



New Product Announcement

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AH3572/74/82

High-Voltage Hall Effect Omnipolar Switches with Market-Leading Performance

AH357x and AH3582 are high-voltage Hall effect omnipolar switches with operating voltages of 3 to 28V across the extended temperature range.

With its chopper stabilized architecture the AH3572/74/82 provide a reliable solution across its whole operating range. For robustness and protection, the device has a reverse blocking diode with Zener clamp on the supply pin and an over-current limit with a Zener clamp on its output.

The AH3572/74 are open-drain output while the AH3582 has an internal pull-up resistor output. All are switched on with South or North pole of sufficient strength. When the magnetic flux density (B) perpendicular to the package is larger than the operate point (B_{OP}) the output is switched on (pulled low) and is held on until magnetic flux density B is lower than the release point (B_{RP}).

AH3572/74/82 are available in SOT23 and SIP-3 packages



The Diodes Advantage

AH3572/74/82 Omnipolar switches provide reliable positioning detection in home appliances and industrial applications.

- **High-Performance Omnipolar Sensing**
 - 2 tight tolerance sensitivity options with tight operating window and low temperature coefficients for switch points.
 - Chopper stabilized design - minimizes switch point drift
 - Magnetic characteristics specified across the whole operating range
 - Fast “power on” of 10 μ s and response time of 3.75 μ s
- **Product Flexibility**
 - 3 to 28V and -40 $^{\circ}$ C to +125 $^{\circ}$ C – supports wide range of apps.
 - Industry standard SOT23 and SIP-3 package options
- **Reliability and Robustness**
 - Output clamps with current Limit
 - Input 32V reverse voltage protection with clamps
 - High ESD (HBM) rating of 6kV

Circuit Functions

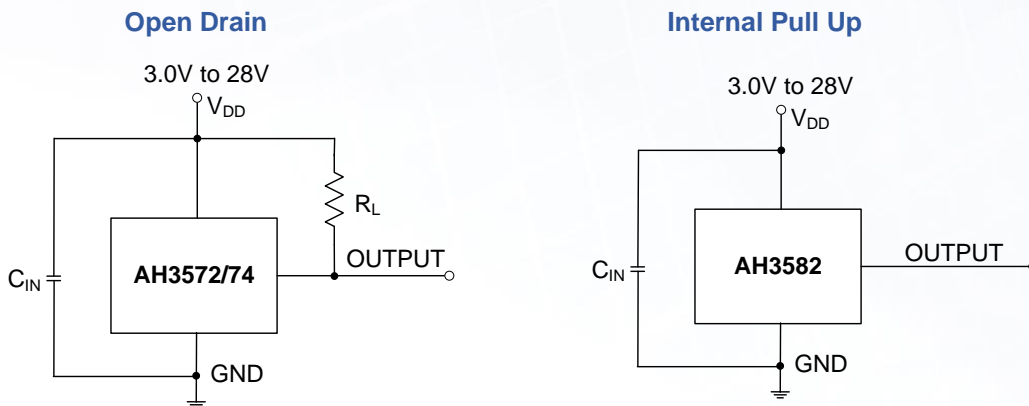
- Position and Proximity Sensing
- Open and Close Detect
- Level Detect
- Contact-less switches



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Typical Application Schematic



Product Portfolio

Part	Output Type	Operating Voltage (V)	Supply Current (mA)	Reverse Protection	Current Limit	ESD (kV)	Operating Point (Bop) (Gauss)	Release Point (Brp) (Gauss)	Temp Range (°C)	Package
AH3572	Open Drain	3 to 28	3	Yes	Yes	6	±20	±10	-40 to +125	SOT23,SIP-3
AH3574	Open Drain	3 to 28	3	Yes	Yes	6	±40	±25	-40 to +125	SOT23,SIP-3
AH3582	Int. Pull-up	3 to 28	3	Yes	Yes	6	±40	±25	-40 to +125	SOT23,SIP-3

Ordering Information

Device	Packaging	Part Marking	Bulk	Ammo	7" Tape and Reel	
			Quantity	Quantity	Tape Width	Quantity
AH3572-P-A	SIP-3 (Ammo)	3572	-	4000	-	-
AH3572-P-B	SIP-3 (Bulk)	3572	1000	-	-	-
AH3572-SA-7	SOT23	Z7	-	-	8mm	3000
AH3574-P-A	SIP-3 (Ammo)	3574	-	4000	-	-
AH3574-P-B	SIP-3 (Bulk)	3574	1000	-	-	-
AH3574-SA-7	SOT23	Z8	-	-	8mm	3000
AH3582-P-A	SIP-3 (Ammo)	3582	-	4000	-	-
AH3582-P-B	SIP-3 (Bulk)	3582	1000	-	-	-
AH3582-SA-7	SOT23	ZB	-	-	8mm	3000