

**HIGH SENSITIVITY CMOS HALL-EFFECT LATCH****AH920****Description**

The AH920 is a Hall-effect latch designed in mixed signal CMOS technology. It is quite suitable for use in automotive, industrial and consumer applications.

Superior high-temperature performance is made possible through dynamic offset cancellation, which reduces the residual offset voltage normally caused by device over-molding, temperature dependencies, and thermal stress. The device integrates a voltage regulator, Hall-voltage generator, small-signal amplifier, chopper stabilization, schmitt trigger, and open-drain output.

An on-board regulator permits operation with supply voltage from 3.5V to 20V.

The AH920 is available in TO-92S-3 and SOT-23-3 packages, which are optimized for most applications.

Features

- Wide Operating Voltage Range from 3.5 to 20V
- Symmetrical Switch Points
- Chopper-stabilized Amplifier Stage
- Superior Temperature Stability
- Open-drain Output
- Compact Size
- ESD Rating: 6000V (Human Body Model)

Applications

- Brushless DC Motor Commutation
- Brushless DC Fan
- Solid-state Switch
- Revolution Counting
- Speed Detection
- High Sensitivity and Unconnected Switch

Parametric Table

Output Saturation Voltage ($V_{CC}=12V, I_{OUT}=20mA$) (mV)	185
Supply Current (Average) (mA)	3
Operating Point (Gauss)	22
Releasing Point (Gauss)	-22
Hysteresis (Gauss)	45

Benefits

- High Sensitivity for Switching Symmetry
- Excellent Temperature Performance
- Wide Operation Temperature Range
- High ESD
- Cost-effective Total Solution If Bundling with BCD's FMD ICs

Additional Available Materials

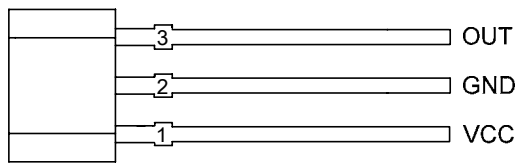
- Samples
- Preliminary Data Sheet
- Reliability Report
- ESD Report

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AH920

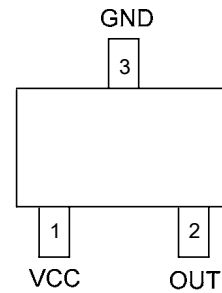
Pin Configuration

Z3 Package
(TO-92S-3)



(Front View)

N Package
(SOT-23-3)



(Top View)

Ordering Information Example

Package	Temperature Range	Part Number	Marking ID	Packing Type
TO-92S-3	-40 to 125°C	AH920Z3-G1	920	Bulk
		AH920Z3TR-G1	920	Ammo
SOT-23-3	-40 to 125°C	AH920NTR-G1	GS7	Tape & Reel

Detailed information please refer to the relevant datasheet.

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