



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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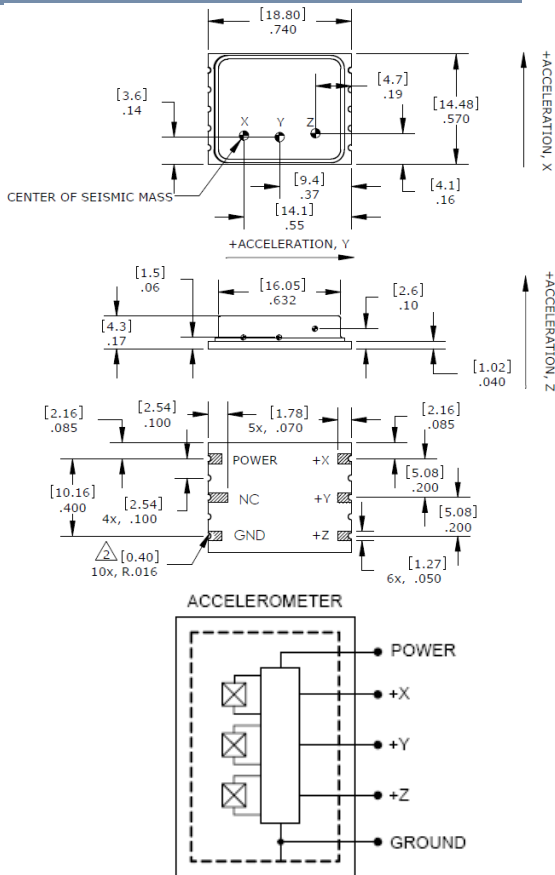
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MODEL 832M1 ACCELEROMETER



DIMENSIONS



SPECIFICATIONS

- Triaxial Piezoelectric Accelerometer
- $22\mu\text{A}$ Current Consumption
- Wide Bandwidth to 6kHz
- Circuit Board Mountable

The Model 832M1 is a low cost, board mountable triaxial accelerometer. Featuring stable piezo-ceramic crystals, the accelerometer incorporates full power and signal conditioning with a maximum current consumption of 22 micro-amps. The model 832M1 is available in $\pm 25\text{g}$ to $\pm 500\text{g}$ ranges and provides a flat frequency response up to greater than 6kHz. The standard model 832 offers the same envelope with a lower maximum current consumption of 4 micro-amps.

FEATURES

- $\pm 25\text{g}$ to $\pm 500\text{g}$ Dynamic Range
- Low Cost Triaxial
- Hermetically Sealed
- Piezo-ceramic Crystals
- -40° to $+125^\circ\text{C}$ Operating Range
- Single Axis Configurations Available

APPLICATIONS

- Asset Monitoring
- Data Loggers
- Impact Monitoring
- Machine Health Monitoring
- System Wake-Up Switch
- Embedded Applications

PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 3.3Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC

	±25	±50	±100	±200	±500	Notes
Range (g)	±25	±50	±100	±200	±500	
Sensitivity (mV/g)	50.0	25.0	12.5	6.25	2.5	±30%
Frequency Response (Hz)	2-6000	2-6000	2-6000	2-6000	2-6000	±2dB
Natural Frequency (Hz)	>10000	>10000	>10000	>10000	>10000	
Non-Linearity (%FSO)	±2	±2	±2	±2	±2	
Transverse Sensitivity (%)	<10	<10	<10	<10	<10	
Shock Limit (g)	5000	5000	5000	5000	5000	

ELECTRICAL

	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	
Bias Voltage (Vdc)	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	
Total Supply Current (µA) ¹	<22	<22	<22	<22	<22	
Excitation Voltage (Vdc) ³	3.3 to 5.5	3.3 to 5.5	3.3 to 5.5	3.3 to 5.5	3.3 to 5.5	
Output Impedance (Ω)	<100	<100	<100	<100	<100	
Insulation Resistance (MΩ)	>100	>100	>100	>100	>100	@100Vdc
Broadband Noise (µV)	110	90	50	40	50	2Hz-10kHz
Spectral Noise (µg/√Hz)	120	160	160	160	600	@ 10Hz
Spectral Noise (µg/√Hz)	40	40	40	40	160	@ 100Hz
Spectral Noise (µg/√Hz)	20	16	16	16	80	@ 1000Hz
Warm-Up Time (msec)	30					
Shielding	100%					
Ground Isolation	Isolated from Mounting Surface					

ENVIRONMENTAL

Temperature Response (%)	-20/+30 from -40°C to +125°C
Operating Temperature (°C)	-40 to +125
Storage Temperature (°C)	-40 to +125

PHYSICAL

Sensing Element	Ceramic (shear mode)
Case Material	Ceramic Base, Nickel Silver Cover
Weight (grams)	3.0

¹ A lower current consumption of 4 micro-amps is available on model 832.

² The model 832M1 is not to be reflow soldered at high temperature, manual soldering is recommended. See application note.

³ The model 832M1 can be operated with 2.8V excitation but the full-scale range will be limited.

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 100Hz

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ORDERING INFORMATION

PART NUMBERING Model Number+Range

832M1-GGGG
|
| _____ Range (0200 is 200g)

Example: 832M1-0200
 Model 832M1, 200g

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