



New Product Announcement

AH337x/AH3382 New Family

AH337x/AH3382 - New High Voltage Hall Effect Unipolar Product Family with Market-Leading Performance

AH337x and AH3382 are a new market-leading high-voltage, high-performance Hall Effect Unipolar family with operating voltages of 3 to 28V over the extended temperature range of -40 to +125°C.

With chopper stabilized architecture and an internal bandgap regulator to provide temperature compensated supply for internal circuits, the AH337x and AH3382 provides a reliable solution over the whole operating range. For robustness and protection, the device has a reverse blocking diode with a Zener clamp on the supply. The output has an over current limit and a Zener clamp.

The single open drain (AH337X) or internally pulled up AH3382 output can be switched on with South pole of sufficient strength. When the magnetic flux density (**B**) perpendicular to the package is larger than the operate point (**Bop**) the output is switched on (pulled low) and is held on until magnetic flux density **B** is lower than the release point (**Brp**). The output remains switched off for North pole fields to or no magnetic fields.

The magnetic operating and release polarity is opposite for SOT23 and SC59 packages. SOT23 and SIP-3 packages require south pole to the part marking side to operate while SC59 requires south pole to the non-part marking side.



The Diodes' Advantage

AH337x and AH3382 provide reliable and high-performance Hall-effect Unipolar switches for home appliances and industrial applications.

- **High Performance Hall Effect Unipolar Family**
 - 5 sensitivity options with tight switch point window (less magnetic spread) and low temperature coefficients covering the high, medium and low sensitivity bands .
 - Magnetic characteristics specified over the whole operating range
 - Fast "power on" of 10µs typical and response time of 3.75µs typical with wide bandwidth
- **Product Flexibility**
 - Designed for a wide range of applications: 3 to 28V and -40 to +125°C
 - Industry standard SOT23, SC59 and SIP-3 package options with SC59 providing inverse operating magnetic polarity option
 - Open-drain output for pull-up flexibility or internal pull-up for higher levels of integration (reduced component count)
- **Stability, Reliability and Robustness**
 - Chopper stabilized design to provide minimal switch point drift
 - Superior temperature and supply line stability
 - Input and output clamps with Output Current Limit
 - 32V reverse voltage protection
 - High ESD (HBM) rating of 6kV

Circuit Functions

- Position and Proximity Sensing in Consumer and Industrial Applications
- 12V Open and Close Detect
- Level Detect
- Flow Meters
- Contact-less switches

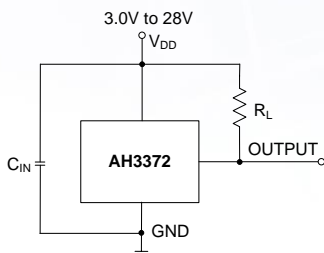


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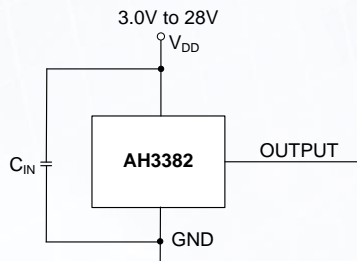
AH337x/AH3382

Typical Application Schematic

Open Drain



Internal Pull Up



High Voltage Unipolar Product Portfolio

Part	Output Type	Operating Voltage (V)	Ave Supply (mA)	Copper Stabilized	Reverse Protection	Current Limit	ESD (kV)	Typical Bop (Gauss)	Typical Brp (Gauss)	Temp Range (°C)	Package
AH3372	Open Drain	3 to 28	3	Yes	Yes	Yes	6	30	20	-40 to +125	SC59, SOT23, SIP-3
AH3373	Open Drain	3 to 28	3	Yes	Yes	Yes	6	55	35	-40 to +125	SC59, SOT23, SIP-3
AH3376	Open Drain	3 to 28	3	Yes	Yes	Yes	6	100	85	-40 to +125	SC59, SOT23, SIP-3
AH3377	Open Drain	3 to 28	3	Yes	Yes	Yes	6	115	90	-40 to +125	SC59, SOT23, SIP-3
AH3382	Int. Pull-up	3 to 28	3	Yes	Yes	Yes	6	55	35	-40 to +125	SC59, SOT23, SIP-3

Ordering information

Device	Orderable	Packaging	Part Marking	Bulk	Ammo	7" Tape and Reel	
				Quantity	Quantity	Tape Width	Quantity
AH3372	AH3372-P-A	SIP-3 (Ammo)	3372	-	4000	-	-
	AH3372-P-B	SIP-3 (Bulk)	3372	1000	-	-	-
	AH3372-SA-7	SOT23	MS	-	-	8mm	3000
	AH3372-W-7	SC59	DS	-	-	8mm	3000
AH3373	AH3373-P-A	SIP-3 (Ammo)	3373	-	4000	-	-
	AH3373-P-B	SIP-3 (Bulk)	3373	1000	-	-	-
	AH3373-SA-7	SOT23	MT	-	-	8mm	3000
	AH3373-W-7	SC59	DT	-	-	8mm	3000
AH3376	AH3376-P-A	SIP-3 (Ammo)	3376	-	4000	-	-
	AH3376-P-B	SIP-3 (Bulk)	3376	1000	-	-	-
	AH3376-SA-7	SOT23	MZ	-	-	8mm	3000
	AH3376-W-7	SC59	DC	-	-	8mm	3000
AH3377	AH3377-P-A	SIP-3 (Ammo)	3377	-	4000	-	-
	AH3377-P-B	SIP-3 (Bulk)	3377	1000	-	-	-
	AH3377-SA-7	SOT23	ZT	-	-	8mm	3000
	AH3377-W-7	SC59	DD	-	-	8mm	3000
AH3382	AH3382-P-A	SIP-3 (Ammo)	3382	-	4000	-	-
	AH3382-P-B	SIP-3 (Bulk)	3382	1000	-	-	-
	AH3382-SA-7	SOT23	MU	-	-	8mm	3000
	AH3382-W-7	SC59	DU	-	-	8mm	3000