

Piezoelectric Ceramic Sensors (PIEZOTITE®)



Shock Sensor

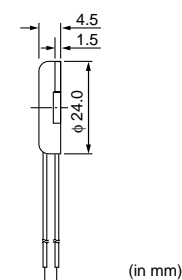
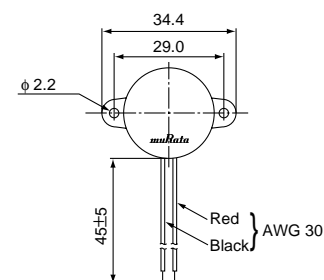
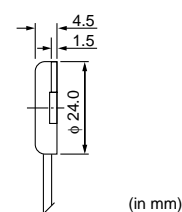
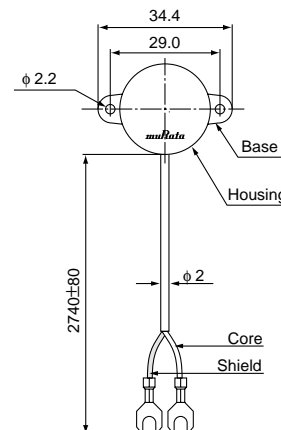
The piezoelectric element produces a voltage which is proportional to the acceleration of an impact or a vibration to which it is exposed. The shock sensor utilizes piezoelectric ceramics to convert the energy of impact into a proportional electrical signal. The piezoelectric shock sensor uses a "unimorph" diaphragm which consists of a piezoelectric ceramic disk laminated to a metal disk. The diaphragm is supported along its circumference in a housing. The sensor features compact, lightweight design, and is suitable for a wide range of applications requiring impact and vibration sensing.

■ Features

1. Compact, lightweight design.
2. High sensitivity assures it picks up even microlevel impact and vibration.
3. Rugged construction survive impact and vibration stresses.
4. Requires no bias voltage.

■ Applications

1. Car burglar sensors on doors.
2. Intruder sensors at windows or doors.
3. Burglar alarms for showcases and safes.
4. Vibration sensors for car audio equipment

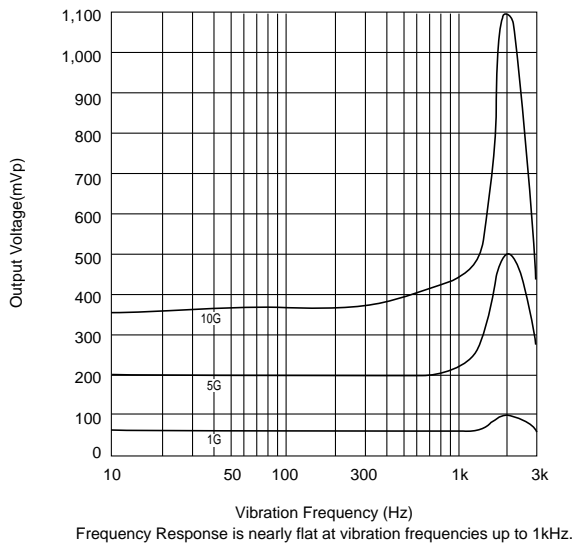


| Part Number | Output Voltage | Capacitance | Insulation Resistance |
|------------------|--|-------------|----------------------------|
| PKS1-4A1 | 40mV0p /G TYP. 4.08mV0p/ (m/s ²) TYP. (at 25°C, 20MΩ Load, 10Hz - 1kHz) | 10000pF±30% | 30MΩmin. (at 100V D.C.) |
| PKS1-4A10 | | 9000pF±30% | |

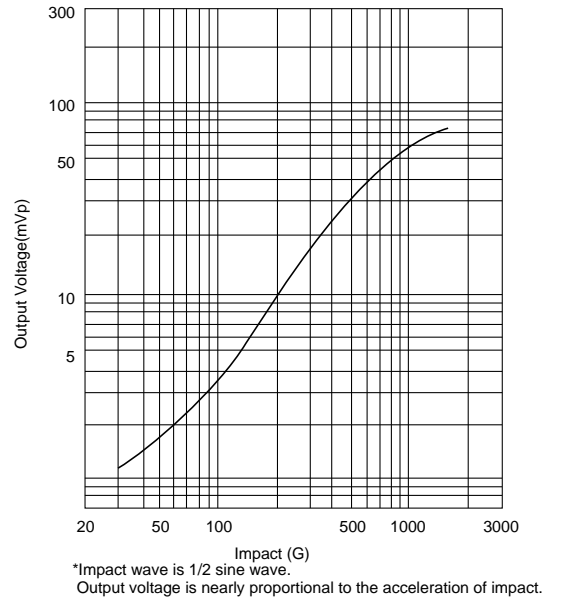
1G=9.8m/s²
Output Voltage is reference value.

■ Characteristics Data

● Frequency Response



● Output Voltage vs. Impact Response



■ Notice

1. The component should be fixed at the place where the main axis of sensor has same direction as the vibration axis.
2. Please avoid applying DC-bias by connecting DC blocking capacitor or some other way because, otherwise, the component may be damaged.

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