



Diodes, Inc.'s New Product Announcement, May 6, 2008

AH1751 Hall Effect Sensor - 3 Pin Bipolar Latch Single Digital Output

Target Applications: Electronic Bike; Tachometer for Speed and RPM (revolutions per minute) Sensing; Washing Machines; Dishwashers; Metering for Liquid Flow-Rate Sensing; Brushless DC Motors (Direct Current) Motor Commutation; Coin Vending Machines for Counter Control; DC Fans for Motor Control.

What Is a Bipolar Latch Sensor?

The Bipolar Latch Sensor enables an output switch to turn *on* with a south magnetic field of sufficient strength and *off* with a north magnetic field of sufficient strength. Its output retains its magnetic state when the magnet is removed.

What Is Inside the AH1751?

The AH1751 includes an on-chip Hall voltage generator for magnetic sensing, an amplifier to amplify Hall voltage, a comparator to provide switching hysteresis for noise rejection, and an open-collector output pre-driver.

Key Features:

Supply Voltage Range: 3.5V to 20V

- An internal band-gap regulator is used to provide temperature compensated supply voltage for internal circuits and allows for a wide operating supply range.
- Supports a wide Temperature Range: -40°C to +125°C.

Output Current:

- AH1751 has a 100mA (max) output sink current rating.
- With enhanced output driving capability, the I_o (average) 50mA output sink current is ideal for brushless dc motor commutation needs.
- The open-collector sinking output voltage is easily interfaced with a wide variety of electronic circuits and has the capability to meet motor operating conditions.

Device Protection:

AH1751 has built-in Chip Power Reverse connection protection.

Availability:

Samples: NOW Available!

Production Quantity Lead Time: 8 - 10 weeks

Data Sheet Available NOW at: www.diodes.com

To download a selected data sheet, enter the p/n in our website Product search > Data sheet, or click:

- **AH1751** <http://www.diodes.com/datasheets/AH1751.pdf>

Competition:

- **AH1751-PG** **Honeywell SS41F/G** **Pin-for-pin**

Competitive Comparison Matrix:

Part Number	Product Type	Operating Voltage (V)	Maximum Output Current (mA)	Maximum Supply Current (mA)	Operating Temperature (°C)	Maximum Operating Point Bop (Gauss) at Ta = 25°C	Minimum Release Point (Gauss) at Ta = 25°C	Package Outline
AH1751	Hall Effect Latch	3.5 to 20	100	6	-40 ~ 125	70	-70	SIP3
SS41F / SS41G	Hall Effect Latch	4.5 to 24	20	10	-40 ~ 125	150	-150	SIP3

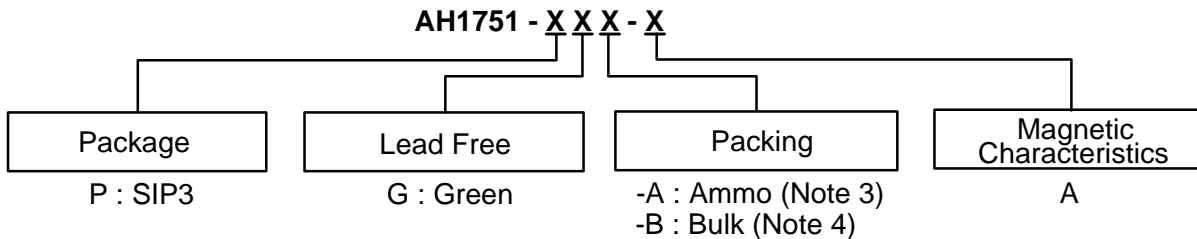
Package Options:

AH1751-PG

SIP-3L

RoHs Compliant with Green Compound
Ammo Pack or Bulk packing

Ordering Information:



(2) Package Type: SIP3 for Ammo pack

