Ultra low power embedded accelerometer

LVEP050-TO5

SPECIFICATIONS

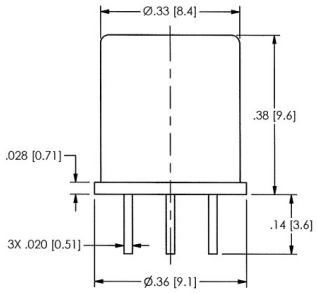
Sensitivity, ±10%[1], 25°C		50 mV/g
Acceleration range		25 g peak
Amplitude nonlinearity		1%
Frequency response, nominal2:	**±5%**	3 - 5,000 Hz
	±10%	2 - 7,000 Hz
	±3 dB	1 - 12,500 Hz
Resonance frequency, nominal		>25 kHz
Transverse sensitivity, max		7% of axial
Sensitivity variation with temp:	**–25°C**	+5%
	+120°C	-15%
Power requirement:		
Voltage source		3.0 - 5.5 VDC
Quiescent current, nominal		60 µA
Power-down mode		0 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[3], nominal		350 µs
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 TO-5 4-pin mount

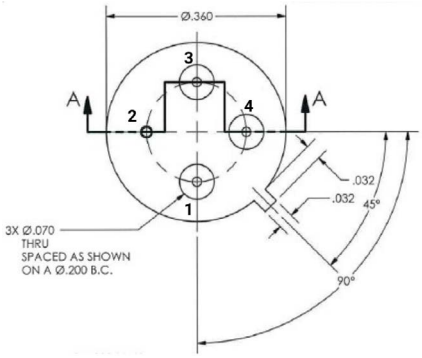
Notes: [1] 5% sensitivity tolerance available upon request.
[2] Frequency response when epoxy mounted using flat shield surface.
[3] Based on BOV within 10% of nominal BOV at 25°C. Power off for 30 sec minimum for fastest startup.

Accessories supplied: calibration data

Key features

- 180 µW power consumption
- Fast startup time, fast BOV settling time of 350 µs
- Standardized TO-5 semiconductor package





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

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