

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,



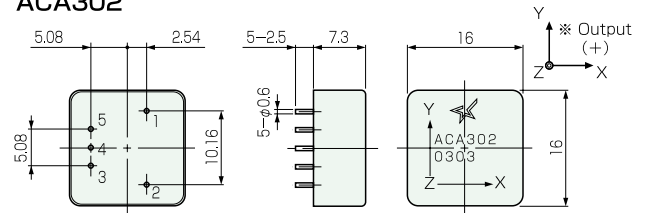
SPECIFICATIONS

Parameter	ACA302	ACB302	Unit
Acceleration Range	±19.6 [±2]	±19.6 [±2]	m/s ² [G]
Sensitivity (V _{cc} =3.0V)	30.6 [300]	10.2 [100]	mV/(m/s ²) [mV/G]
Supply Voltage (V _{cc})	2.7 ~ 5.5	2.7 ~ 5.5	VDC
Rated Voltage	3.0	3.0	VDC
Offset Voltage	1.5 (V _{cc} /2)	1.5 (V _{cc} /2)	V
Frequency Response	DC ~ 15	DC ~ 15	Hz
Linearity	6	2.5	%
Transverse Sensitivity	10	4	%
Current Consumption (V _{cc} =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.

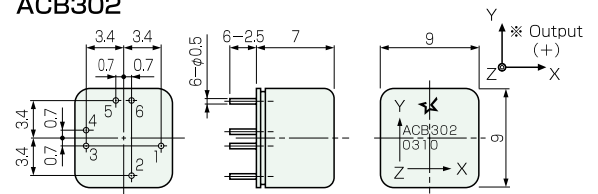
OUTLINE DIAGRAM

ACA302



PIN
1 : V_{cc} 4 : Y out
2 : GND 5 : Z out
3 : X out

ACB302



PIN
1 : GND 4 : NC
2 : V_{cc} 5 : Z out
3 : Y out 6 : X out

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