

Ultra low power embedded accelerometer

LVEP100-TO5

SPECIFICATIONS

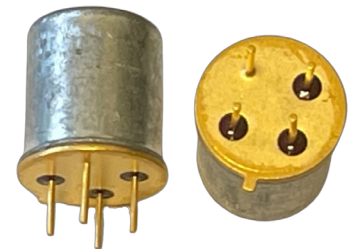
Sensitivity, $\pm 10\%$¹, 25°C		100 mV/g
Acceleration range		14 g peak
Amplitude nonlinearity		1%
Frequency response, nominal²:	$\pm 5\%$	6 - 5,000 Hz
	$\pm 10\%$	4 - 7,000 Hz
	± 3 dB	2 - 12,500 Hz
Resonance frequency, nominal		>25 kHz
Transverse sensitivity, max		5% of axial
Sensitivity variation with temp:	-25°C	+5%
	+120°C	-15%
Power requirement:		
Voltage source		3.0 - 5.5 VDC
Quiescent current, nominal		60 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 TO5 4-pin mount	

Notes: ¹ 5% sensitivity tolerance available upon request.

² Frequency response when epoxy mounted using flat shield surface.

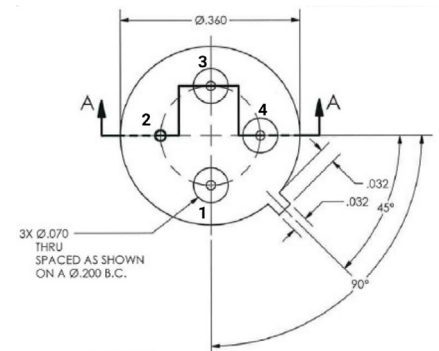
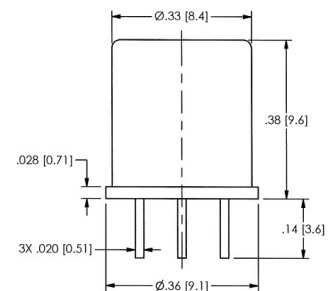
³ Based on BOV within 10% of nominal BOV at 25°C. Power off for 30 sec minimum for fastest startup.

Accessories supplied: calibration data



Key features

- 180 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.