

Description: piezo audio transducer

Date: 9/19/2006 Unit: mm

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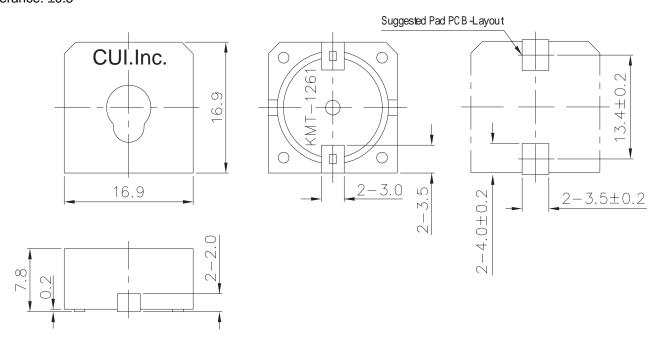


Specifications

20 Vp-p max.	
10 mA max.	at 10 Vp-p, square wave, 5 KHz
88 db min.	at 10 cm / 10 Vp-p, square wave, 5 KHz
15,000 pF ±30%	at 1 KHz / 1 V
-30 ~ +70° C	
-40 ~ +80° C	
L16.9 x W16.9 x H7.8 mm	
2.6 g max.	
PPS UL-94 V-0 (Black)	
SMD type (Au Plating)	
yes	
	10 mA max. 88 db min. 15,000 pF ±30% -30 ~ +70° C -40 ~ +80° C L16.9 x W16.9 x H7.8 mm 2.6 g max. PPS UL-94 V-0 (Black) SMD type (Au Plating)

Appearance Drawing

Tolerance: ±0.5



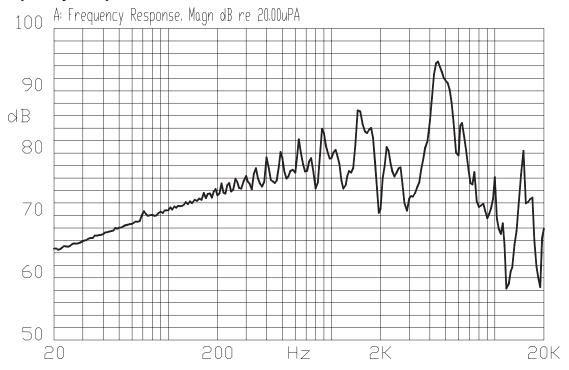
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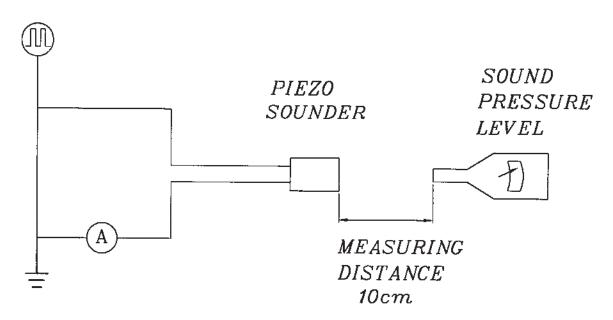
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Typical Frequency Response Curve



Measurement Method

S.P.L. Measuring Circuit Input Signal: 10Vp-p,5kHz, Square Wave



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	Lead terminals are immersed in solder bath	95% of the surface must be	
•	of 270 ±5°C for 3 ±1 seconds.	covered with fresh solder.	
Soldering Heat Resistance	The product follows the reflow temperature	No interference in operation.	
-	curve to test its reflow thermo stability.	·	
Terminal Mechanical Strength	Lead pads should be soldered onto the pc		
	board and the force of 9.8N (1.0kg) should be	No damage or cutting off.	
	applied behind the part for 10 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 within ±10% of the	
	the 3 perpendicular directions for 2 hours.	initial measurements. The SPL	
Drop Test	The part will be dropped from a height of	should be within ±10dB compared	
	75 cm onto a 40 mm thick wooden board 3	with 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 +80°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 within ±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 should be subjected to 5 cycles. One cycle will consist of: +80 0.5hr 0.5hr 0.25 0.5hr 0.5hr 0.5hr 0.25 3hours	



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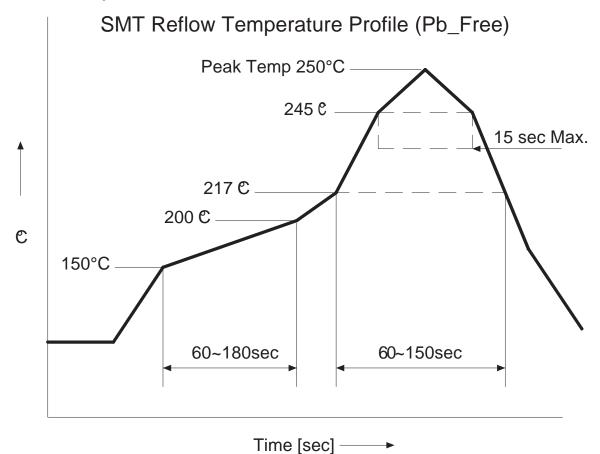
Reliability Test

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 +55°C with rated	hours. The value of the
	voltage applied.	oscillation frequency/current consumption should be within
	2. Intermittent life test:	±10% 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

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

Recommended Temperature Profile for Reflow Oven





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Packaging

