

# Model SE107

## Silicon Capacitive Accelerometer Dies

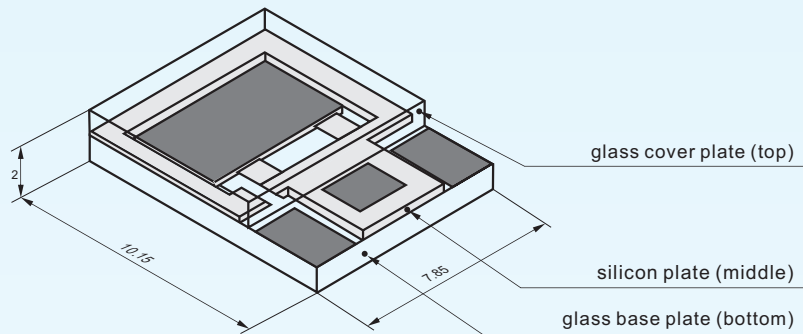
BCM SE107 is a silicon differential capacitive accelerometer die, suitable for integration to accelerometers of dynamic range of  $\pm 2$  g.

The SE107 dies are made from high quality mono crystalline silicon wafer and are in mass production by MEMS technology. CAD is employed in design and simulation processes and the SE107 die is characterized of high reliability and stability. It features a symmetrical structure of low stress effect and low temperature influence on acceleration measurement.

Dedicated calibration and quality control processes guarantee the performance of SE107 to its specifications.



SE107 silicon differential capacitive sensor wafer

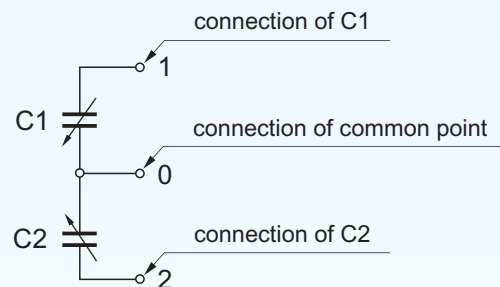


sketch of SE107 accelerometer die

### Features:

- symmetrical structure
- measuring range of  $\pm 2$  g;
- shock protection up to  $\pm 2000$  g
- working frequency up to 10 kHz
- low stress effect and low temperature influence.

### Electrical connections:



### Specifications:

parameters	units	specifications
measuring range	g	$\pm 2$
overload (shock)	g	$\pm 2000$
basic capacitance	pF	$30 \pm 10$
output sensitivity	pF	$\geq 5/g$ (tolerance $\pm 1/g$ )
zero offset	pF	$\leq 2, \leq 5$ (standard), $\leq 10$
fatigue life	cycle	$10^8$
working frequency	kHz	$\leq 10$
operating temperature range	$^{\circ}\text{C}$	$-45 \sim +125$

The listed specifications are subject to change without prior notice.

**How to order:** model - range - O/P - offset

**ordering code** example: SE107 -  $\pm 2$  g - 5pF/g - 5pF

