

Magnetic Sensor Switching Output Type

HGDE□/HGDF□ Series

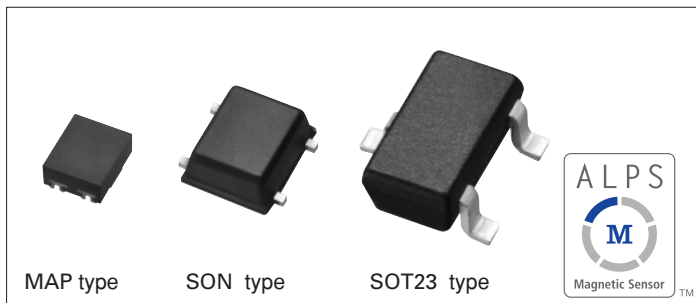


Various product lineup contributes set design flexibility. High precision, compact and low profile product based on magnetic sensing devices technologies.

Magnetic Sensors

Piezo Sensors

Resistive Sensors



Typical Specifications

Items	Specifications	
	HGDE□	HGDF□
Drive voltage	Typ. 1.8V (1.6V min. ~ 3.6V max.)	Typ. 5V (4.5V min. ~ 5.5V max.)
Current consumption	3μA Ave. (at VDD=1.8V)	Typ. 1.65mA (at VDD=5V)
Operating temperature range	-40°C ~ +85°C	

Product list

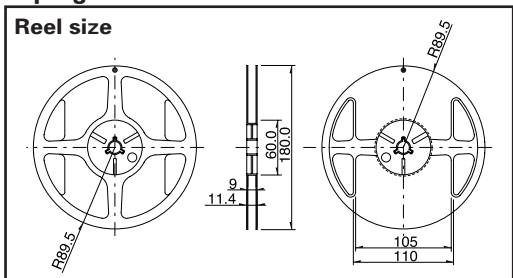
Drive voltage	Package specifications/Size	Function	Minimum order unit (pcs.)	Model No.	Operating magnetic field(Hon)
Typ. 1.8V	MAP type 1.3×0.9×0.55mm	Single polarity/ Single output	3,000	HGDESM023A	2.0mT
		Dual polarity/ Single output		HGDEPM023A	
		Dual polarity/ Dual output		HGDEDM023A	
	SON type 2.1×2.1×0.75mm	Single polarity/ Single output		HGDESN021A	
		Dual polarity/ Single output		HGDEPN021A	
		Dual polarity/ Dual output		HGDEDN021A	
	SOT23 type 2.9×2.8×1.1mm	Single polarity/ Single output		HGDEST021B	
		Dual polarity/ Single output		HGDEPT021B	
		Dual polarity/ Dual output		HGDFSN021A	
Typ. 5V	SON type 2.1×2.1×0.75mm	Single polarity/ Single output	3,000	HGDFPN021A	2.0mT
		Dual polarity/ Single output		HGDFDN021A	
		Dual polarity/ Dual output		HGDFST021B	
	SOT23 type 2.9×2.8×1.1mm	Single polarity/ Single output		HGDFPT021B	
		Dual polarity/ Single output			
		Dual polarity/ Dual output			

Notes

※ Operating magnetic field is compatible with both high-sensitive and low-sensitive types. Please contact us for details.

Packing Specifications

Taping



Number of packages (pcs.)			Tape width (mm)	Export package measurements (mm)
1 reel	1 case /Japan	1 case /export packing		
3,000	3,000	45,000	8	210×210×230

Notes

Please place purchase orders per minimum order unit N (integer).



■ Dimensions

Unit:mm

Style
<p>MAP type</p>
<p>SON type</p>
<p>SOT23 type</p>

Magnetic Sensors







Piezo Sensors

Resistive Sensors



Automotive Use

Index for Functions

Style	Series	Photo	Type	Package / Size	Function	Drive voltage	Operating magnetic field	Page			
Magnetic	HGDE□		Switching output (Detection switch)	MAP	1.3×0.9×0.55mm	Single Polarity / Single Output	Typ. 1.8V	Hon 2.0/3.0mT	507		
						Dual Polarity / Single Output					
						SON				2.1×2.1×0.75mm	Single Polarity / Single Output
											Dual Polarity / Single Output
						SOT23				2.9×2.8×1.1mm	Single Polarity / Single Output
											Dual Polarity / Single Output
	HGDF□	SON	2.1×2.1×0.75mm	Single Polarity / Single Output	Typ. 5V						
				Dual Polarity / Single Output							
	SOT23	2.9×2.8×1.1mm	Single Polarity / Single Output	Typ. 5V							
			Dual Polarity / Single Output								
HGDFPA□		Switching output (Connector Connection Model)	14×9×5mm	Dual Polarity / Single Output (open collector output)	—	509					
HGP□P		Latch output type (direction of rotation)	MAP	1.3×0.9×0.55mm	1-phase alternating output Sampling period 1.3msec	Typ. 1.8V	Hon 1mT/ Hoff -1mT	510			
			SOT23	2.9×2.8×1.1mm	1-phase alternating output Sampling period 35μsec	Typ. 5V					
HGP□D		Incremental encoding output (direction of rotation/rotation direction)	MAP	2×1×0.55mm	2-phase alternating output Sampling period 1.3msec	Typ. 1.8V	511				
			SOT23	2.9×2.8×1.1mm	2-phase alternating output Sampling period 35μsec	Typ. 5V					
HGAR□		Linear analog output (Rotation detection)	2×1.5×0.65mm	Output: Typ. ±75mV (rotation angle ±30°)	1.5 ~ 5.5V	—	512				
Geomagnetic	HSCD□		Geomagnetic detection	2.5×2.5×0.7mm	Output resolution 0.5 μT/LSB	Ana: 2.4 ~ 3.6V Digi: 1.7 ~ 2.3V	±0.6mT	513			

Magnetic Sensors

Piezo Sensors

Resistive Sensors