

## 3-Axial Capacitive Acceleration Sensor

# Model 1 **ACA302/ACB302** with Amplifier

## One Device to detect Dynamic/Static 3 axis Acceleration

- ★3-Axis Acceleration Sensor on a single structure
- ★2.7v to 5.5v DC Power Supply, Low Cost
- ★Small & Light Size (Amplifier circuit loading)
- ★Dynamic/Static Acceleration
- ★Low Current Consumption (ACB302)

### APPLICATIONS

Tilt Sensing, Security System, Game Pad  
Car alarm system, Wellness equipment,  
Car Navigation, Projector  
Stability Control: Robotic Toy,



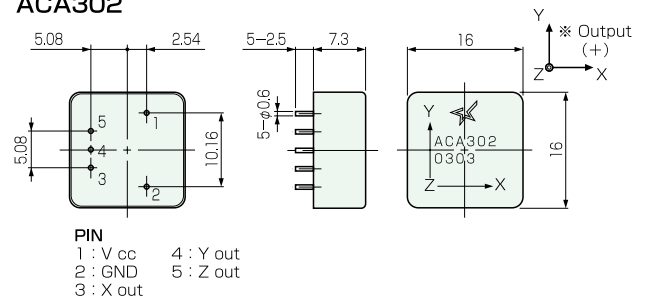
### SPECIFICATIONS

Parameter	ACA302	ACB302	Unit
Acceleration Range	±19.6 [±2]	±19.6 [±2]	m/s <sup>2</sup> [G]
Sensitivity (V <sub>cc</sub> =3.0V)	30.6 [300]	10.2 [100]	mV/(m/s <sup>2</sup> ) [mV/G]
Supply Voltage (V <sub>cc</sub> )	2.7 ~ 5.5	2.7 ~ 5.5	VDC
Rated Voltage	3.0	3.0	VDC
Offset Voltage	1.5 (V <sub>cc</sub> /2)	1.5 (V <sub>cc</sub> /2)	V
Frequency Response	DC ~ 15	DC ~ 15	Hz
Linearity	6	2.5	%
Transverse Sensitivity	10	4	%
Current Consumption (V <sub>cc</sub> =3.0V)	1.4	0.1	mA
Operating Temperature	-20 ~ +70	-20 ~ +70	°C
Storage Temperature	-40 ~ +85	-40 ~ +85	°C
Dimension (W×D×H)	16×16×7.3	9.0×9.0×7.0	mm
Mass	3.8	1.3	g

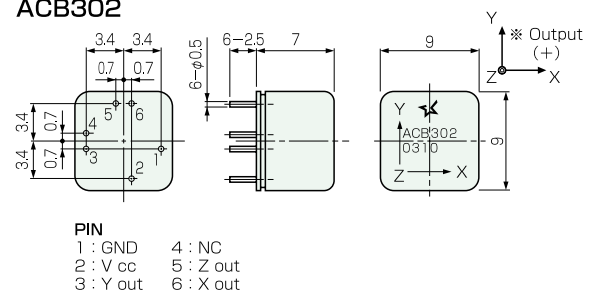
※The indicated above are the typical values. For precise values, see the specification sheet.  
※Specifications are subject to change without prior notice.

### OUTLINE DIAGRAM

#### ACA302



#### ACB302



※Output (+) mean that acceleration increase in the direction of allow.