

Description: piezo telephone ringer

Date: 10/19/2006

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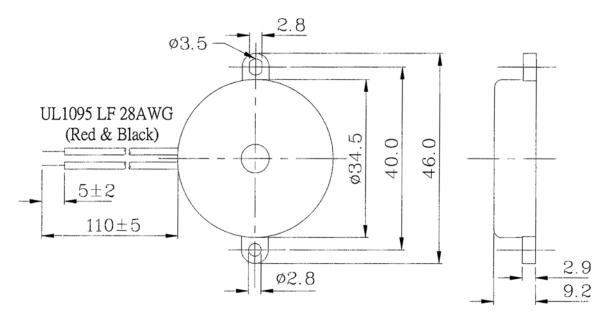


**Specifications** 

30 Vp-p max.	
9 mA max.	at 10 Vp-p, square wave, 1.1 KHz
81 db min.	at 10 cm / 10 Vp-p, square wave, 1.1 KHz
43,000 pF ±30%	at 120 Hz / 1 V
-30 ~ +85° C	
-40 ~ +95° C	
ø34.5 x H9.2 mm	
5.3 g max.	
ABS UL-94 1/16" HB High	Heat (Black)
Wire type	
yes	
	9 mA max. 81 db min. 43,000 pF ±30% -30 ~ +85° C -40 ~ +95° C Ø34.5 x H9.2 mm 5.3 g max. ABS UL-94 1/16" HB High Wire type

## **Appearance Drawing**

Tolerance: ±0.5



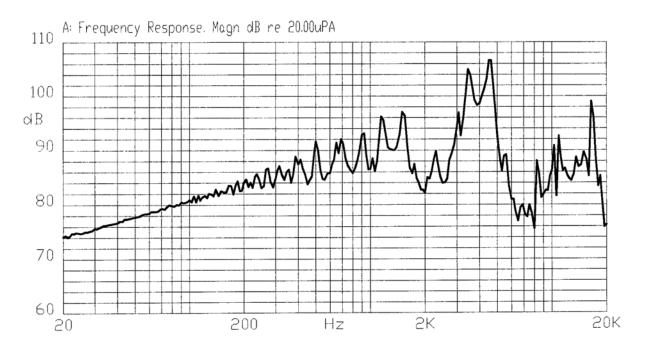
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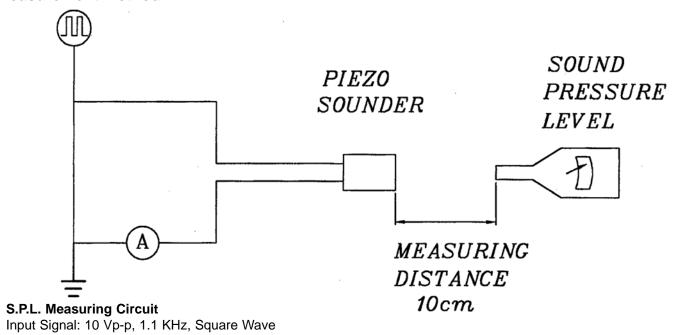
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## **Typical Frequency Response Curve**



#### **Measurement Method**



Mic: RION S.P.L. meter UC30 or equivalent

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



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### **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 measuremen	
	3 axis (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.	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.
Humidity test	After being placed in a chamber at +40°C and 90±5% relative humidity for 240 hours.	
Temp. cycle test	The part shall be subjected to 5 cycles. One cycle will consist of:  +95°C  -40°C  0.5hr  0.5hr  0.5hr  0.5hr  0.5hr  0.5hr  0.5hr  0.5hr	



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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 48 hours of	being placed at +25°C for 4
	continuous operation at +70°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 within ±10dB compared to
	(+25 ±2°C) with rated voltage applied.	the initial measurements.

### **Test Conditions**

1001 001141110110			
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**

