

MODEL: B200: NON-DIRECTIONAL VIBRATION SENSOR:

Features: Sensing at small vibration of all-directions, XYZ axis.

Applications: Security circuits in bicycle lights, Burglar-proof tags etc.

Specifications:

ON-OFF Operation: Normal close type.  
"CHATER" at vibration of all-direction in all positions.  
"ON" at stop of vibration.

No. of Contacts: Electrode contacts, 2 pcs.

Electrode Contacts: Electric conduction ball contacts.

Air-Tightness: Non-water proof type.

Contact Capacity: Less 30mA(resistance load) at 6V DC(max.)

Resistance between Terminals: Less 5 ohms(Initial value: less 1 ohm) at 6V DC / 30mA.

Insulation Resistance: Over 10M ohms at 100V AC(open circuit)

Dielectric Strength: 60 seconds at 100V AC(open circuit)  
Leak current: less 1mA.

Temperature Range: -30°C to +80°C(but ice free places)

Endurance: After 10,000,000 cycles(to X axis), Resistance value is satisfied(inspection by no-load)

Vibration Proof: 10Hz. 1G, after vibrate each 8 hours(XYZ axis), Resistance value is satisfied(inspection by no-load)

Heat Proof: +80°C, after 96 hours, no abnormal.

Cold Proof: -30°C, after 96 hours, no abnormal.

Dropping Test: Drop 5 times from 100cm. height to a 30mm. thick plywood board.

Dimensions: 12.0 mm x 7.0 mm x 5.5 mm.

Notice: Hand soldering only.  
Low temperature solder under 240°C, within 3-second.  
Do not use Flow & Reflow solderings.  
In order to avoid mis-operating by un-necessary vibrations, the additional circuit is provided.

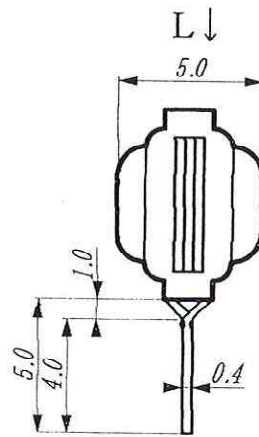
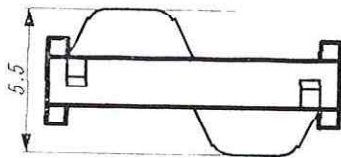
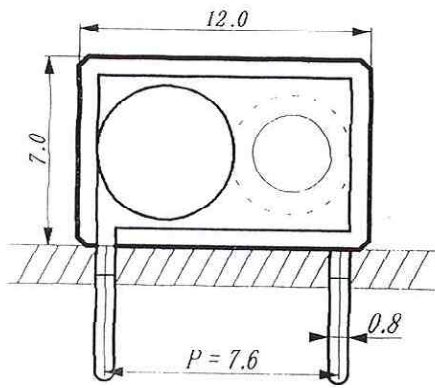
Specifications are subject to change without notice.

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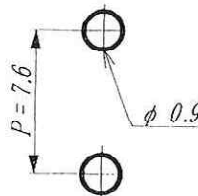
DIMENSIONS & OPERATIONS FOR B200 VIBRATION SENSOR:

Dimensions & Operations:

Dimensions:



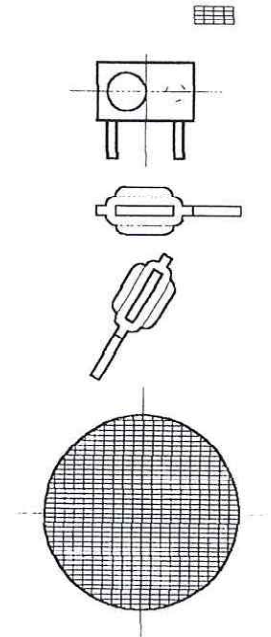
Hole size of Contacts  
for P.C.B.



Operations:

At all-directions.

1. Chater at Vibration.
2. ON at stop of Vibration.



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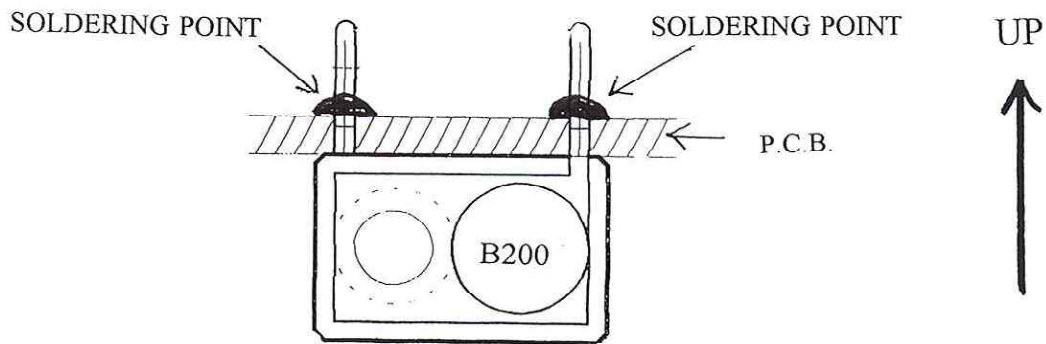
**HAND SOLDERING METHOD FOR B200 SENSOR:**

WHEN SOLDERING THE B200 SENSOR ON THE P.C.BOARD, SOLDERING TEMPERATURE SHOULD KEEP UNDER 240 °C FOR 3 SECOND. OTHERWISE IT MAY BE DAMAGED BECAUSE IT IS FEAR THAT FLUX WILL SOAK THROUGH THE SENSORS AND ALSO PLASTIC BODY WILL BE CHANGED WITH HEAT.

FOR YOUR INFORMATIONS, SEE THE FOLLOWING SKETCHES.

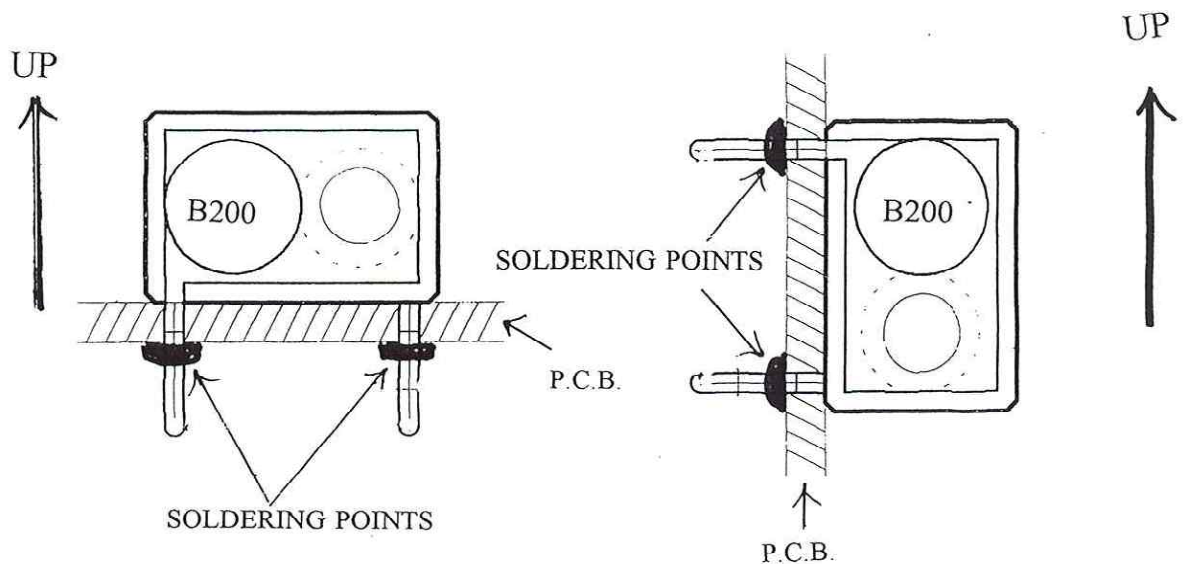
A. RECOMMENDED SOLDERING.

(THE FLUX WILL NOT SOAK THROUGH THE SENSORS)



B. NO-RECOMMEND:

(THE FLUX WILL SOAK THROUGH THE SENSORS)



**GENERAL REFERENCE CIRCUITS FOR  
B200 VIBRATION SENSOR:**

Circuit Conditions:

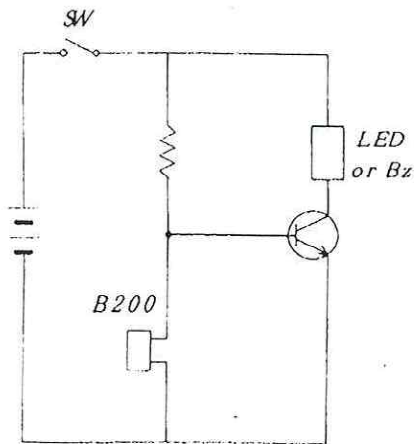
LED/Bz "OFF" at stop of vibration.

LED/Bz "ON" at vibration(Operating of all directions)

Remarks: When the customer will design the circuits to be used with B200 sensor, we recommend that the circuits will be designed and provided with the above "Circuit Conditions" due to saving of the consumption of battery.

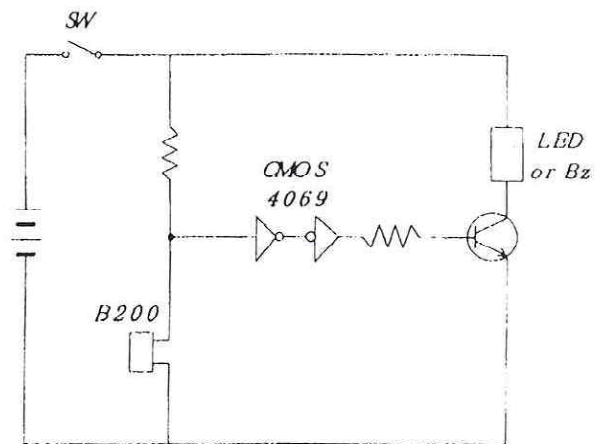
Circuit without Micro-computer:

Operating current: 0.1 ~ 10mA.



Circuit with Micro-computer:

Operating current: Few  $\mu$ A.



SIC:11/29/2002: