

Ultra low power embedded accelerometer

LVEP100-TO5

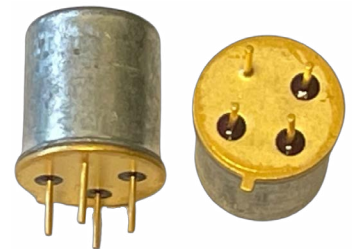
SPECIFICATIONS

Sensitivity, $\pm 10\%$¹, 25°C	100 mV/g
Acceleration range	14 g peak
Amplitude nonlinearity	1%
Frequency response, nominal²:	$\pm 5\%$ 6 - 5,000 Hz $\pm 10\%$ 4 - 7,000 Hz ± 3 dB 2 - 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
Power-down mode	0 μ A
Electrical noise, nominal, equiv. g:	
Broadband 2.5 Hz to 25 kHz	600 μ g
Spectral 10 Hz	24 μ g/ \sqrt Hz
100 Hz	8 μ g/ \sqrt Hz
1,000 Hz	4 μ g/ \sqrt 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.

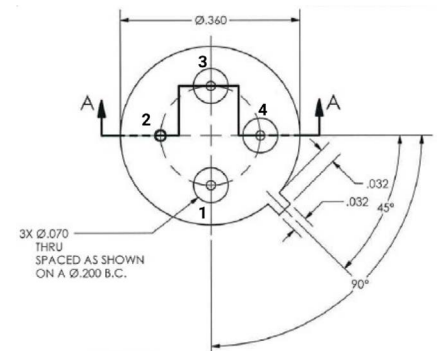
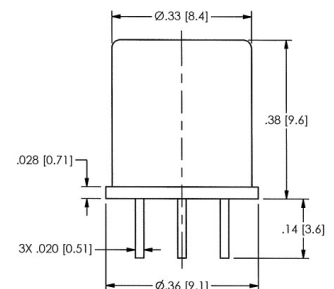
² Frequency response when epoxy mounted using flat shield surface.

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



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