

Ultra low power embedded accelerometer

LVEP025-TO5

SPECIFICATIONS

Sensitivity, $\pm 10\%$¹, 25°C		25 mV/g
Acceleration range		50 g peak
Amplitude nonlinearity		1%
Frequency response, nominal²:	$\pm 5\%$	1.5 - 5,000 Hz
	$\pm 10\%$	1.0 - 7,000 Hz
	± 3 dB	0.5 - 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 μ A
Electrical noise, nominal, equiv. g:		
Broadband	2.5 Hz to 25 kHz	950 μ g rms
Spectral	10 Hz	55 μ g/ $\sqrt{\text{Hz}}$
	100 Hz	17 μ g/ $\sqrt{\text{Hz}}$
	1,000 Hz	7.5 μ g/ $\sqrt{\text{Hz}}$
Output impedance, max		1,000 Ω
Bias output voltage settling time³, nominal		350 μ s
Including temp effects		1.5 VDC $\pm 5\%$
Grounding		none: pellet case must be isolated from mounting surface
Electromagnetic sensitivity, equiv. g, max		200 μ g/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.

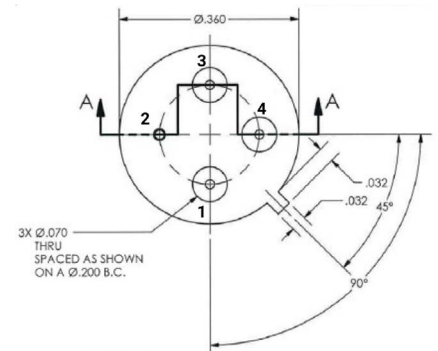
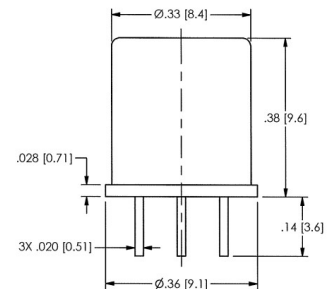
² Frequency response when epoxy mounted using flat shield surface.

³ Based on BOV within 10% of nominal BOV at 25°C. Power off for 30 sec minimum for fastest startup.



Key features

- 180 μ W power consumption
- Fast startup time, fast BOV settling time of 350 μ s
- Standardized TO-5 semiconductor package



Connections	
Function	Pin
common	1
case	2
output	3
power	4

