

Omnipolar, MicroPower Hall-Effect Switch

Features

- Micropower consumption
- 2.0V~6.0V power supply
- Chopper stabilized amplifier stage
- Open-drain output
- Switching for both polar of a magnet(Omnipolar)
- Very High Sensitivity Hall Sensor
- Package: 3Pin SIP

Applications

- Solid State Switch
- Home appliances, Industrial
- Position Detection
- Proximity Switch
- Smart Meter

General Description

The TX4913STR is fabricated from mixed signal CMOS technology. It internally includes an on-chip Hall voltage generator, a voltage regulator for operation with supply voltages of 2.0 to 6.0V, a sleep/awake logic for low power consumption, temperature compensation circuitry, small-signal amplifier, Hall sensor with dynamic offset cancellation system, Schmitt trigger and an open-drain output.

will turn the sensor output on. The output will be turned off under no magnetic field. While the magnetic flux density (B) is larger than operating point (Bop), the output will be turned on (low), the output is held until B is lower than release point (Brp), and then turned off.

The total power consumption in normal operation is typically 10μW with a 2.7V power source. Operating temperature range of the TX4913 is from -40°C to 85°C.

Either north or south poles of sufficient strength

Block Diagram

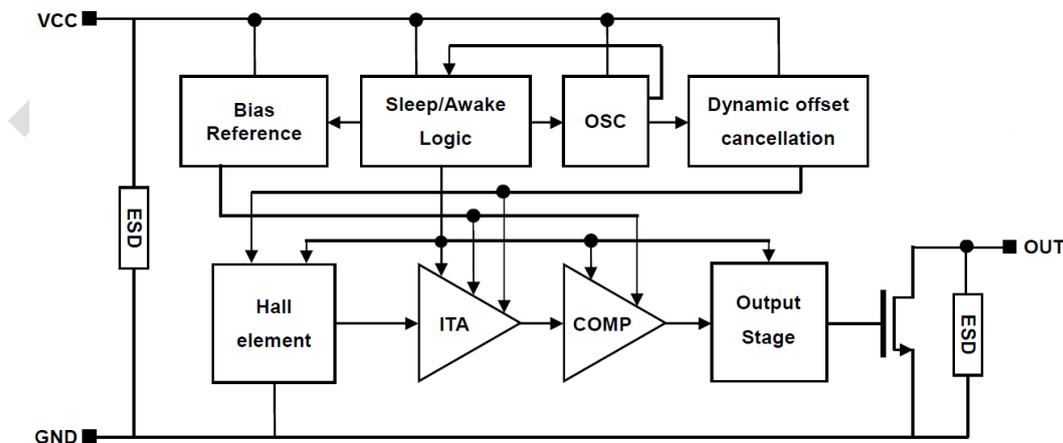


Fig 1