

力臻股份有限公司
LJ DEVICE CO., LTD.

零件規格書 / 承認書
SPECIFICATION FOR APPROVAL

CUSTOMER : _____

DESCRIPTION : Linear Vibrator Motor

MODEL : FG-B1030L10001B

CUSTOMER PART NO : _____

APPROVED SIGNATURES

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Rev	Date	Description	Designed	Checked	Approved
A	2018/11/12	Release		Maya	

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Product Specification

P/N10001B

Keywords:Linear Vibrator, 230hms, Φ10x3.05mm, Contact :WIRE,GP Compliant

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2. Environmental Requirement

The transducer including all components and solder joints must be free from lead (Pb) and other banned or restricted substances according to customer's requirements.

3. Description and Application

This is a pad contact vibrator which is applied with an AC signal (sine wave/square wave) around the resonant frequency. This device is recommended to be used for mobile phone or accessory.

4. Standard Operation Condition.

- 4.1 Rated voltage 2.0Vrms AC (Sinewave)
- 4.2 Operating voltage range 0-2.0Vrms
- 4.3 Rated Frequency 205Hz
- 4.4 Operating temperature range
-20°C to +70°C ordinary humidity (No condensation of moisture)
- 4.5 Storage temperature range
-40°C to +85°C ordinary humidity (No condensation of moisture)

5. Characteristics

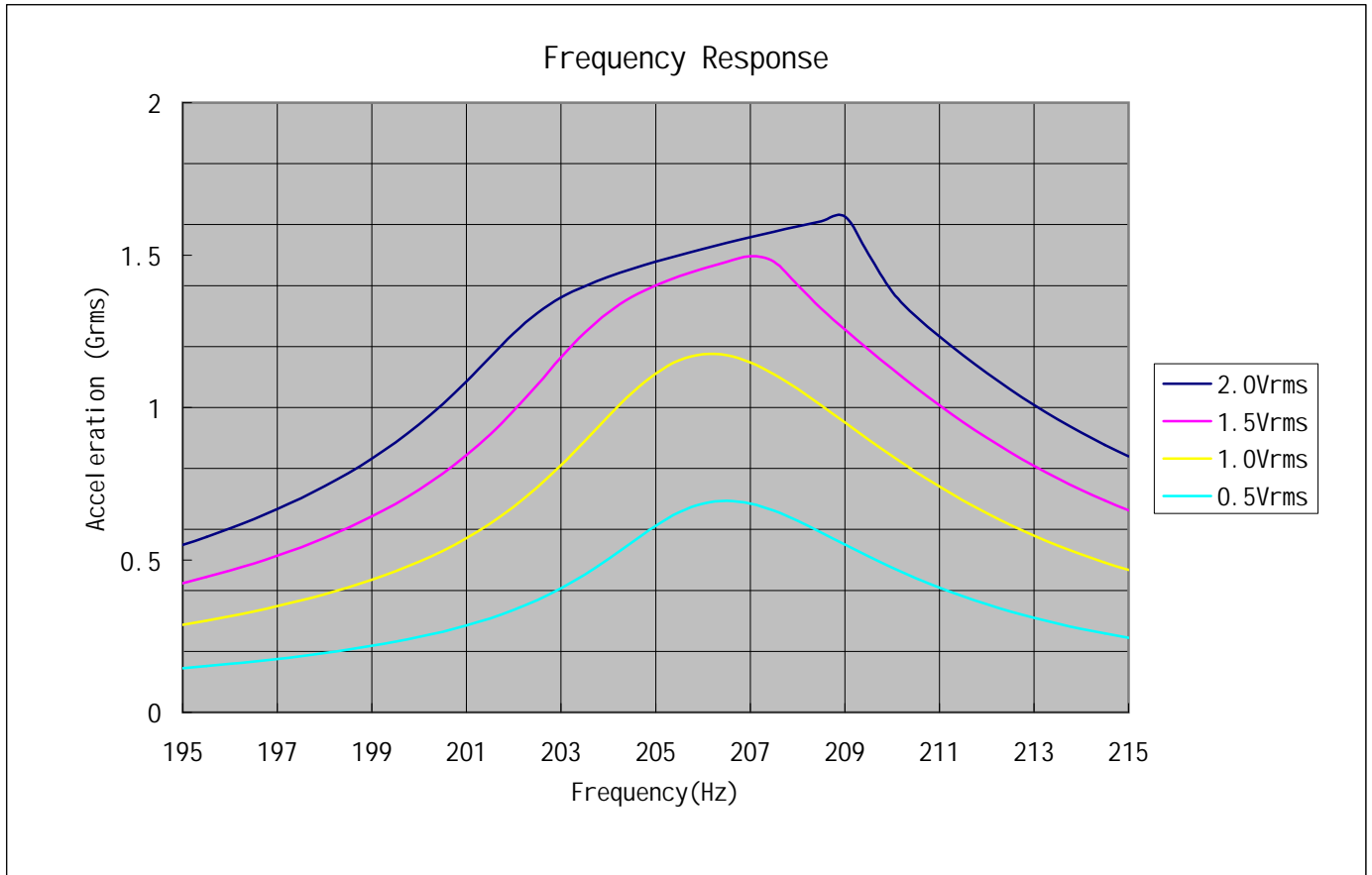
- 5.1 Coil Resistance 23 \pm 10% Ω
- 5.2 Rated Current 90mA Max
- 5.3 Acceleration: \geq 1.25Grms @100g test Jig 205Hz 2.0Vrms
(Refer to 6 Standard test Condition)
- 5.4 Noise: \leq 50dB @10cm 100g test jig 205Hz 2.0Vrms
(Refer to 6 Standard test Condition)
- 5.5 Decay rate: \geq 120dB/s (Free decay rate of vibration)
- 5.6 Insulation Resistance: 1M Ω Min @ 100VDC Between terminal and housing.

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6. Standard test Condition

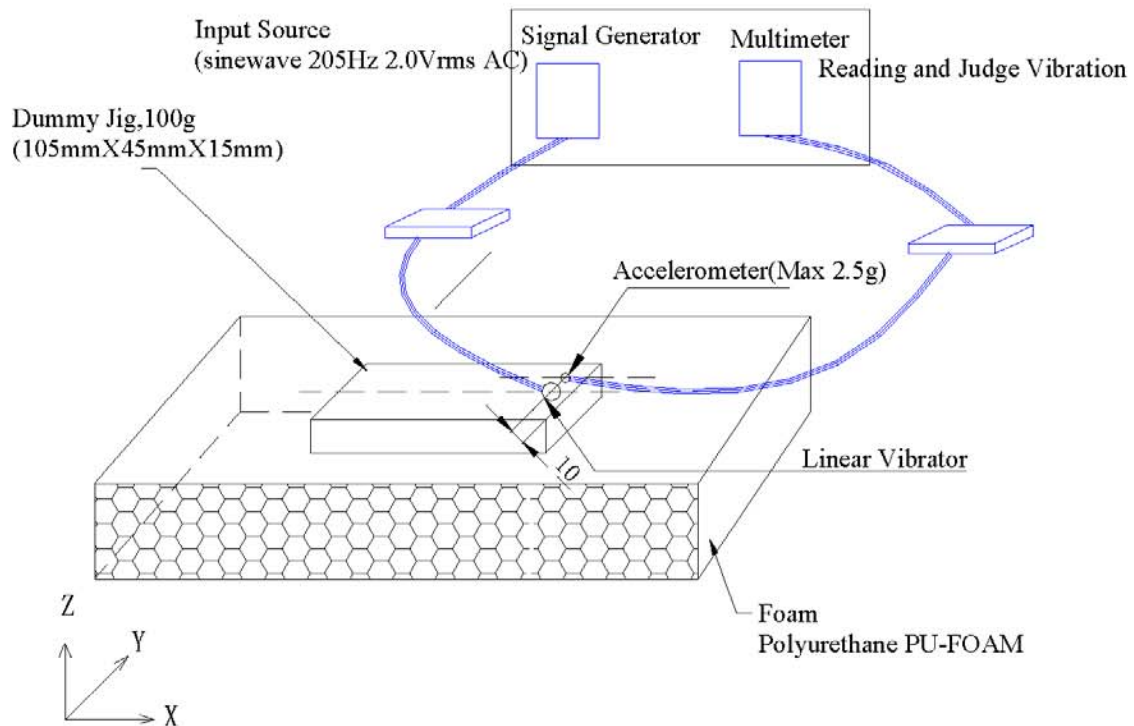
6.1 Climatic condition

The measurement at $25^\circ\text{C} \pm 3^\circ\text{C}$ & $65\% \text{RH} \pm 20\% \text{RH}$ is standard. If the judgment is not questionable, recognize measurement at 5°C to 35°C & relative humidity $45\% \text{RH}$ to $85\% \text{RH}$.

6.2 Input Voltage 2.0 Vrms

6.3 Input Frequency 205Hz

6.4 Suspending method



1. Place the 100g test jig on foam.

2. Attach the vibrator at the center of surface. Attach accelerometer at the center of the opposite surface.

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7. Recommended Stimulus

0-2.0Vrms 205Hz single Frequency sinewave. Vibration can be adjust by changing voltage.

8. Reliability Tests

Immediately after reliability test, the samples shall be stored under climatic conditions such as normally exist in ordinary rooms or laboratories. Unless otherwise noted, the recovery period shall be 4 hours at least before performance testing.

After reliability test, all samples must be meet the requirements as follow:

- 1.Acceleration: 1.0G Min
- 2.Rated current: 90mA max
- 3.No abnormalities in appearance and structure.

8.1 Temperature Shock:10 samples

-40°C / +85°C in each of 30min, Totle10 cycles. 20-30 seconds transition time.

8.2 Temperature Humidity Cycling : 10 samples

+65°C/-20°C in each of 6h,total 12cycles,90% RH at high temp, uncontrolled RH at low temp

8.3 High temperature storage:10 samples

+85°C, 168 hours

8.4 Low temperature storage: 10 samples

-40°C, 168 hours

8.5 Tumble Test: 10 samples

100 grams block, drop from 1 meteronto steel base, total 300 drops

8.6 Vibration Test: 10 samples

Samples that attached to a 100 gram fixture is vibrate with 2.2G, 10~55Hz/min for 10 minutes in each of X, Y, Z axis.

8.7 Free Fall Test:10 samples

The samples should be mounted to a 150 gram plastic fixture, drop to granite floor 1.52meters 36 times, 6 times every face.

8.8 Life Test: 20 samples

Samples should be operated on standard condition(100g jig on foam 2Vrms Sinewave205Hz) On(1s)/off(0.5s) for 840Hours.

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9. Caution for use

9.1 Do not Press vibrator with force more than 5N. It may lead to transformation of appearance or performance.

9.2 Do not pull wires to fetch vibrator. It may broken wires and lead to open circuit.

9.3 Do not use vibrator in follow environment. It may cause decline of performance or damage to vibrator.

9.3.1 Do not keep vibrator at high humidity or high temperature for extended too long times .

9.3.2 Do not use vibrator near magnetic device.

9.3.3 Do not use vibrator near erosion gas.

9.3.4 Do not drop vibrator into liquid.

9.4 There is strong magnetic on the surface of vibrator. Please pay attention to use it.

9.5 To use vibrator reliable, vibrator should be fixed to house firmly in vibrate direction. Or it may be cause bad noise.

9.6 Soft material(such as poron, poam etc.) is not adequate to fix vibrator in vibration direction. it can only be used as a auxiliary to reinforce reliability. Or it may be cause lower vibration.

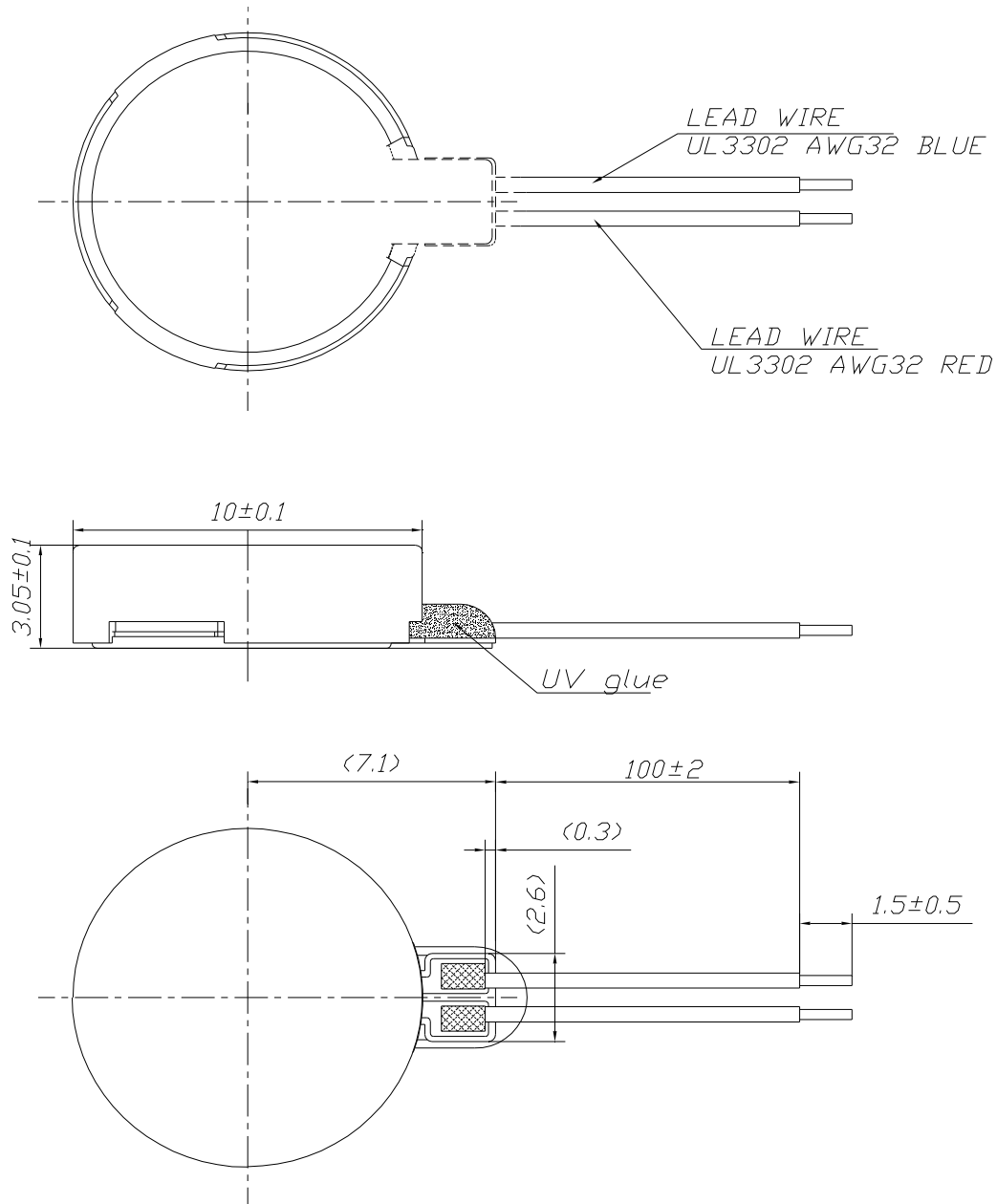
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10. Mechanical Drawing:



Marking Classification:

AAC: Manufactory

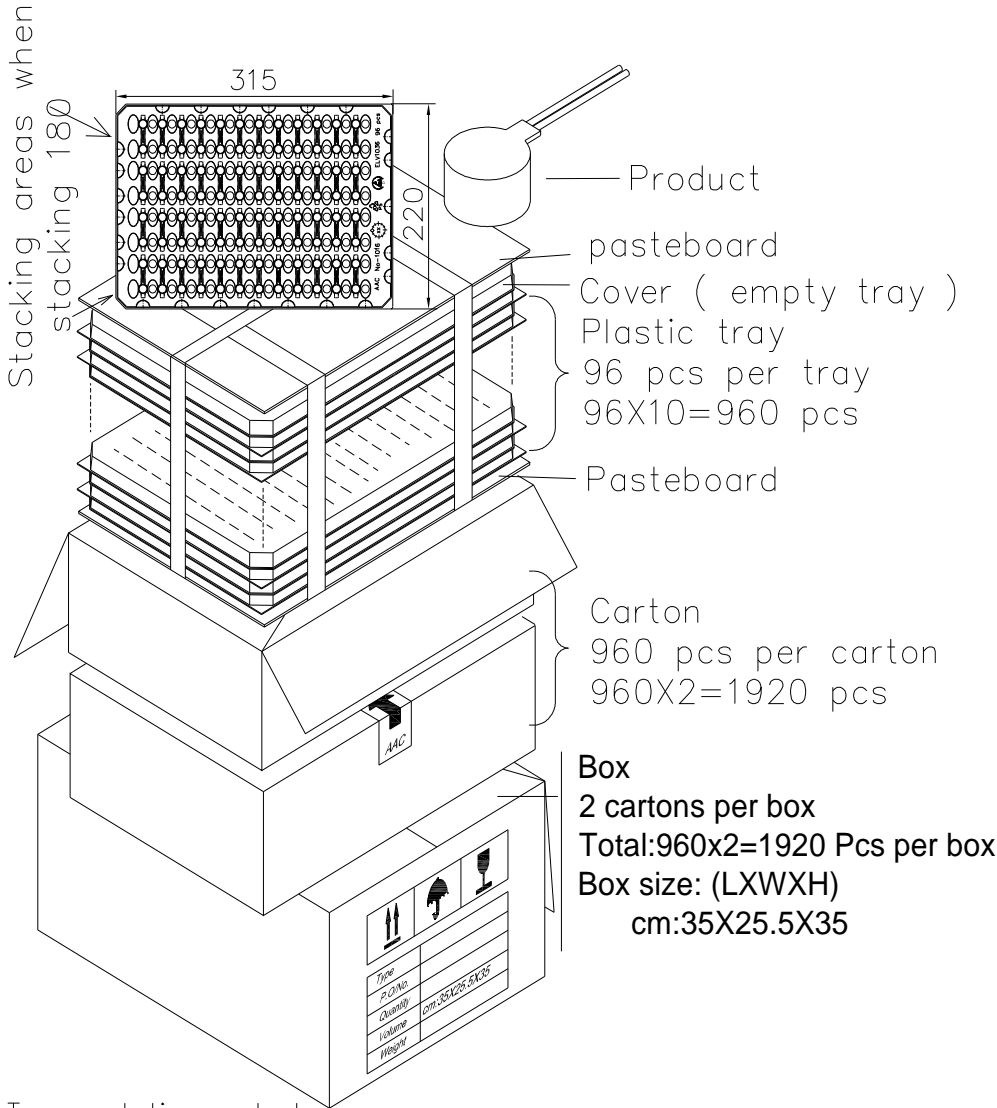
YY: Year MM: Month DD: Day E: Line

1030B: Model name

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11. Package



Transportation and storage:

1. Do not add heavy load on the package during shipping and storage. (stacking height ≤2m stacking weight 70 Kg)
2. Do not add strong shock during shipping and moving.
3. Keep the package in the room with stable temperature and humidity. (T: +5 °C? H?≤ 50 ?)
4. The package shelf life is 12 month from the date of original purchase.
5. The package do not directly contact to ground and wall during storage. ground 10cm? to wall 30cm
6. Keep the product on the tray and do not strong shock when moving ,if not will damage to gasket lead wirespring contact spring
- 7.Keep the product away from hazardous substances (gasfood).