Ultra low power embedded accelerometer

LVEP050-TO5

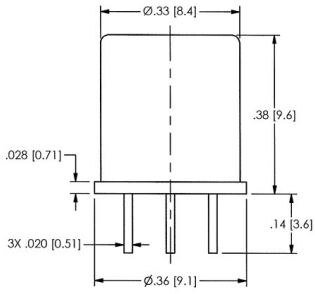
SPECIFICATIONS

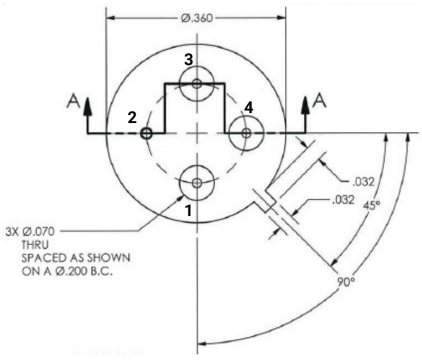
Sensitivity, ±5%, 25°C		50 mV/g
Acceleration range		25 g peak
Amplitude nonlinearity		1%
Frequency response, nominal[1]:	**±5%**	3 - 5,000 Hz
	±10%	2 - 7,000 Hz
	±3 dB	1 - 11,000 Hz
Resonance frequency		17 kHz
Transverse sensitivity, max		5% of axial
Sensitivity variation with temp:	**–25°C**	+5%
	+120°C	-15%
Power requirement:		
Voltage source		3.0 - 5.5 VDC
Quiescent current, nominal		60 µA
Electrical noise, nominal, equiv. g:		
Broadband	**2.5 Hz to 25 kHz**	700 µg
Spectral	**10 Hz**	35 µg/√Hz
	100 Hz	12 µg/√Hz
	1,000 Hz	6 µg/√Hz
Output impedance, max		1,000 Ω
Bias output voltage, settling time[2], 25°C		<10 ms
Including temp effects		1.5 VDC ±5%
Grounding		none: pellet case must be isolated from mounting surface
Electromagnetic sensitivity, equiv. g, max		200 µg/gauss
Sensing element design		PZT, shear
Sealing		hermetic
Weight		3.2 grams
Case material		304L stainless steel
Header material		Kovar
Mounting		epoxy; pellet must be isolated from mounting surface or TO5 4-pin mount

Notes: [1] Frequency response when epoxy mounted using flat shield surface.
[2] Based on BOV within 10% of nominal BOV at 25°C.
Accessories supplied: calibration data

Key features

- 180 µW power consumption
- Fast BOV settling time of <10 ms
- Standardized TO5 semiconductor package





Connections	
Function	**Pin**
common	1
case	2
output	3
power	4

CE

Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

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