

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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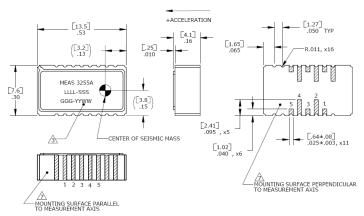








## dimensions



# **MODEL 3255A ACCELEROMETER**

#### **SPECIFICATIONS**

- PC Board Mountable Accelerometer
- Amplified Output
- Temperature Compensated
- High Over-Range Protection

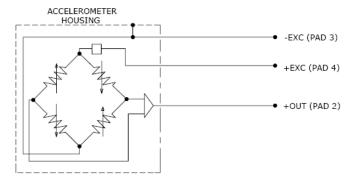
The Model 3255A is a signal conditioned board mountable MEMS accelerometer available in ±25g to ±500g ranges. The package can be mounted in one of two orientations, allowing the measurement axis to be either parallel or perpendicular to the mounting surface without the use of costly brackets. The accelerometer incorporates integral temperature compensation and offers a flat frequency response from DC to 1500Hz.

#### **FEATURES**

- ±25g to ±500g Ranges
- Three Axis Mounting Options
- Surface Mount Package
- DC Response, Gas Damping
- Hermetically Sealed
- 5Vdc Excitation

#### **APPLICATIONS**

- Impact & Shock Testing
- Vibration & Shock Monitoring
- Embedded Applications
- Transportation Measurements



US Patents 5,103,667; 5,253,510; 5,445,006; 5,503,016; and 5,616,863 apply

#### PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 5Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters DYNAMIC Range (g) Sensitivity (mV/g) ±10% Frequency Response (Hz) Natural Frequency (Hz) Non-Linearity (%FSO) Transverse Sensitivity (%) Damping Ratio Shock Limit (g)	±25 80.0 0-800 4000 ±0.5 <3 0.7 5000	±50 40.0 0-1000 4000 ±0.5 <3 0.7 5000	±100 20.0 0-1200 6000 ±0.5 <3 0.7 5000	±250 8.0 0-1500 8000 ±0.5 <3 0.6 5000	±500 4.0 0-1500 10000 ±0.5 <3 0.5 5000	Notes @5Vdc Excitation¹ ±5% <1 Typical Typical
ELECTRICAL Zero Acceleration Output (V) Excitation Voltage (Vdc) <sup>1</sup> Excitation Current (mA) Bias Voltage (Vdc) Full Scale Output Voltage (Vdc) Output Impedance (Ω) Insulation Resistance (MΩ) Residual Noise (μV RMS) Ground Isolation	2.5±0.10 2.7 to 5.5 <5 2.5 ±2.0 <100 >100 800 Isolated from	2.5±0.10 2.7 to 5.5 <5 2.5 ±2.0 <100 >100 400 Mounting Surfa	2.5±0.10 2.7 to 5.5 <5 2.5 ±2.0 <100 >100 400	2.5±0.10 2.7 to 5.5 <5 2.5 ±2.0 <100 >100 400	2.5±0.10 2.7 to 5.5 <5 2.5 ±2.0 <100 >100 400	Single-Ended @100Vdc Passband
ENVIRONMENTAL Thermal Zero Shift (%FSO/°C) Thermal Sensitivity Shift (%/°C) Operating Temperature (°C) Compensated Temperature (°C) Storage Temperature (°C)	±0.018 ±0.021 -54 to +121 -20 to +85 -54 to +121	±0.018 ±0.021	±0.018 ±0.021	±0.018 ±0.021	±0.018 ±0.021	
PHYSICAL Case Material Weight (grams) Mounting	Ceramic 1.5 Solder					

<sup>&</sup>lt;sup>1</sup>Output is ratiometric with excitation voltage.

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

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<sup>&</sup>lt;sup>2</sup>Do not electrically connect undesignated pads in sensor application. Except pad 5 may be tied to pad 4 without affecting performance.

<sup>&</sup>lt;sup>3</sup>Maximum ratings without damage:

Excitation voltage: +5.5Vdc

ESD protection: 4kV

Solder reflow temperature: +260°C (10 seconds)

<sup>&</sup>lt;sup>4</sup>Adhesive underfill suggested for high-g applications.

#### **ORDERING INFO**

PART NUMBERING Model Number+Range

3255A-GGG

I\_\_\_\_\_Range (050 is 50 g)

Example: 3255A-050

Model 3255A, 50g

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