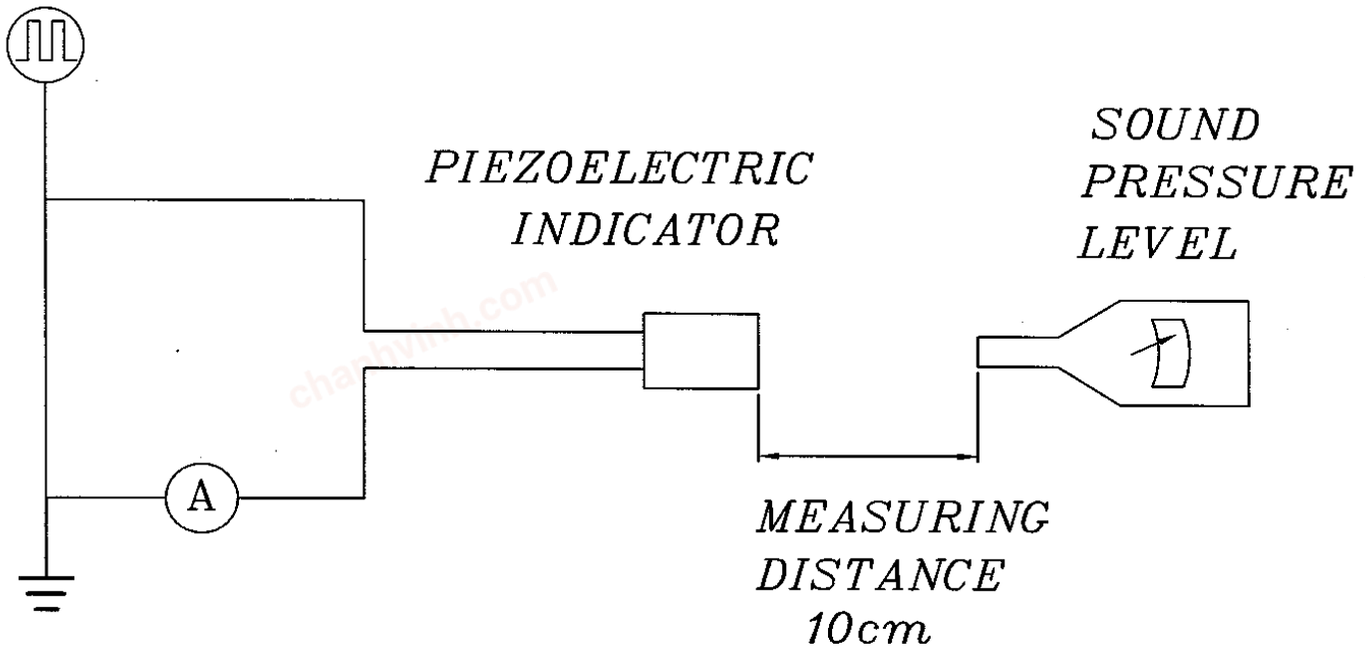
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D. TYPICAL FREQUENCY RESPONSE CURVE



E. MEASURING METHOD

S.P.L. Measuring Circuit
Input Signal: 10Vp-p,4.0kHz, Square Wave

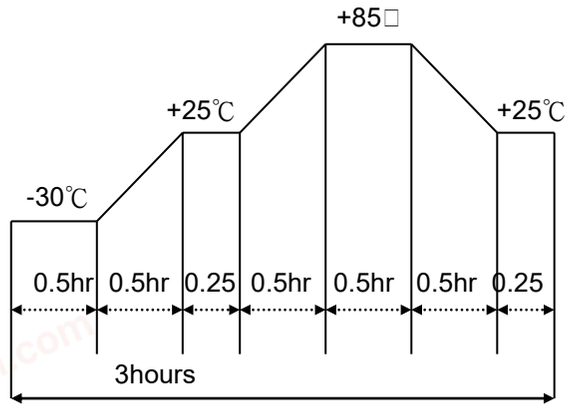


Mic : RION S.P.L meter UC30 or equivalent
S.G : Hewlett Packard 33120A Function Generator or equivalent

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±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 soilder 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).**	

G. ENVIRONMENT TEST

No	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at +85□ for 96 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 with –30□for 96 hours	
3	Humidity test	After being placed in a chamber at +40□ and 90±5% relative humidity for 96 hours	
4	Temp. cycle test	The part shall be subjected to 5 cycles. One cycle shall be consist of:: 	

H. RELIABILITY TEST

No.	Item	Test condition	Evaluation standard
1	Operating life test	1.Continuous life test 48 hours continuous operation at +80℃ 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 ~ +35ºC b) Humidity : 45-85% c) Pressure : 860-1060mpa

Judgement Test Condition: a) Temperature : +25 ± 2ºC b) Humidity : 60-70% c) Pressure : 860-1060mpa.

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