

MLX90248

POSITION SENSORS



The hammerhead shark is able to detect electronic signals of no more than half a billionth of a volt. The process uses specialized electroreceptors to detect and locate the source of an external electric field in its environment. What better animal to reflect our sensing capacities?

MICROPOWER & OMNIPOLAR™ HALL-EFFECT SWITCH

The MLX90248 is most commonly found in applications for detecting the position (open/close action) or presence of a magnetic field in any application. The goal of this detection is to provide a signal to the microcontroller to indicate the status of a system or activate the full application in case of magnetic change. The MLX90248 exhibits omnipolar magnetic characteristics. This means that the device reacts to both North and South magnetic pole. The purpose is to detect the presence of any magnetic field applied on the device. The “micropower” feature makes the MLX90248 especially suitable for battery-powered device as it combines low voltage operation and low current consumption. By using a sleep/awake strategy managed internally, the power consumption is drastically reduced.

APPLICATIONS

- ✓ Battery-operated / Handheld Appliances
- ✓ Screen On/Off Control (Head-up display, Camcorders, Cameras, Portable Media Players...)
- ✓ Enable / Disable control (Cameras Lens Cover, Pop-Up Camera Flash, VoIP phones...)
- ✓ Appliances with Low Refresh Rate
- ✓ Open/Close Detection (Refrigerators, Dishwashers, Washing Machines, Rice cookers, Steamers,...)
- ✓ Liquid Level Detection (Coffee Machines)
- ✓ Anti-tempering for energy meters
- ✓ Electric/Electronic Lock Position Detection
- ✓ Proximity sensing with low energy requirements

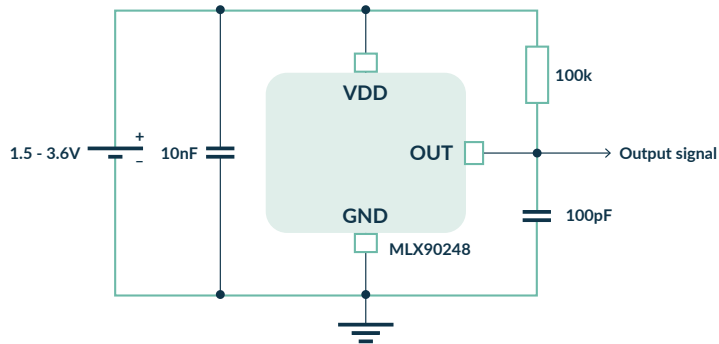


KEY FEATURES

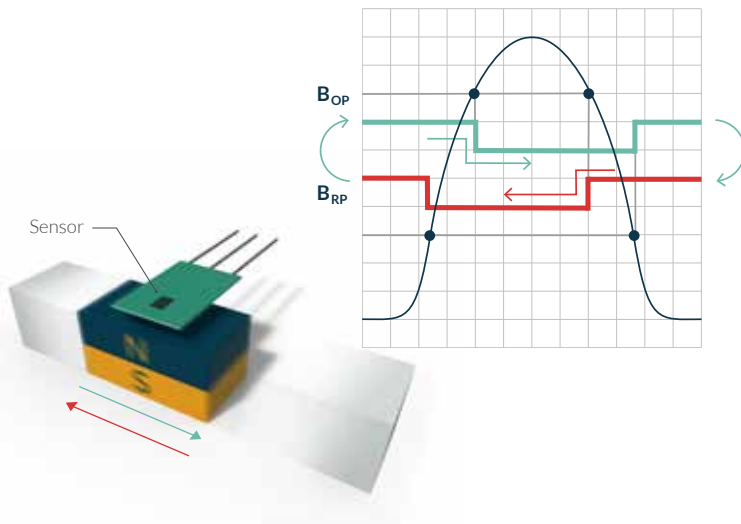
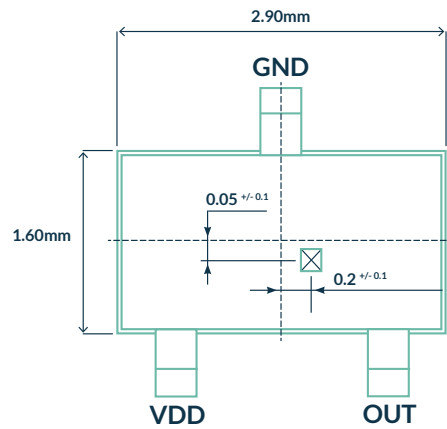
- ✓ Micropower Consumption: 5uA@3V; 3uA@1.5V
- ✓ Omnipolar™: North & South Pole Active
- ✓ High Sensitivity: 6mT max (60Gauss)
- ✓ Operating Voltage from 1.5 to 3.6V
- ✓ Open Drain Output
- ✓ 8kV ESD protection
- ✓ “Green” and “Pb-Free” Compliant Packages
- ✓ Thin SOT23-3L & Ultra Thin CSP package

MLX90248—KEY FEATURES

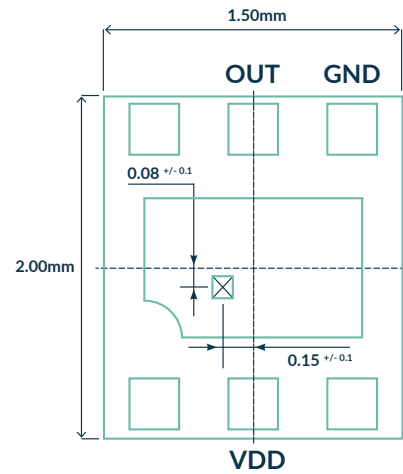
APPLICATION



PIN-OUT & HALL PLATE LOCATION

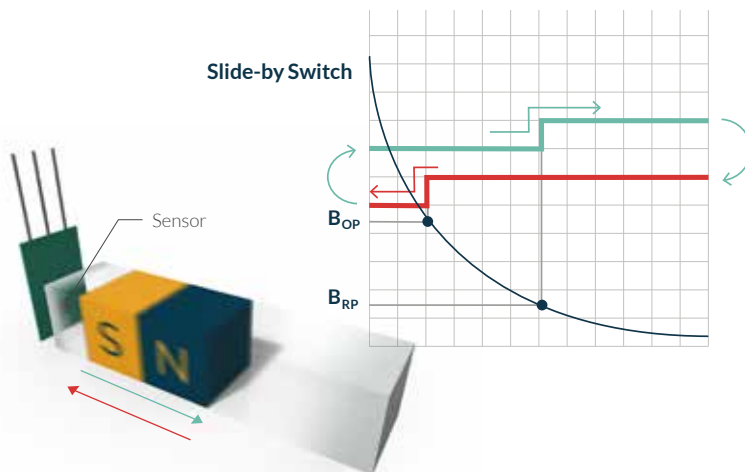


SE (Thin SOT23) package - top view



LD (Ultra-Thin QFN) package - top view

Only 0.4mm thick!
The industry's thinnest available CSP package



ProximitySwitch

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