

Grade 0 Automotive-Compliant Omnipolar Hall Switches Designed for Harsh Automotive Applications

AH356xQ are automotive-compliant, qualified to AEC-Q100 Grade 0, high-sensitivity omnipolar Hall effect switches that support PPAP documentation.

The AH356xQ has 3 sensitivity options with extremely tight switch points and best-in-class drift over temperature and supply voltage.

Their wide input voltage range of 3V to 28V, operating temperature range of -40 to +150°C coupled with a 32V reverse polarity protection enable them to withstand the harsh automotive environment.

Thanks to high ESD (8kV) and multiple protection functions, including input/output clamps, AH356xQ provide robust and rugged solutions for automotive proximity detection.

AH356xQ are available in industry standard SOT23 and SIP-3 packages



The Diodes Advantage

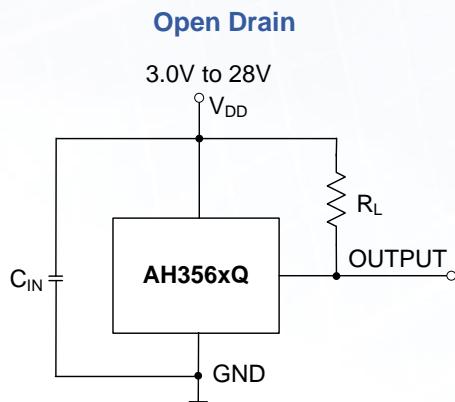
AH356xQ are reliable and high-performance omnipolar Hall sensors for automotive applications.

- **Precise and stable omnipolar Hall switch points**
Maintains integrity of switch and release points across all operating range ensuring correct system operation
- **Wide operating voltage range, 3V to 28V**
Supports whole automotive battery range
- **Wide (-40 to +150°C) operating temperature range**
Flexible solution for different automotive application conditions
- **High ESD (8kV) and multiple protection functions**
Robust and rugged solution for automotive proximity detection
- **Industry standard SOT23 and SIP-3 packages**
Ease of use and placement

Circuit Functions

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

Typical Application Schematic



Automotive-Compliant Omnipolar Switches

Part	AECQ-100	Output Type	Operating Voltage (V)	Ave Supply (mA)	Reverse Protection	Current Limit	ESD HBM/CDM (kV)	Operating Point (Bop) (Gauss)	Release Point (Brp) (Gauss)	Temp Range (°C)	Package
AH3562Q	Grade 0	Open Drain	3 to 28	3	Yes	Yes	8/2	±20	±10	-40 to +150	SOT23,SIP-3
AH3563Q								±30	±20		SOT23,SIP-3
AH3564Q								±40	±25		SOT23,SIP-3

Ordering Information

Device	Packaging	Part Marking	Bulk		Ammo		7" Tape and Reel	
			Quantity	Quantity	Quantity	Tape Width	Quantity	
AH3562Q-P-A	SIP-3 (Ammo)	3562Q	-	4000	-	-	-	-
AH3562Q-P-B	SIP-3 (Bulk)	3562Q	1000	-	-	-	-	-
AH3562Q-SA-7	SOT23	Z2	-	-	-	8mm	3000	
AH3563Q-P-A	SIP-3 (Ammo)	3563Q	-	4000	-	-	-	-
AH3563Q-P-B	SIP-3 (Bulk)	3563Q	1000	-	-	-	-	-
AH3563Q-SA-7	SOT23	Z3	-	-	-	8mm	3000	
AH3564Q-P-A	SIP-3 (Ammo)	3564Q	-	4000	-	-	-	-
AH3564Q-P-B	SIP-3 (Bulk)	3564Q	1000	-	-	-	-	-
AH3564Q-SA-7	SOT23	Z4	-	-	-	8mm	3000	

For more information:

AH3562Q: <https://www.diodes.com/part/AH3562Q>

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