Description: piezo audio indicator

Date: 9/22/2006 Unit: mm

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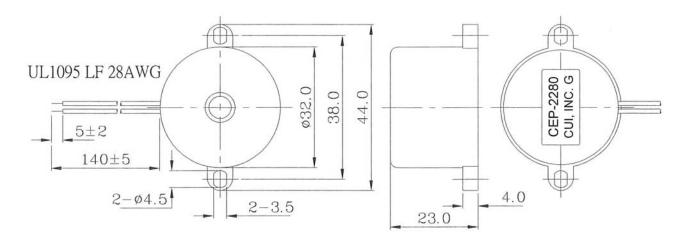


# **Specifications**

Resonant frequency	2.5 ~ 3.8 KHz	
Operating voltage	6.0 ~ 18.0 V dc	
Current consumption	17 mA max.	at 12 V dc
Sound pressure level	88 db min.	at 30 cm / 12 V dc
Rated Voltage	12 V dc	
Tone	High/Low	
Operating tempurature	-20 ~ +60° C	
Storage tempurature	-30 ~ +70° C	
Dimensions	ø32.0 x H23.0 mm	See attached drawing
Weight	13.20 g max.	
Material	ABS UL-94 1/16" HB (Black)	
Terminal	Wire type	See attached drawing
RoHS	yes	

# **Appearance Drawing**

Tolerance: ±0.5

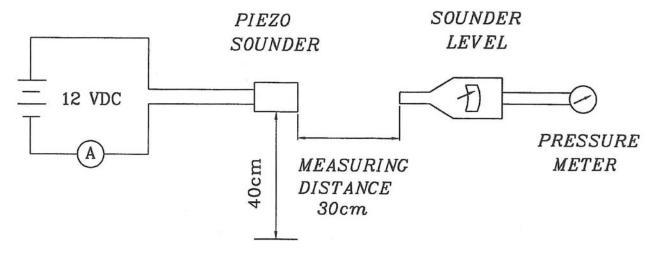


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#### **Measurement Method**



S.P.L. Measuring Circuit

Mic: RION S.P.L. meter UC 30 or equivalent

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

## **Mechanical Characteristics**

Item	Test Condition	Evaluation Standard	
Solderability	Stripped wires of lead wires are immersed in	90% min. of the stripped wires	
(Connector excepted)	rosin for 5 seconds and then immersed in	will be wet with solder.	
	a solder bath of +270 ±5°C for 3 ±0.5 seconds.	(Except 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 will 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 75 cm	be within ±10dB compared with	
	onto a 40 mm thick wooden board 3 times in	the initial measurement.	
	3 axis (X, Y, Z) for a total of 9 drops.		



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## **Environment Test**

Item 7	est Condition	<b>Evaluation Standard</b>
• .	After being placed in a chamber at +70°C for 40 hours.	
•	ofter being placed in a chamber at -30°C for 40 hours.	
•	offer being placed in a chamber at +40°C and 0±5% relative humidity for 240 hours.	The buzzer will be measured after
	The part shall be subjected to 5 cycles. One cycle will consist of:  +70°C  +25°C  0.5hr 0.5hr 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 within ±10% compared to the initial measurements. The SPL should be within ±10dB compared to the initial measurements.

**Reliability Test** 

Item	Test Condition	<b>Evaluation Standard</b>
Operating (Life Test)	Continuous life test:	The buzzer will be measured after
	The part will be subjected to 48 hours of	being placed at +25°C for 4
	continuous operation at +45°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, 1 minute off, a	measurements. The SPL should
	minimum of 5,000 times at room temp	be ±10dB compared to the initial
	(+25±2°C) with rated voltage applied.	measurements.

#### **Test Conditions**

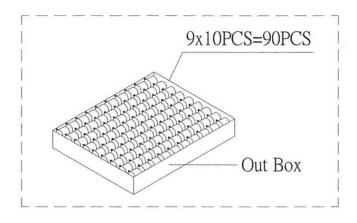
Standard Test Condition	a) Tempurature: +5 ~ +35°C	b) Humidity: 45 - 85%	c) Pressure: 860 - 1060 mbar
Judgement Test Condition	a) Tempurature: +25 ±2°C	b) Humidity: 60 - 70%	c) Pressure: 860 - 1060 mbar

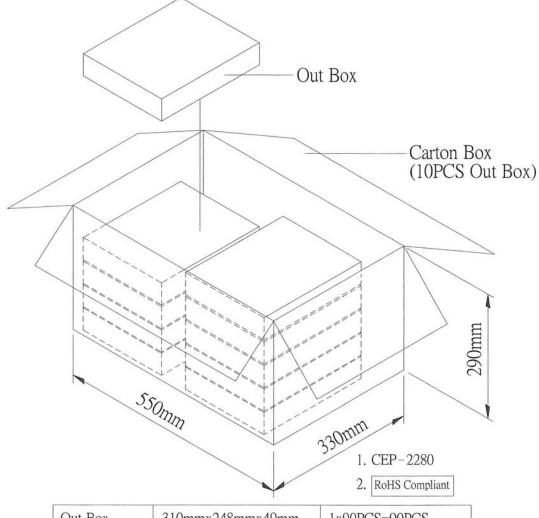
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### **Packaging**





Out Box	310mmx248mmx49mm	1x90PCS=90PCS
Carton Box	550mmx330mmx290mm	90PCSx10=900PCS