



AH180N – High sensitivity and micro power omni-polar Hall-effect switch

Description

The AH180N is a high sensitivity, micro power Omni-polar Hall effect switch IC designed for portable and battery powered equipment.

Based on two sensitive Hall Effect plates and a chopper stabilized architecture the AH180N provides a reliable solution over the whole operating range. The design has been optimized to operate over the supply range of 2.5V to 5.5V and consumes only 24uW with a supply of 3V.



The Diodes advantage

The AH180N provides a small and simple solution for sensitive contactless switches in portable or battery powered applications.

- **Omni-polar design**
 - Operates with either a north or south pole
- **Designed for portable and battery powered equipment**
 - Wide supply voltage designed for battery applications (2.5V to 5.5V)
 - Micro power operation consuming an average of 24uA at 3V
 - Average supply current of only 8uA
- **High performance and reliable**
 - High sensitivity design
 - Chopper stabilized design to provide minimal switch point drift and superior temperature stability
- **Small and flexible solution**
 - Open drain output
 - Drop in replacement for the popular AH180
 - Packaged in the low profile SC59 (SOT23)

Applications

- Cellular or cordless phones
- PDAs and portable PCs
- Digital cameras
- Contactless switches

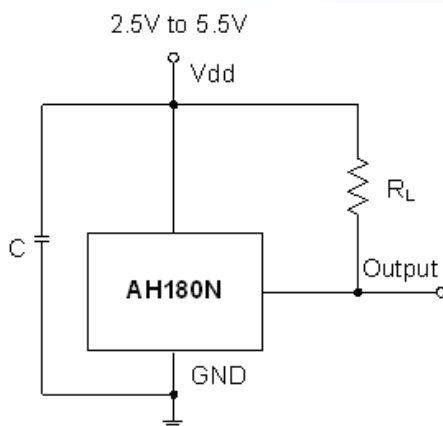


New Product Announcement

AH180N

AH180N – High sensitivity and micro power omnipolar Hall-effect switch

Typical applications circuit



Electrical characteristics

| Part Number | Output | Type | Operating Voltage (V) | Average Supply Current | Chopper Stabilized | Operating Point (Bop) (Gauss) | Release Point (Brp) (Gauss) | Temp Range (°C) | Package Outlines |
|-------------|--------|------------|-----------------------|------------------------|--------------------|-------------------------------|-----------------------------|-----------------|------------------|
| AH180N-WG-7 | Single | Open Drain | 2.5V to 5.5V | 8uA | Yes | ±50 | ±10 | -40 to 85 | SC59 |

Ordering information

| Device | Packaging | Part mark ID | Reel size | Tape width | Quantity |
|-------------|-----------|--------------|-----------|------------|----------|
| AH180N-WG-7 | SC59 | K9 | 7" | 8mm | 3000 |

To find out more information:

Product page: <http://www.diodes.com/products/catalog/detail.php?item-id=5765&popup=datasheet>

Datasheet: <http://www.diodes.com/datasheets/AH180N.pdf>

Web site: www.diodes.com/sensors