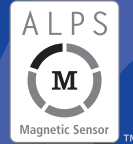


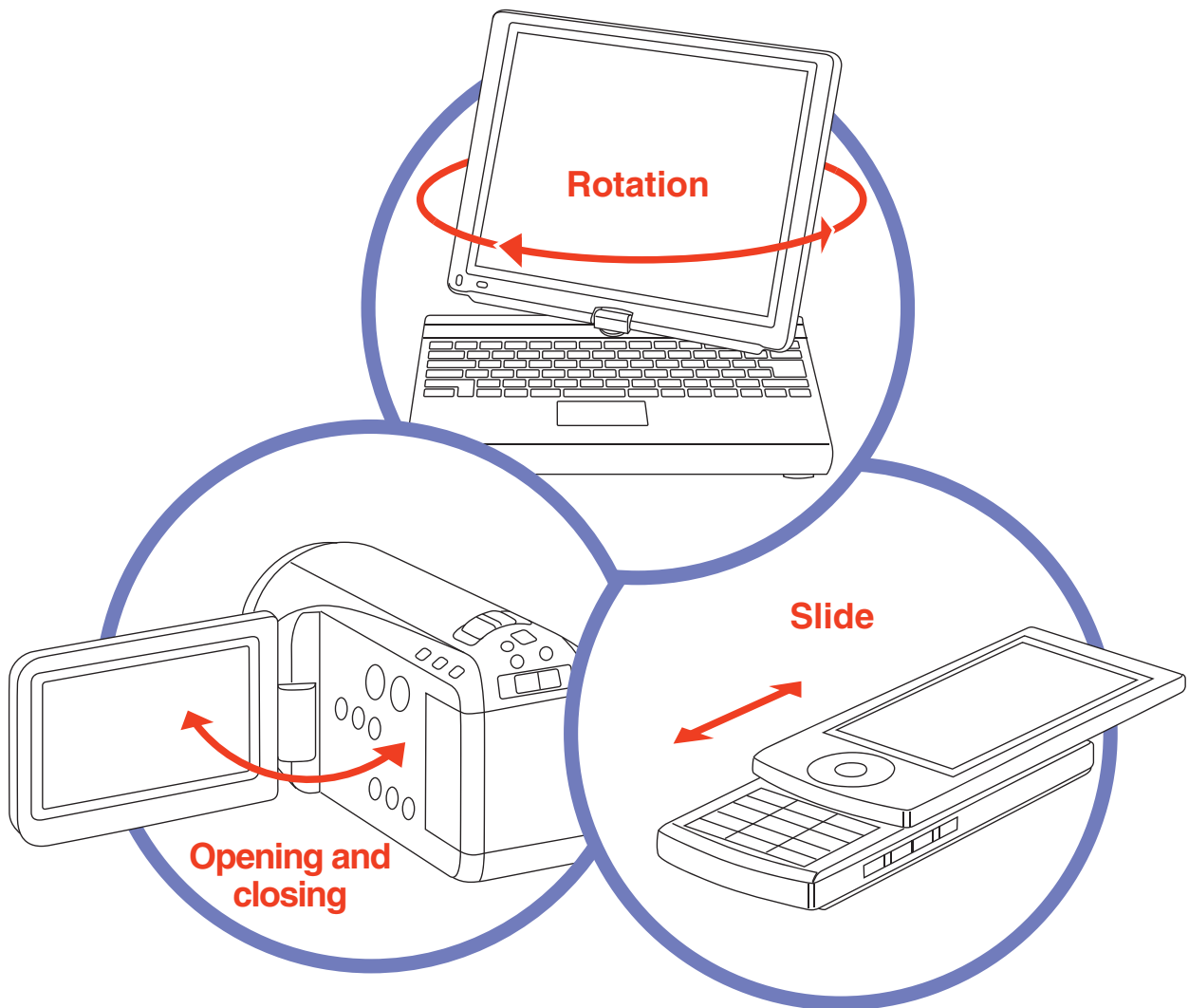
Highly Reliable Magnetic Sensor Switching Output Type

ALPS[®]



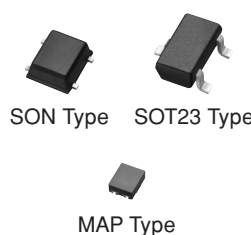
HGDE□ Series

Compact and low current consuming magnetic sensor responds to various movements.



Line-up of low drive voltage type and various package specifications.

- Small and thin shape (MAP type : 1.1×0.9×0.55mm)
- Low current consumption (3.0μA at VDD=1.8V)
- Low drive voltage type 1.8V Typ. (1.6V min. to 3.6V max.)
- Rich line-ups (functions, operating magnetic field and package specifications).



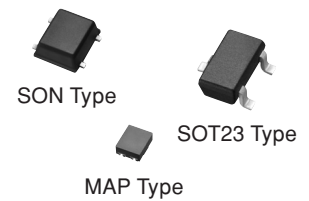
MAP Type	SON Type	SOT23 Type
0.55mm	0.75mm	1.1mm
1.1mm	2.1mm	2.8mm
0.9mm	2.1mm	2.9mm

Full size

Highly Reliable Magnetic Sensor Switching Output Type



SENSORING™



HGDE□ Series

Wider variety contributes to improving set design flexibility.

Applications

To detect opening and closing of lids and doors on all kinds of consumer equipment such as mobile phones, notebook PCs and digital camcorders

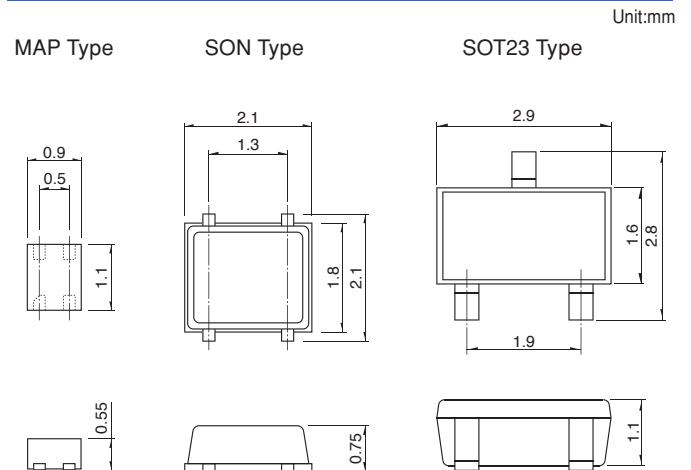
Typical Specifications

Items	Specifications
Drive voltage	Typ. 1.8V(1.6V min. to 3.6V max.)
Current consumption	3.0μA Ave.(at VDD=1.8V)

Products List

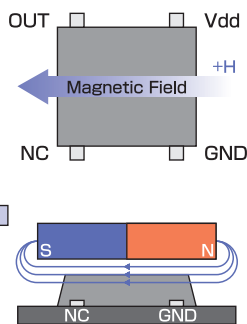
Package Specifications/ Size	Function	Product Number	Operating magnetic field
MAP Type 1.1X0.9X0.55mm	Single Polarity/Single Output	HGDESM	Hon 2.0mT Hon 3.0mT
	Dual Polarity/Single Output	HGDEPM	
	Dual Polarity/Dual Output	HGDEDM	
SON Type 2.1X2.1X0.75mm	Single Polarity/Single Output	HGDESN	
	Dual Polarity/Single Output	HGDEPN	
	Dual Polarity/Dual Output	HGDEDN	
SOT23 Type 2.9X2.8X1.1mm	Single Polarity/Single Output	HGDEST	
	Dual Polarity/Single Output	HGDEPT	

Dimensions



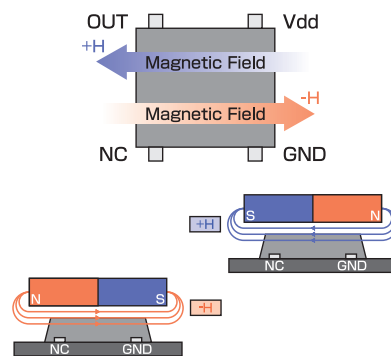
Function Variety

Single Polarity/Single Output



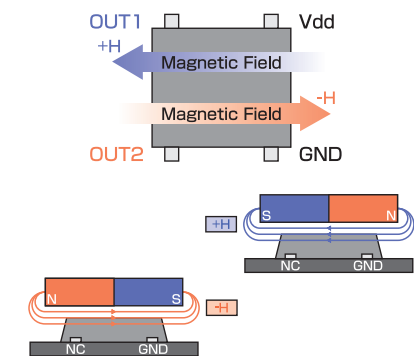
+H	Operating magnetic field	Output voltage	<Hoff	Hon<
			OUT-1	High (Off)
		OUT-2	Dummy	
-H	Operating magnetic field	Output voltage	OUT-1	High (Off) High (Off)
			OUT-2	Dummy

Dual Polarity/Single Output



+H	Operating magnetic field	Output voltage	OUT-1	OUT-2	<Hoff	Hon<
			High (Off)	Low (On)	High (Off)	Low (On)
		OUT-2	Dummy			
-H	Operating magnetic field	Output voltage	OUT-1	High (Off)	High (Off)	Low (On)
			OUT-2	Dummy		

Dual Polarity/Dual Output



+H	Operating magnetic field	Output voltage	OUT-1	OUT-2	<Hoff	Hon<
			High (Off)	Low (On)	High (Off)	High (Off)
		OUT-2	High (Off)	High (Off)		
-H	Operating magnetic field	Output voltage	OUT-1	High (Off)	High (Off)	Low (On)
			OUT-2	High (Off)	Low (On)	

Cautions for Use

- The specifications herein are an overview of the specifications. Obtain official specifications before use.
- Unless specifically indicated otherwise, products herein have been designed and manufactured for use in ordinary electronic equipment, such as AV equipment, electric home appliances, office machines and communication equipment. In case of using the products for highly sensitive applications such as medical, aviation, aerospace and security, the set makers shall require to include measures necessary to meet product safety requirements of such specific applications. Such measure may include additional protection circuits and redundant circuits, for example.
- The external appearance, performances, and other properties of the product are subject to change for improvement without prior notice. The product introduced in this catalog may be discontinued without prior notice.
- SENSORING is a trademark of Alps Electric Co., Ltd.
- All product names, company names and names of standards described in this catalog are trademarks or registered trademarks of their respective owners.
- Contact us for any enquiries and queries on our products and their uses.
- This catalog is valid till the end of December 2008.

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