

SPECIFICATION

Customer : ELCART

Applied To :

Product Name : Piezo Buzzer

Model Name : KPI-G2331-3157

Drawing No. : OEM3157R

Compliance with ROHS



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1. Scope

This product specification is applied to the piezoelectric sounder in alarm systems. Please contact us when using this product for any other applications than described in the above.

2. General

2.1 Out-Diameter: Ø23mm

2.2 Height: 13mm

2.3 Weight: 4.5 gr.

2.4 Case Material/Color: ABS/Black

3. Maximum Rating

	Item	Specification
3.1	Maximum input Voltage	3-24VDC
3.2	Operating Temperature Range	-20°C÷+60°C
3.3	Storage Temperature Range	-30°C÷+70°C

4. Electrical Characteristics

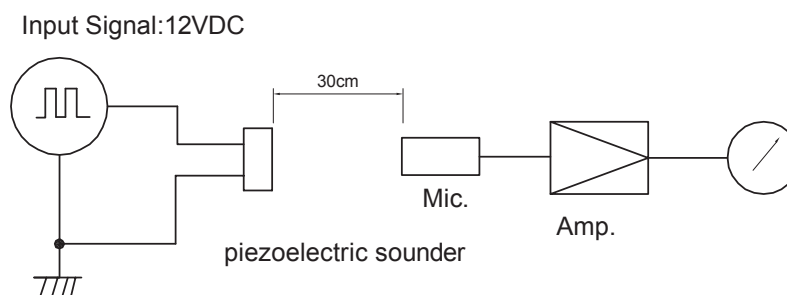
	Item	Specification
4.1	Sound Pressure Level	≥ 85dB at 12VDC/30cm
4.2	Resonant Frequency	3.5±0.5KHz
4.3	Max.Rated Current	≤10mA at 12VDC
4.4	Tone Nature	Continuous

Refer to next item for measuring method.

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5. Measuring Method

5.1 S.P.L. Measuring Circuit



MIC : ND10 Sound meter or equivalent

DC Power Supply : DF1730SL2A or equivalent

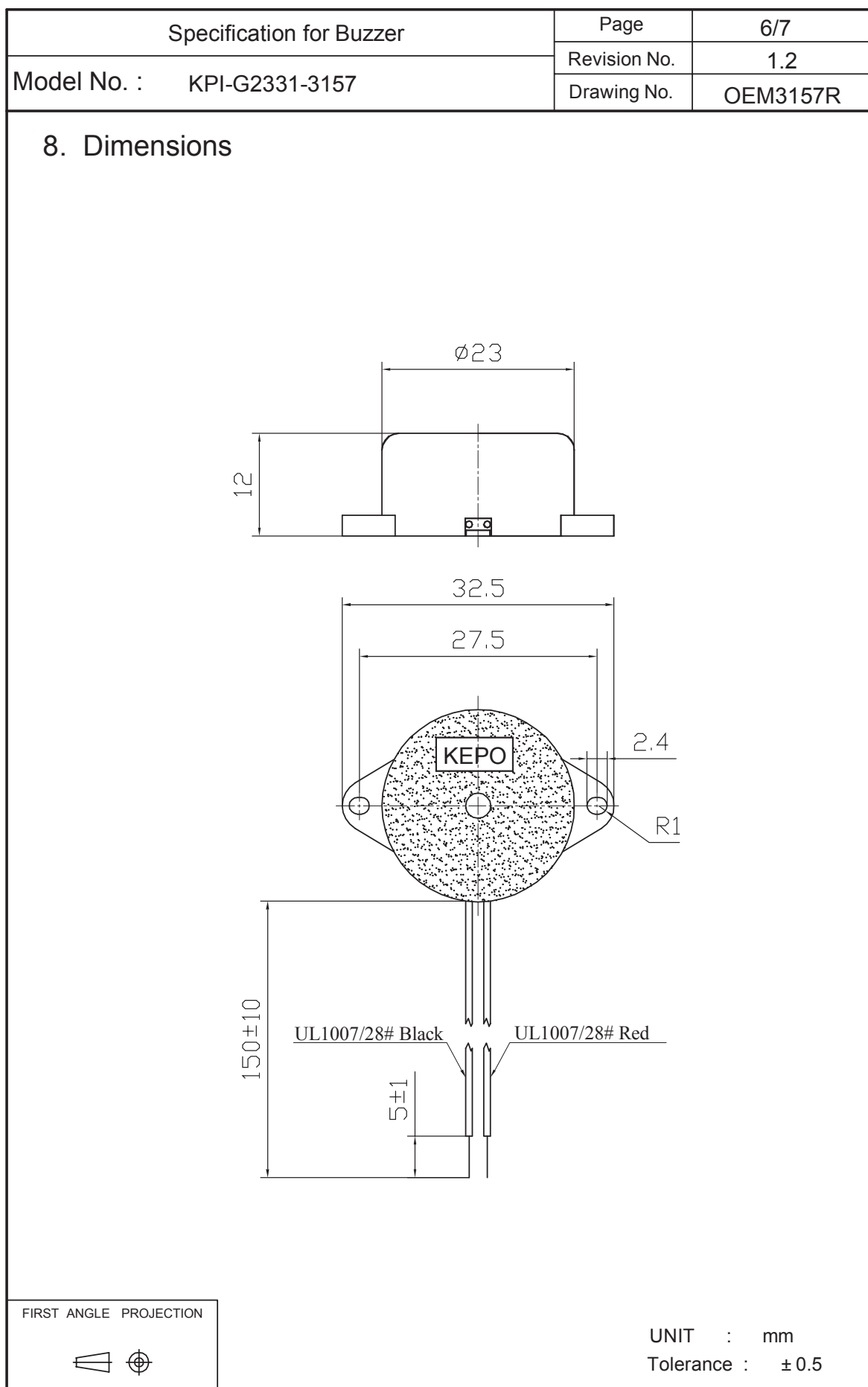
5.2 Measuring Condition

Part shall be measured under a condition (Temperature : +5 to +35°C, Humidity : 45 to 85%RH) unless the standard condition (Temperature : +25°C±3°C Humidity : 60±10%RH) is regulated measure.

6. Physical Characteristics

	Item	Test Condition	Specification
6.1	Shock	Sounder shall be measured after being applied shock(490m/s ²) for each three mutually perpendicular directions to each of 3 times by half sine wave.	The measured value shall meet Table 1.
6.2	Vibration Resistant	Sounder shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours.	

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7. Environmental Characteristics			
	Item	Test Condition	Specification
7.1	Dry Heat Test (Storage)	After being placed in a chamber with +70 ± 2°C for 96 hours and then being placed in natural condition for 4 hours, sounder shall be measured.	The measured value shall meet Table 1.
7.2	Cold Test (Storage)	After being placed in a chamber with -30 ± 2°C for 96 hours and then being placed in natural condition for 4 hours, sounder shall be measured.	
7.3	Humidity	After being placed in a chamber with 90 to 95%R.H. at +40± 2°C for 96 hours and then being placed in natural condition for 4 hours, sounder shall be measured.	
7.4	Temperature Cycle	After being placed in a chamber at -30± 2°C for 30 minutes, sounder shall be placed at room temperature(+20°C).After 15 minutes at this temperature ,sounder shall be placed in a chamber at +70± 2°C. After 30 minutes at this temperature, sounder shall be returned to room temperature (+20°C) for 15 minutes. After 5 above cycles, sounder shall be measured after being placed in natural condition for 4 hours.	
Table 1			
Item		Specification after test	
Sound Pressure Level		Initial Value± 10dB	



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<h2>9 Packaging Standard</h2> <p>Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number, quantity and outgoing inspection number.</p> <p>There shall be no mechanical damage on products during transportation and/or in storage.</p> <h2>10. Cautions</h2> <p>Please contact us before using our products for the undermentioned applications requiring especially high reliability in order to prevent defects which might directly cause damage to other party's life, body or property (listed below).</p> <ol style="list-style-type: none"> 1. Aircraft equipment 2. Aerospace equipment 3. Undersea equipment 4. Medical equipment 5. Transportation equipment (automobiles, trains, ships) 6. Traffic signal equipment 7. Disaster prevention/crime prevention equipment 8. Data-processing equipment 9. Applications of similar complexity or reliability requirements comparable to the applications listed in the above <h2>11. Cautions for Use</h2> <ol style="list-style-type: none"> 11.1 The component may be damaged if mechanical stress over this specification is applied. 11.2 Please pay attention to protect operating circuit from surge voltage provided by something of force such as failing, shock and temperature changing. 11.3 Washing of the component is not acceptable. Because it is not sealed. 11.4 In case of using solder iron for soldering, the top of soldering iron's temperature should be kept less than +350°C. Moreover the soldering time should be also kept within 3 seconds. 			