



ORIENT-CHIP

General Description

The OCH165 Unipolar Hall effect sensor IC is fabricated from mixed signal CMOS technology. It is comprised of one Hall plate and a CMOS output driver, mainly designed for battery-operation, hand-held equipment (such as Cellular and Cordless Phone, PAD). The total power consumption in normal operation is typically 21µW with a 3V power source. South poles of sufficient strength will turn the 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 OCH165 is available in TSOT23-3L Package. Operating temperature range of the OCH165 is from -40°C to 85°C.

To minimize the BOM cost, capacitors of the MLCC type are supported, and only one external component is needed to complete the application circuit.

Features

- Micro power consumption ideal for battery-powered applications
Input Voltage Range: 2.5V to 3.65V
Very High Sensitivity Hall Sensor
Chopper stabilized amplifier stage
Good RF noise immunity
TSOT23-3L package
Not need the push-high resistance

Applications

- Cover switch in clam-shell cellular phones
Cover switch in Notebook PC/PAD
Contact-less switch in consumer products
Solid State Switch
Handheld Wireless Handset Awake Switch
Lid close sensor for battery-powered device
Magnet proximity sensor for reed switch replacement in low duty cycle applications

Pin Configuration

TSOT23-3L (Top View)

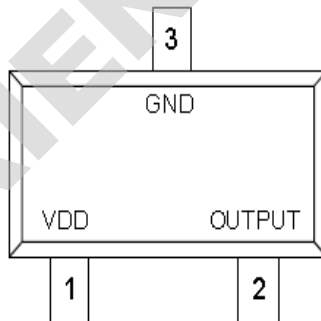
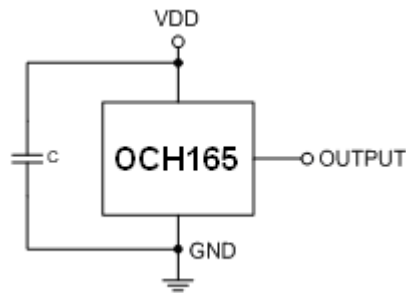


Table with 3 columns: Pin Name, Pin No. (TSOT23-3L), Pin Function. Rows include VDD (1, Power Supply Input), GND (3, Ground), and OUTPUT (2, Output Pin).

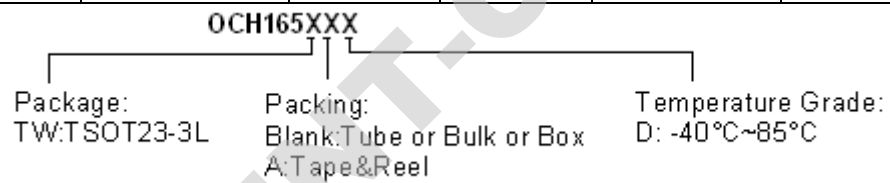
■ Typical Application Circuit



Note: C is for power stabilization and to strengthen the noise immunity, the recommended capacitance is 10nF~100nF.

■ Ordering Information

| Part Number | Package Type | Package Qty | B _{RPS} (Gauss) | B _{OPS} (Gauss) | Temperature | Eco Plan | Lead |
|-------------|--------------|---------------------------|-----------------------------|-----------------------------|-------------|----------|------|
| OCH165TWAD | TSOT23-3L | 7-in reel 3000pcs/reel | 50 ~ 100 | 90 ~ 140 | -40~85°C | Green | Cu |



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