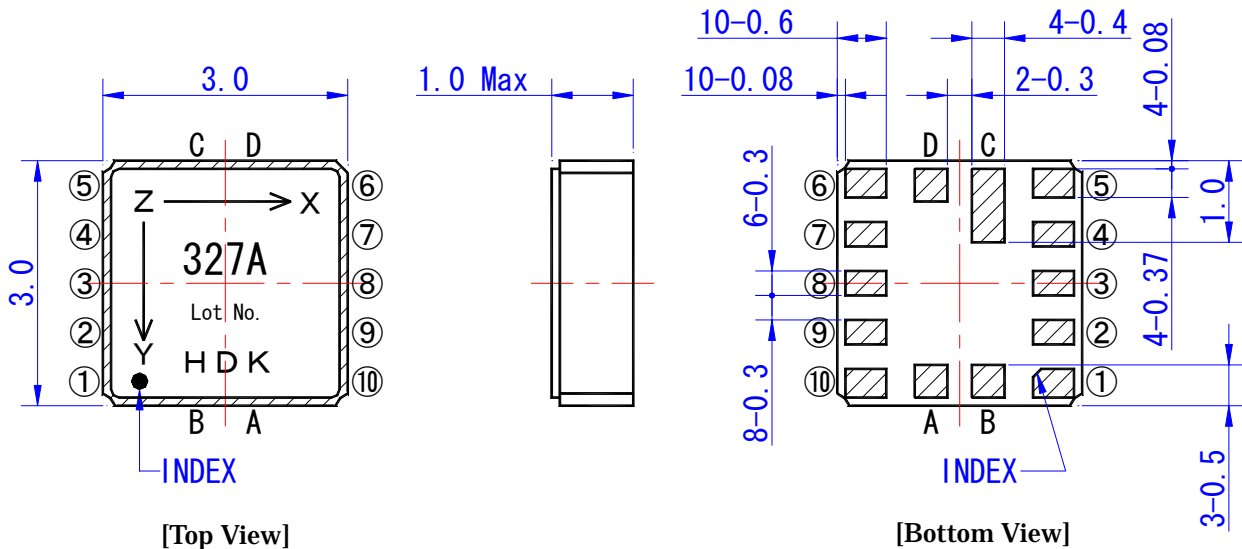




Piezoresistive 3-Axis Acceleration Sensor

HAAM-327A

■ Outline & Dimensions



■ Terminal Assignment

| No | Pin | Function |
|----|---------|---|
| 1 | GND | Ground |
| 2 | STANBY | L:Standby / H:Operating |
| 3 | INT2 *1 | Interrupt Signal 2 When one of either X or Y or Z output exceeds preset threshold (1.5G), this terminal outputs High. Otherwise, it stays Low. |
| 4 | INT1 *1 | Interrupt Signal 1 When all X, Y, Z outputs go below set threshold (0.4G), this terminal outputs High. Otherwise, it stays Low. |
| 5 | T OUT | Temperature Sensor Output |
| 6 | VDD | Power Supply |
| 7 | LCA | Connect capacitor for internal circuit. |
| 8 | X OUT | Analog Output X |
| 9 | Y OUT | Analog Output Y |
| 10 | Z OUT | Analog Output Z |

*1 : Interrupt thresholds are set up individually at our factory.

*2 : Please leave A~D unconnected.



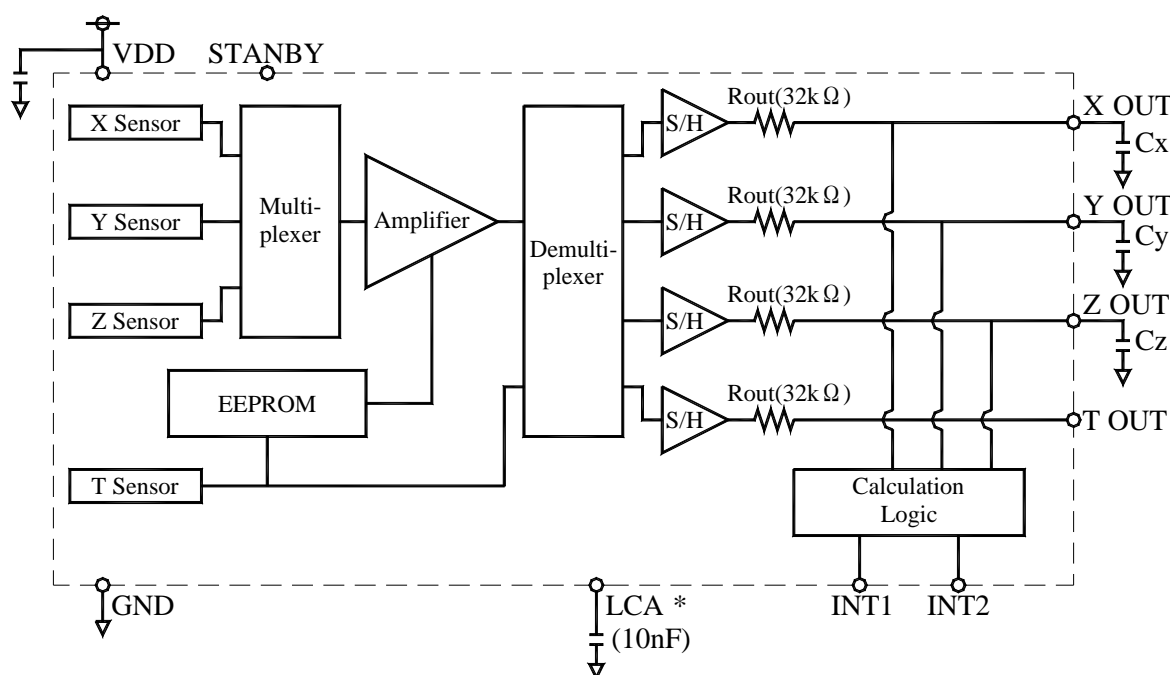
Piezoresistive 3-Axis Acceleration Sensor

HAAM-327A

Outline & Dimensions

| Item | Rating | | | Unit | Note |
|---|--------|------|-------|-------|------------------------------------|
| | Min | Typ | Max | | |
| Operating Condition | | | | | |
| Storage Temperature Range | -40 | | 85 | °C | |
| Operating Temperature Range | -25 | | 75 | °C | |
| Supply Voltage | 2.2 | | 3.6 | V | Ratiometric |
| Supply Current | | 0.7 | 1 | mA | at Mode A, Vdd=3.0V |
| | | 0.35 | 0.5 | mA | at Mode B, Vdd=3.0V |
| Supply Current at Standby Mode | | 1 | 5 | uA | |
| Turn-on Time (at C=0.01μF) | | 2 | | msec | Until it becomes 99% |
| Shock Resistance | 5000 | | | G | |
| Electrical Characteristics (Ta=25°C, Vdd=3.0V) | | | | | |
| Rated Acceleration | -3 | | 3 | G | |
| Offset Voltage | 1.425 | 1.5 | 1.575 | V | Ratiometric against Supply Voltage |
| Offset Temperature Characteristics | -10 | | 10 | %FS/G | △ from 25°C |
| Sensitivity | 297 | 330 | 363 | mV/G | Ratiometric against Supply Voltage |
| Linearity of sensitivity | -1 | | 1 | %FS | |
| Sensitivity Temperature Characteristics | -3 | | 3 | %FS/G | △ from 25°C |
| Cross-Axis Sensitivity | -5 | | 5 | % | |
| Resonant Frequency | DC | | 500 | Hz | at Mode A |
| | | | 250 | Hz | at Mode B |
| Temperature Sensor Output (Vdd=3.0V) | | | | | |
| Offset Voltage | | 1.5 | | V | Ratiometric against Supply Voltage |
| Sensitivity | | 10 | | mV/°C | Ratiometric against Supply Voltage |
| Output Accuracy | -3 | | 3 | °C | for -25~75°C |

Block Diagram



*Please connect 10nF (tentative value) capacitor to LCA for use.