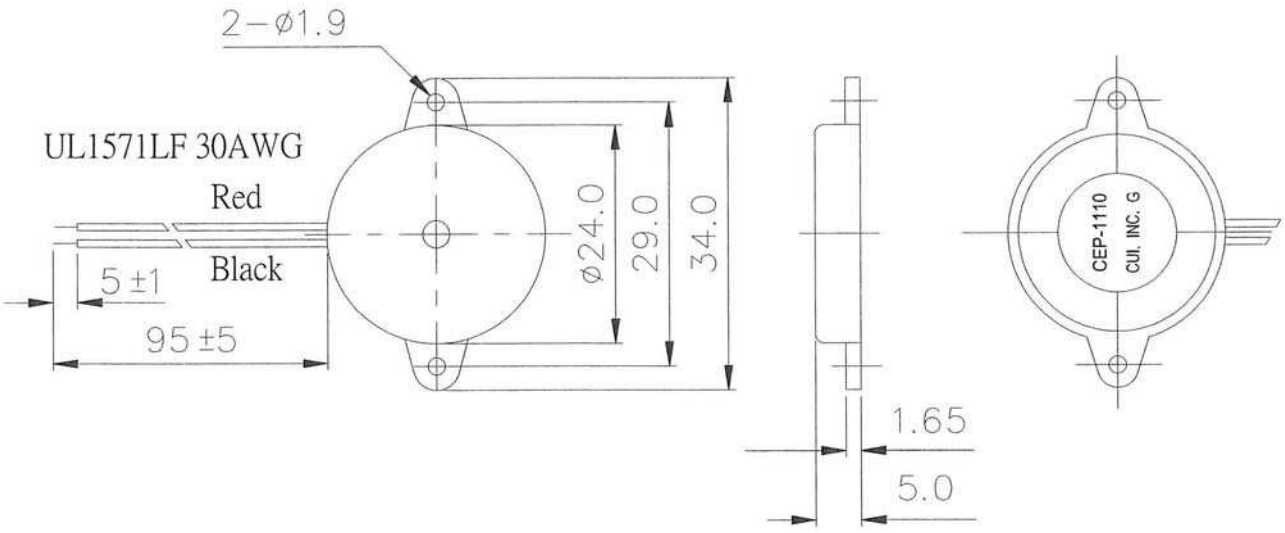
RoHS

Specifications

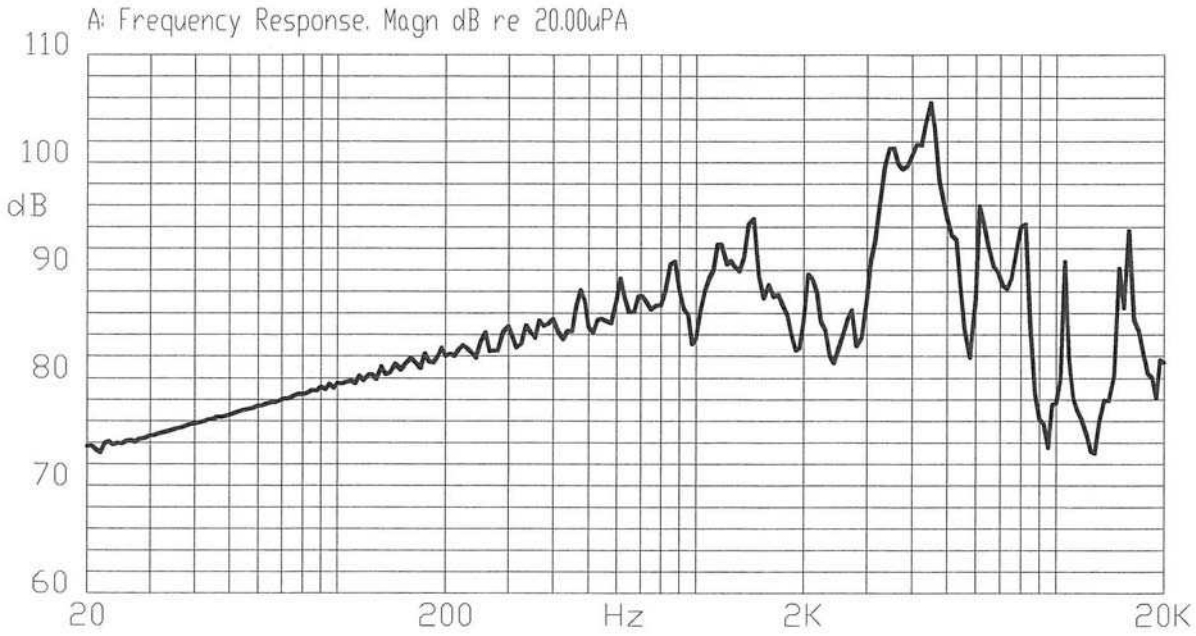
Operating voltage	30 Vp-p max.	
Current consumption	12 mA max.	at 10 Vp-p, square wave, 4.1 KHz
Sound pressure level	90 db min.	at 10 cm / 10 Vp-p, square wave, 4.1 KHz
Electrostatic capacitance	25,000 pF ±30%	at 1 KHz / 1 V
Operating temperature	-30 ~ +85°C	
Storage temperature	-40 ~ +95°C	
Dimensions	ø24.0 x H5.0 mm	
Weight	2.2 g max.	
Material	ABS UL-94 1/16" HB High Heat (Black)	
Terminal	Wire type	
RoHS	yes	

Appearance Drawing

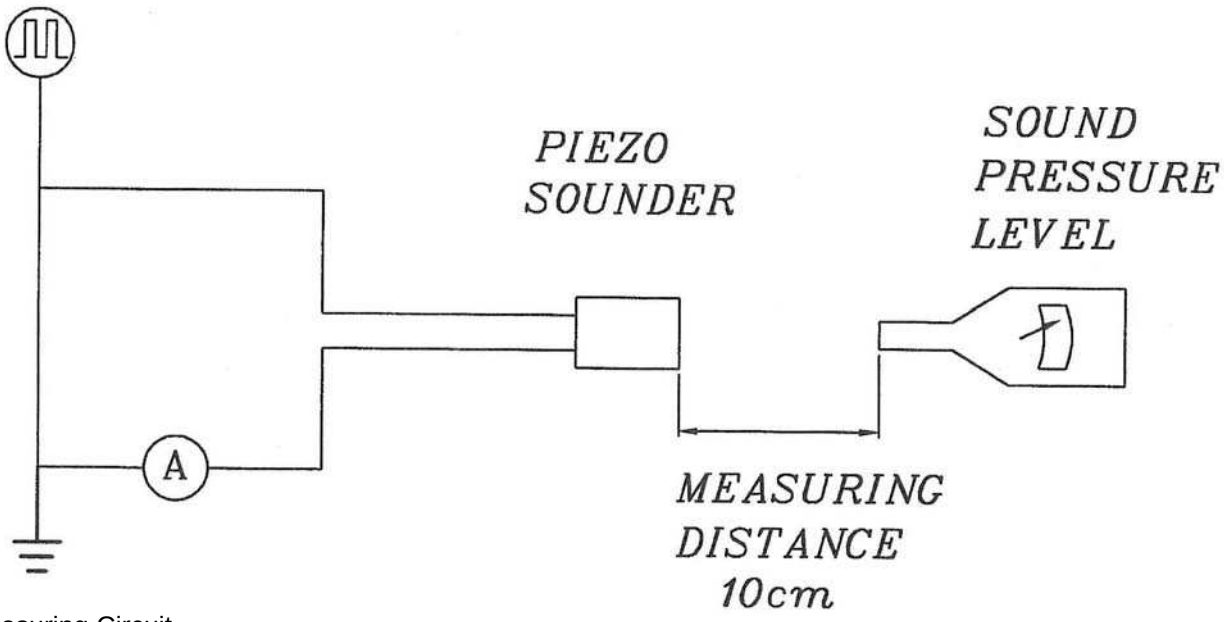
Tolerance: ±0.5



Typical Frequency Response Curve



Measurement Method

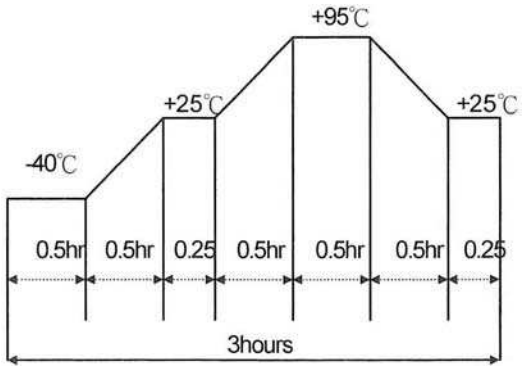


S.P.L. Measuring Circuit
Input Signal: 10 V p-p, 4.1 KHz, Square Wave
Mic: RION UC 30
S.G.: Hewlett Packard 33120A Function Generator or equivalent

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 ±5℃ for 3 ±0.5 seconds.	90% min. of the stripped wires 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 ±10% of the initial measurements. The SPL should be within ±10dB 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℃ for 240 hours.	The buzzer will be measured after being placed at +25℃ 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.
Low temp. test	After being placed in a chamber at -40℃ for 240 hours.	
Humidity test	After being placed in a chamber at +40℃ and 90±5% relative humidity for 240 hours.	
Temp. cycle test	The part shall be subjected to 5 cycles. One cycle will consist of:  	

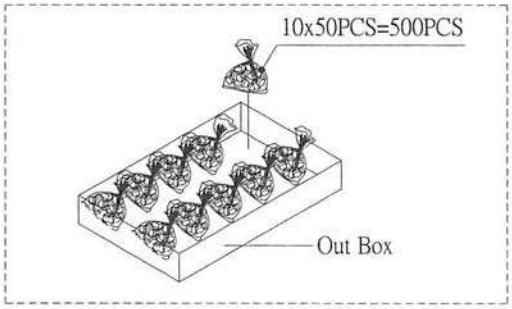
Reliability Test

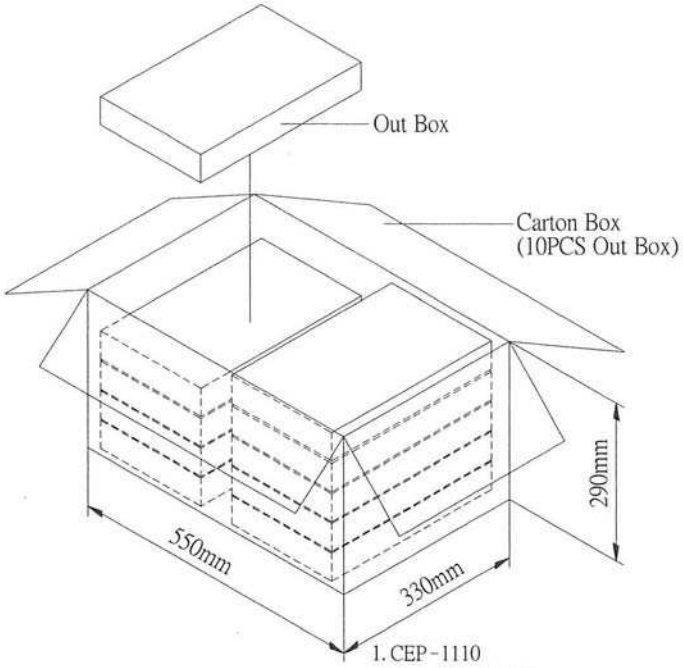
Item	Test Condition	Evaluation Standard
Operating (Life Test)	1. Continuous life test: The part will be subjected to 250 hours of continuous operation at +85℃ with rated voltage applied. 2. Intermittent life test: A duty cycle of 1 minute on, 5 minutes off, a minimum of 10,000 times at room temp (+25 ±2℃) with rated voltage applied.	The buzzer will be measured after being placed at +25℃ 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℃	b) Humidity: 45 - 85%	c) Pressure: 860-1060 mbar
Judgement Test Condition	a) Tempurature: +25 ±2℃	b) Humidity: 60 - 70%	c) Pressure: 860-1060 mbar

Packaging





1. CEP-1110
2. RoHS Compliant

Out Box	310mmx248mmx49mm	10x50PCS=500PCS
Carton Box	550mmx330mmx290mm	500PCSx10=5,000PCS