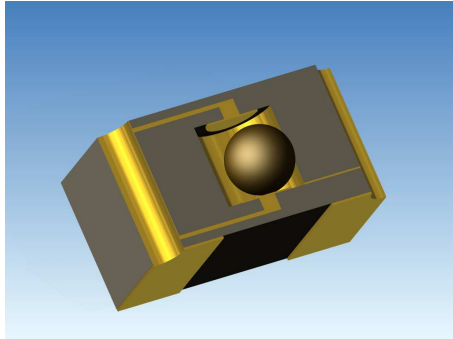


Data Sheet Micro Vibration Sensor MVS0608.02 (omnidirectional)

Version: V 2.1



connection pads from several mega ohms (>30M Ω) to below 100 ohms.

Material

Package

PCB laminate material (FR4, epoxy glass compound)

Inner contact material

Gold plated

Ball

Stainless steel, gold plated

Characteristic values

operational temperature*

-20°C – +70°C

Operating voltage

Max. +15 V

Current

Max. 2 mA

Reaction point

approx. 50 mg

Properties

- Size 2.45 mm x 2.85 mm x 1.7 mm
- Lead free
- R_{On} < 100 Ω
- noiseless
- protected against environmental stress
- automated SMD-mounting

Applications

- motion detection
- system wake-up – low power

Description

The micro vibration switch detects vibrations by means of a micro ball (d=0.8 mm).

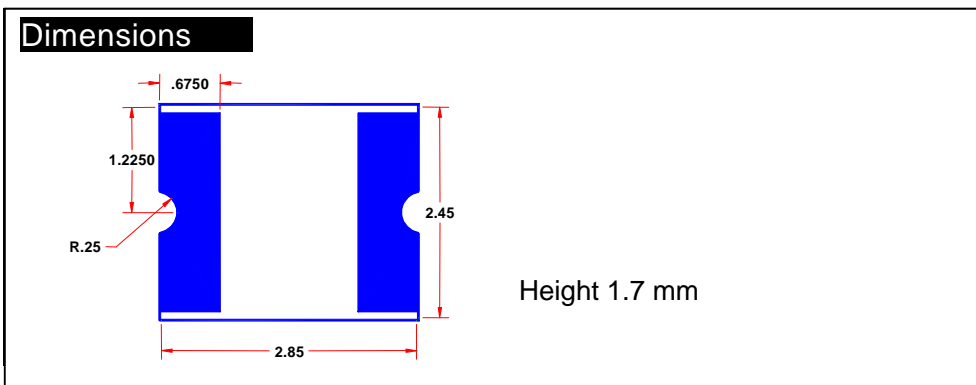
The ball bridges two contacts reducing the resistance between the two external

Soldering

Reflow Process 260°C, 10 s

Standard package

Reels with 1000 or 2000 pcs



RoHS compliance

The micro vibrations sensor is compliant to RoHS 2002/95/EG.

Qualification

High temperature and high humidity storage

Test time: 48h
Test temperature: 50°C
Humidity: 90%
: without condensation
no evidence of internal corrosion after the test.

High humidity storage

Test time: 96 h
Test temperature: 40°C
Test humidity: 95%
: no evidence of internal corrosion after the test.
no shape distortion

Temperature cycle storage

Test cycle: 8 cycles, T1 = 65°C for 6h, T2 = -20°C for 6h,
temperature change rate = 3K/min
: no evidence of internal corrosion after the test.
no shape distortion

Non Operation Half Sine Shock

Test cycle: Acceleration 25g at 6msec pulse width
1000 cycles pos. 1000cycles neg.; 1Shock/s; 3 axis: X, Y, Z

Non Operational Vibration Test

Test cycle: Sinus 10 ... 300Hz; Elongation 0.25mm / 0.25g; 5 cycles; 1 axis
Frequency area A: 10 – 22.28Hz, amplitude in A: 0.25 mm
Frequency area B: 22.28 - 300Hz, acceleration in B: 0.25g
Sweep speed: 1 Octave/min, Cycles: 10
Time per Sweep: 4.9 min

Non Operational Vibration Test

Test cycle: Sinus 10 ... 500Hz; Elongation 3.0mm / 1.5g; 5 cycles; 1 axis
Frequency area A: 10 – 15.76Hz, Amplitude in A: 3.0mm
Frequency area B: 15.76 - 500Hz, Acceleration in B: 1.5 g
Sweep speed: 1 Oktave/min, Number of sweeps: 10
Time per Sweep: 5.62 min

