



Part No: CEP-1126

Description: piezo audio transducer

Date: 9/25/2006

Unit: mm

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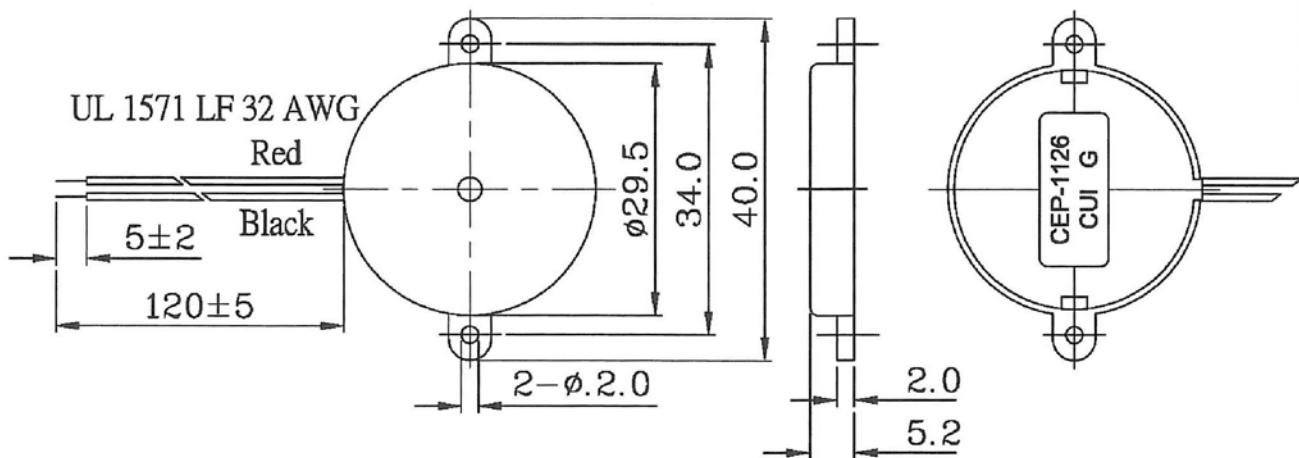


## Specifications

Operating voltage	30 Vp-p max.
Current consumption	10 mA max.
Sound pressure level	92 db min.
Electrostatic capacitance	18,000 pF $\pm 30\%$
Operating temperature	-30 ~ +85° C
Storage temperature	-40 ~ +95° C
Dimensions	$\varnothing 29.5 \times H5.2$ mm
Weight	5.6 g max.
Material	ABS UL-94 1/16" HB High Heat (Black)
Terminal	Wire type
RoHS	yes

## Appearance Drawing

Tolerance:  $\pm 0.5$





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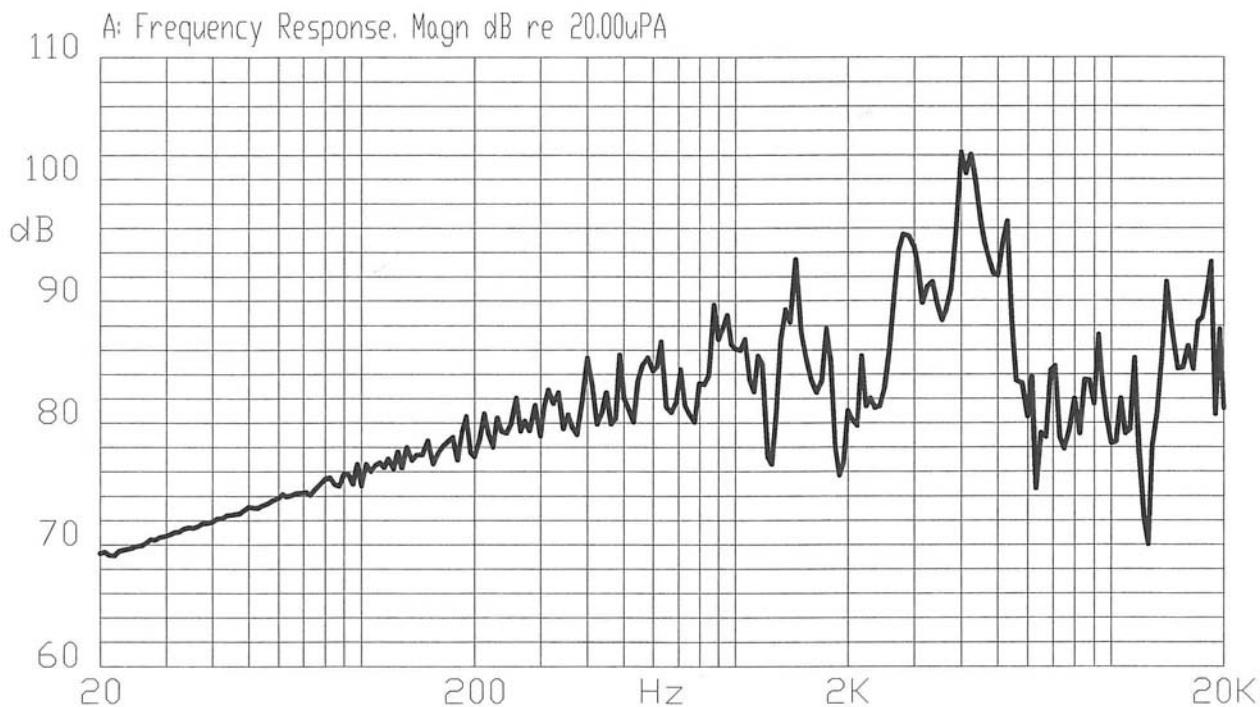
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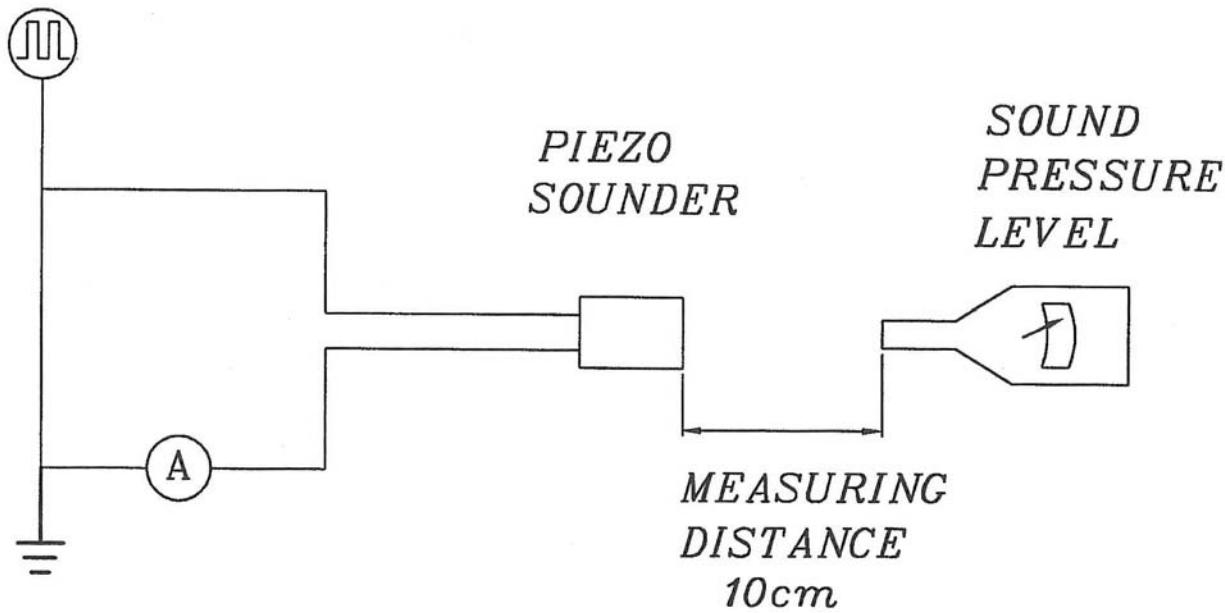
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## Typical Frequency Response Curve



## Measurement Method



S.P.L. Measuring Circuit

Input Signal: 10 V p-p, 2.8 KHz, Square Wave

Mic: RION UC 30

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



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## Mechanical Characteristics

Item	Test Condition	Evaluation Standard
Solderability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $270 \pm 5^\circ\text{C}$ for $3 \pm 0.5$ seconds.	90% min. of the lead terminals will be wet with solder. (Except the edge of the terminal)
Terminal Mechanical Strength	The pull force should be applied to the double lead wire: Horizontal 3.0N (0.306kg) for 30 seconds Vertical 2.0N (0.204kg) for 30 seconds	No damage or cutting off.
Vibration	The buzzer should be measured after applying a vibration amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours.	The value of oscillation frequency/current consumption should be $\pm 10\%$ of the initial measurements. The SPL should be within $\pm 10\text{dB}$ compared with the initial measurement.
Drop Test	The part will be dropped from a height of 75 cm onto a 40 mm thick wooden board 3 times in 3 axes (X, Y, Z) for a total of 9 drops.	

## Environment Test

Item	Test Condition	Evaluation Standard
High temp. test	After being placed in a chamber at $+95^\circ\text{C}$ for 240 hours.	
Low temp. test	After being placed in a chamber at $-40^\circ\text{C}$ for 240 hours.	
Humidity test	After being placed in a chamber at $+40^\circ\text{C}$ and $90 \pm 5\%$ relative humidity for 240 hours.	
Temp. cycle test	The part shall be subjected to 5 cycles. One cycle will consist of:	The buzzer will be measured after being placed at $+25^\circ\text{C}$ for 4 hours. The value of the oscillation frequency/current consumption should be $\pm 10\%$ compared to the initial measurements. The SPL should be within $\pm 10\text{dB}$ compared to the initial measurements.



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## Reliability Test

Item	Test Condition	Evaluation Standard
Operating (Life Test)	<p>1. Continuous life test: The part will be subjected to 48 hours of continuous operation at +70°C with rated voltage applied.</p> <p>2. Intermittent life test: A duty cycle of 1 minute on, 1 minute off, a minimum of 5,000 times at room temp (+25 ±2°C) with rated voltage applied.</p>	The buzzer will be measured after being placed at +25°C for 4 hours. The value of the oscillation frequency/current consumption should be ±10% compared to the initial measurements. The SPL should be within ±10dB compared to the initial measurements.

## Test Conditions

Standard Test Condition	a) Tempurature: +5 ~ +35°C	b) Humidity: 45 - 85%	c) Pressure: 860-1060 mbar
Judgement Test Condition	a) Tempurature: +25 ±2°C	b) Humidity: 60 - 70%	c) Pressure: 860-1060 mbar



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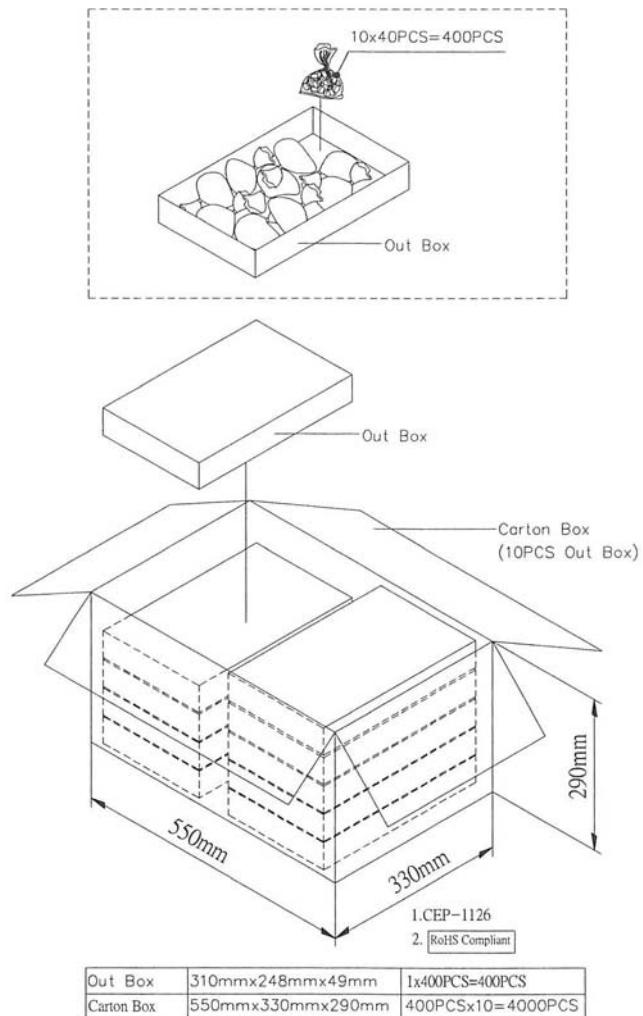
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## Packaging



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