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General Description

The OCH1932 is small, versatile linear Hall effect devices which are operated by the magnetic field from a permanent magnet or an electromagnet. They are optimized to accurately provide a voltage output that is proportional to an applied magnetic field. These devices have a quiescent output voltage that is 50% of the supply voltage.

Designed for battery powered consumer equipment to office equipment, home appliances and industrial applications, the OCH1932 can operate over the supply range of 1.7V to 3.6V. At 3.3V supply voltage, the device typically consumes 1.91mA current.

The OCH1932 has a typical sensitivity of -3mV/G at 3.3V. The typical null voltage offset is less than 1% of VDD. The device has typical minimum output noise of 4mVpp at 3.3V with -3mV/G.

The OCH1932 is available in small SOT23-3L package, and is rated over the -40°C to +85°C. These packages are available in a lead (Pb) free version.

Features

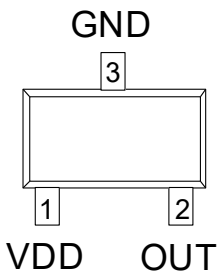
- Supply Voltage of 1.7V to 3.6V
- Low output noise: 4mVpp @3.3V with -3mV/G
- Ultra-Low Current Consumption: 1.91mA Typical
- BW: 100kHz
- -40°C to +85°C Operating Temperature
- Miniature Package SOT23-3L

Applications

- Magnetic keyboard
- Accurate position detection
- Liquid Level Detection

Pin Configuration

(Top-View)



SOT23-3L

Pin Name	Pin No.	I/O	Pin Function
VDD	1	I	Power Supply
OUT	2	O	Output
GND	3	I	Ground

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■ Block Diagram

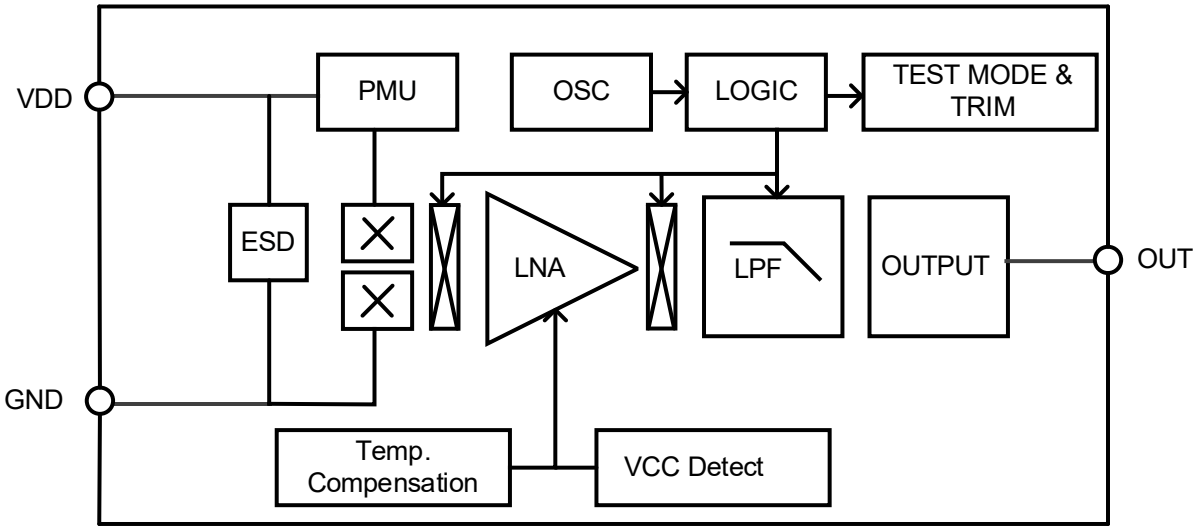


Figure 2, Block Diagram of OCH1932

■ Absolute Maximum Ratings

Symbol	Parameter		Rating	Unit
VDD and VOUT	Supply Voltage and Output Voltage		-0.3 ~ 5	V
IOUT	Output Current		20	mA
$R_{\theta jA}$	Maximum Power Dissipation	SOT23-3L	255	°C /W
TS	Storage Temperature Range		-50 to +150	°C
TJ	Maximum Junction Temperature		+150	°C
ESD HBM	-		2	kV

■ Typical Application circuit

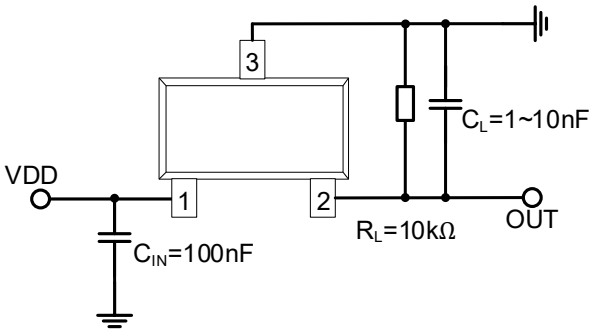


Figure 4, OCH1932 typical application circuit

NOTE: C_L and R_L are optional.

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