

Description: piezo audio transducer

Date: 9/18/2006

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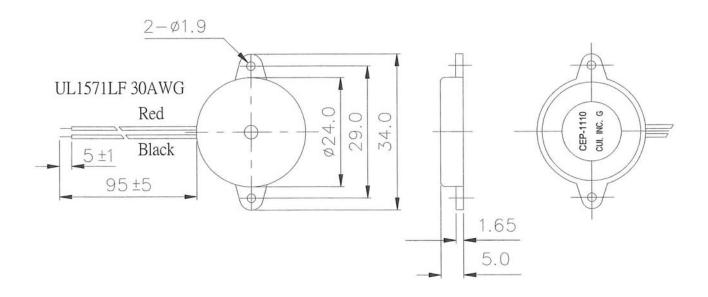


# **Specifications**

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



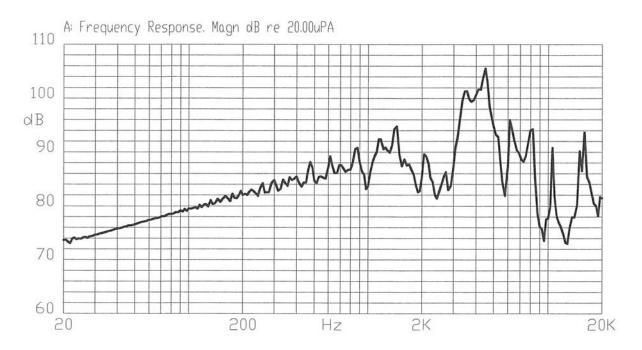
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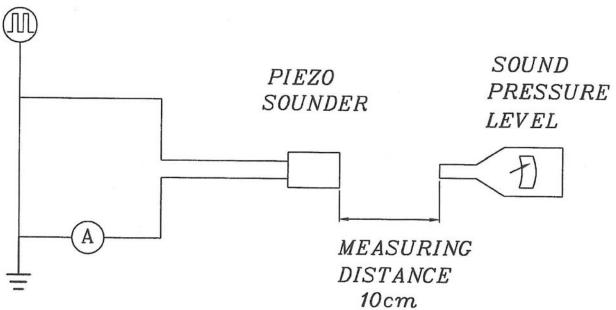
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### **Typical Frequency Response Curve**



### **Measurement Method**



S.P.L. Measuring Circuit

Input Signal: 10 V p-p, 4.1 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	90% min. of the stripped wires
	5 seconds and then immersed in solder bath	will be wet with solder. (Except
	of 270 ±5°C for 3 ±0.5 seconds.	the edge of the terminal)
Terminal Mechanical Strength	The pull force should be applied to the double	
_	lead wire:	No damage or cutting off.
	Horizontal 3.0N (0.306kg) for 30 seconds	
	Vertical 2.0N (0.204kg) for 30 seconds	
Vibration	The buzzer should be measured after applying	The value of oscillation
	a vibration amplitude of 1.5 mm with 10 to	frequency/current consumption
	55 Hz band of vibration frequency to each of	should be ±10% of the initial
	the 3 perpendicular directions for 2 hours.	measurements. The SPL should
Drop Test	The part will be dropped from a height of	be within ±10dB compared with
·	75 cm onto a 40 mm thick wooden board 3	the initial measurement.
	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°C for 240 hours.	
Low temp. test	After being placed in a chamber at -40°C for 240 hours.	
Humidity test	After being placed in a chamber at +40°C and 90±5% relative humidity for 240 hours.	The buzzer will be measured after
Temp. cycle test	The part shall be subjected to 5 cycles. One cycle will consist of:  +95°C  -40°C  0.5hr 0.5hr 0.25 0.5hr 0.5hr 0.5hr 0.25  3hours	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.



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**Reliability Test** 

Item	Test Condition	Evaluation Standard
Operating (Life Test)	Continuous life test:	The buzzer will be measured after
	The part will be subjected to 250 hours of	being placed at +25°C for 4
	continuous operation at +85°C with rated	hours. The value of the
	voltage applied.	oscillation frequency/current
		consumption should be ±10%
	2. Intermittent life test:	compared to the initial
	A duty cycle of 1 minute on, 5 minutes off, a	measurements. The SPL should
	minimum of 10,000 times at room temp	be within ±10dB compared to
	(+25 ±2°C) with rated voltage applied.	the initial measurements.

#### **Test Conditions**

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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

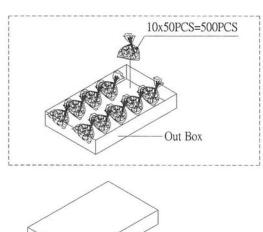
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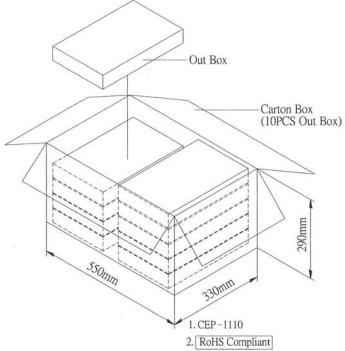
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# **Packaging**





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