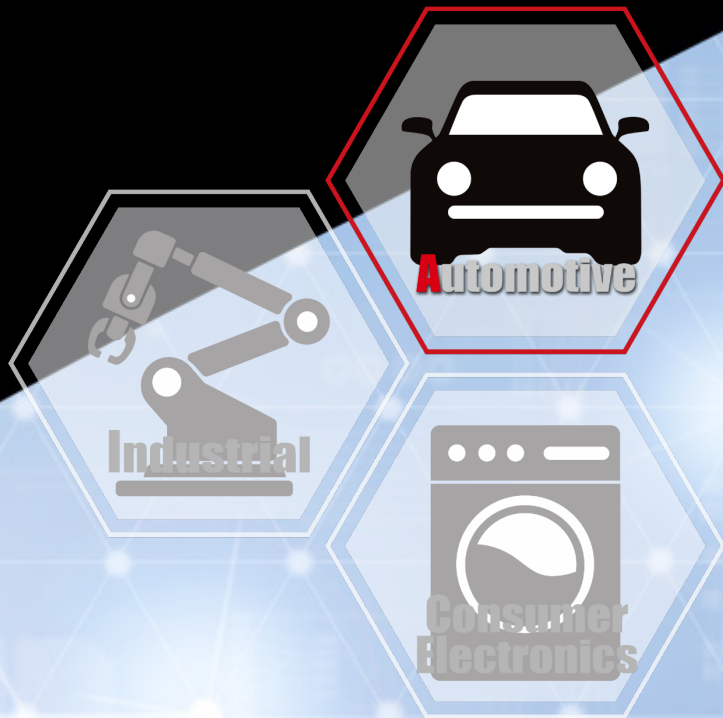


Class-leading* high withstand voltage ensures stable operation even with sudden increase in battery voltage

*ROHM June 2023 study

AEC-Q100 Qualified 42V Withstand Voltage Hall Sensor ICs

BD5310xG-CZ/BD5410xG-CZ series



The BD5310xG-CZ/BD5410xG-CZ series are AEC-Q100 qualified high withstand voltage Hall Sensor ICs. Two types are offered: unipolar and latch detection, in a variety of sensitivity options that allow users to select the ideal product based on application needs.

Features

- **Achieves an absolute maximum rating of 42V with a wide operating voltage range from 2.7V to 38V**

Ensures reliability even when the battery voltage rises sharply while supporting a wide range of applications

- **Low 1.9mA current consumption**

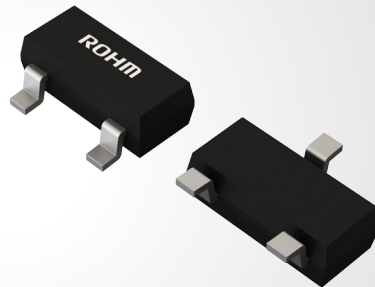
Contributes to greater power savings in applications

- **Two types are offered: unipolar and latch detection - in a wide range of sensitivities**

Select the optimum detection type and sensitivity that meet set requirements

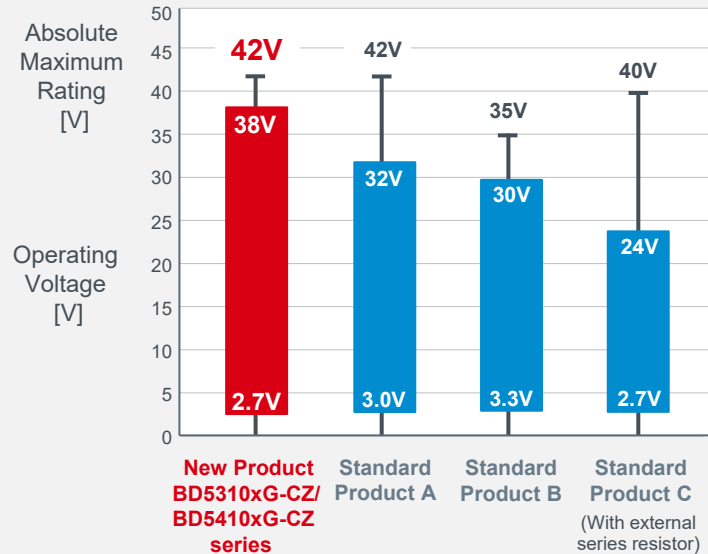
**BD5310xG-CZ/
BD5410xG-CZ series**

SSOP3A Package
2.92×2.40×1.12mm
(JEDEC: SOT23-3 equivalent)



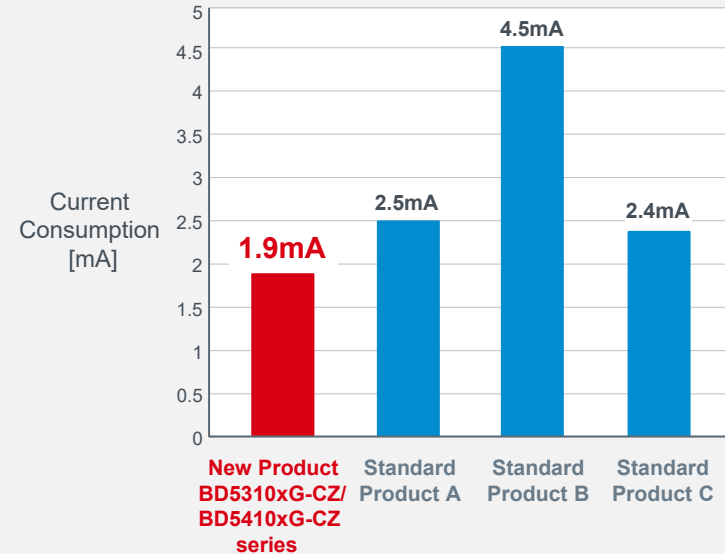
Comparison with Hall Sensor ICs of Equivalent Performance

Absolute Maximum Rating & Operating Voltage



- Ensures stable operation even when the battery voltage rises sharply
- Suitable for a wide range of applications

Current Consumption

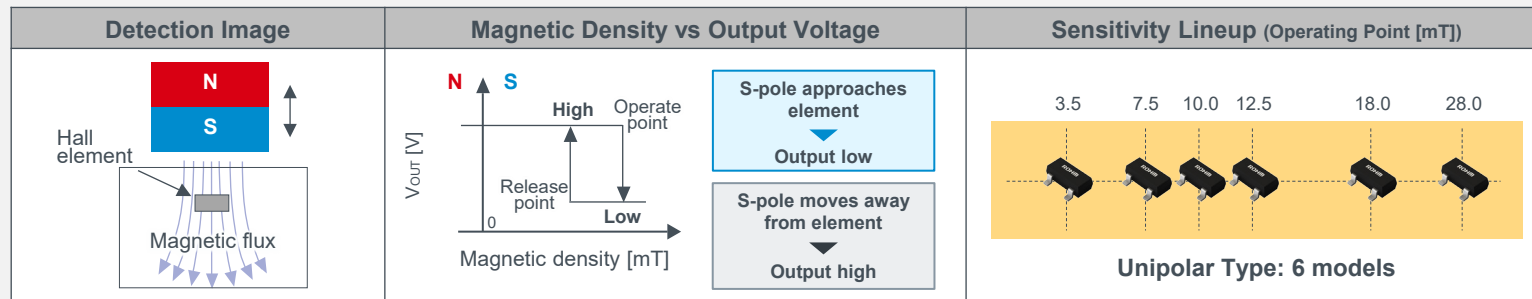


- Contributes to greater power savings

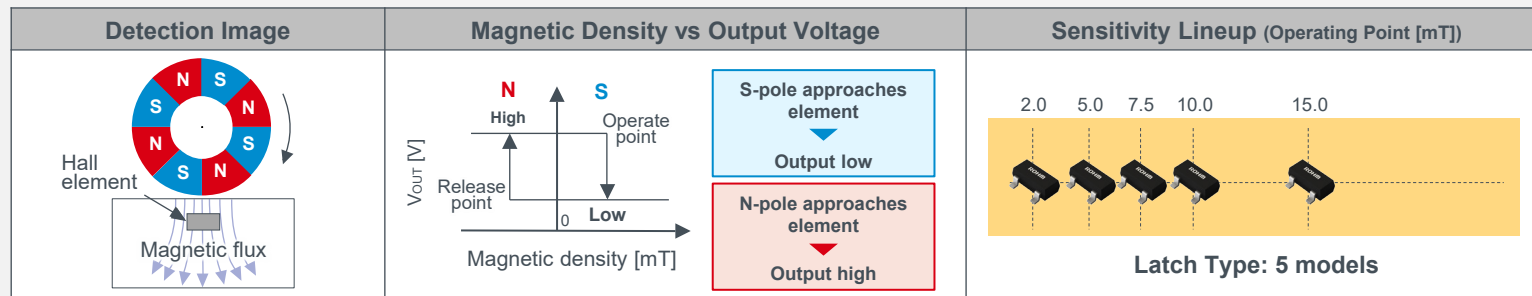
Broad Sensitivity Lineup Offered in Both Unipolar and Latch Detection Types

(BD5310xG-CZ/BD5410xG-CZ series)

Unipolar Type (S-Pole): Ideal for open/close and attach/detach detection



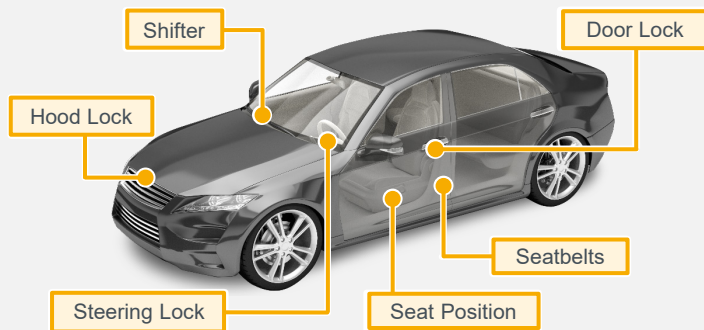
Latch Type: Ideal for motor rotation detection



Select from among 11 models based on application needs for detection type and sensitivity

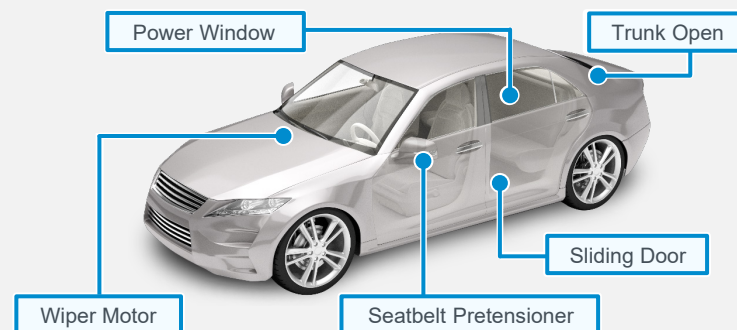
Unipolar Type

Ideal for open/close and attach/detach detection



























Latch Type

Ideal for brushless DC motors and rotation detection





42V Withstand Voltage Hall Sensor ICs Lineup

(BD5310xG-CZ/BD5410xG-CZ series)

Part No.	Detection Type	Operating Voltage [V]	Magnetic Flux Density [mT]		Magnetic Field Input Frequency (Max) [kHz]	Current Consumption (Max) [mA]	Output Type	Operating Temperature [°C]	Protection Functions	Package	Automotive-Grade AEC-Q100
			S-pole	N-pole							
New BD53103G-CZ  	Unipolar Detection	2.7 to 38	3.5	—	10	1.9	Nch Open Drain	-40 to +150	Overcurrent Protection Over Temperature Protection Reverse Connection Protection UVLO (Under Voltage Lockout)	 SSOP3A JEDEC: SOT23-3 equivalent	YES
☆ BD53104G-CZ  			7.5								
☆ BD53105G-CZ  			10.0								
☆ BD53106G-CZ  			12.5								
☆ BD53107G-CZ  			18.0								
New BD53108G-CZ  	Latch Detection	2.7 to 38	28.0	-2.0	10	1.9	Nch Open Drain	-40 to +150	Overcurrent Protection Over Temperature Protection Reverse Connection Protection UVLO (Under Voltage Lockout)	 SSOP3A JEDEC: SOT23-3 equivalent	YES
New BD54102G-CZ  			2.0								
☆ BD54103G-CZ  			5.0								
☆ BD54104G-CZ  			7.5								
☆ BD54105G-CZ  			10.0								
☆ BD54107G-CZ  			15.0								

☆ Under Development

Click on the  icon to access the product page and the  icon to view the datasheet on ROHM's website.

Notes

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