



New Product Announcement

AH3761

AH3761 High sensitivity Hall effect latch sensor for BLDC fan and motor commutations

Description

The AH3761 is a high sensitivity CMOS Hall's effect latch sensor for single-phase brushless DC (BLDC) fans and motor commutation applications.

The AH3761 has an integrated band-gap voltage regulator, Hall-voltage transducer, amplifier, chopper stabilization, Schmitt trigger and open-drain output.

With wide operating voltage and temperature range, AH3761 is a small versatile Hall-effect latch devices that turns on with south magnetic field of sufficient strength and turns off with north magnetic field of sufficient strength. It retains the output state when magnetic field is removed.

The AH3761 is available in SC59 and SIP3 packages.



The Diodes advantage

The AH3761 is a chopper stabilized, small and versatile Hall-effect latch sensor for cooling fans and motor commutation applications

- **Wide operating voltage 3V to 28V**
Supports wide range of system voltages 3.3V/5V/12V/24V
- **Chopper stabilized**
Extremely low switch-point drift
Superior temperature stability
Insensitive to physical stress
- **High drive capability with built in short-circuit limit**
Output can sink up to 50mA
Easy interface to wide variety of electronic circuits
Safe operation against output short-circuit
- **Reverse supply protection**
Safe operation against reverse power/battery connection
- **Wide operating temperature range -40°C to 125°C**
Suitable also for industrial and other thermally demanding applications

Applications

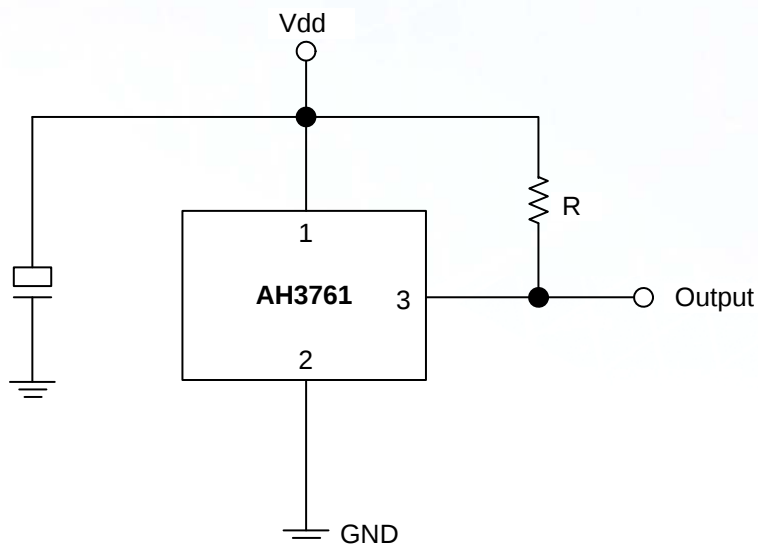
- BLDC cooling fan and motor commutations
- RPM monitor
- Position sensors



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Electrical characteristics

Part Number	Operating Voltage (V)	Max output current (mA)	Typical IC supply current (mA)	Max Operating Point Bop at 25°C (Gauss)	Min Release Point Brp at 25°C (Gauss)	Operating Temperature (°C)	Package
AH3761	3 to 28	50	4	60	-60	-40 to 125	*SIP3 **SC59

* SIP3 is through-hole pin compatible to TO-92

** SC59 is pin compatible to landing patterns of SOT23

To find out more information:

Product page: <http://www.diodes.com/products/catalog/detail.php?item-id=5486>

Datasheet: <http://www.diodes.com/datasheets/AH3761.pdf>



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Product portfolio

Part Number	Operating Voltage (V)	Average Output current (mA)	Operating Point Bop (Gauss)	Release Point Brp (Gauss)	Operating Temperature (°C)	Package
AH173	3 to 20	25	15/60 5/80	-60/-15 -80/-5	-40 to 125	SC59 SIP3
AH175	3.5 to 20	25	15/60 5/80	-60/-15 -80/-5	-40 to 150	SC59 SIP-3L
AH1751	3.5 to 20	50	5/70	-70/-5	-40 to 125	SIP3
AH266	4 to 28	400	10/70	-70/-10	-20 to 85	SIP4
AH276Q	3.5 to 20	400	10/50 5/70	-50/-10 -70/-5	-20 to 85	SIP4
AH342	4.5 to 28	3.4 to 7.4	40/120	-120/-40	-40 to 125	SIP4-L
AH373	2.5 to 20	25	5/60	-60/-5	-40 to 125	SC59, SIP3
AH375	2.5 to 20	25	5/60	-60/-5	-40 to 125	SC59, SIP3
ATS177	3.5 to 20	25	5/70	-70/-5	-20 to 85	SIP-3L
AH3761	3 to 28	50	5/60	-60/-5	-40 to 125	SC59, SIP3

Ordering information

Device	Packaging (Note 2)	Pack mark	Reel size	Tape width	Quantity		
					Ammo box (Note 3)	Bulk (Note 4)	Reel
AH3761-PG-A	SIP3	3761 Y WW X	NA	NA	4000	NA	NA
AH3761-PG-B	SIP3	3761 Y WW X	NA	NA	NA	1000	NA
AH3761-WG-7	SC59	P8 Y W X	7" 178mm	8mm	NA	NA	3000

All variants are in packages that are "Green" Molding Compound (No Br, Sb) with Lead Free Finish/RoHS Compliant (Note 1)

- Notes: 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied. see *EU Directive 2002/95/EC Annex Notes*.
Please visit our website at http://www.diodes.com/products/lead_free.html
2. Pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>
3. Ammo Box is for SIP3 - Spread Lead
4. Bulk is for SIP3 - Straight Lead

Coding on part marks

Y Year 0~9

WW Week 01-52

W A~Z week 1~26 a~z week 27~53

X A~Z: Green