

MRSS32W

Built-in IC ultra- compact MR sensor

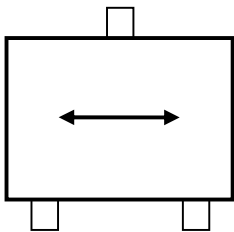
FEATURES

- Operating Voltage: 1.6 to 3.5V
- Low power consumption (6 μ W(typ): Vcc=1.8V)
-Suited for battery-operation
- Low height and Compact package size
(Height: Max 0.8mm)
- Operating ambient temperature range: -40°C to +85°C
Operating in one way magnetic field
Operating with independent pole (easily manufacture)
RoHS Compliant

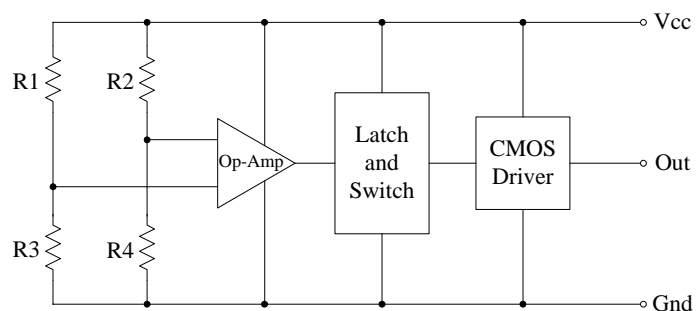


FUNDEMENTAL OPERATION

Direction of Magnetic Field



Circuit Block



The intermittent switch circuit inside

PERFORMANCE

Performance Characteristics (25±3°C)

	Operating require Condition	Output Voltage
When power switch is ON	H = 0mT(Magnetic Flux Density) {0 A/m (Magnetic Field Strength)}	Hi-level
When magnetic field is applied	H ≥ 2.5mT(Magnetic Flux Density) {2.0kA/m (Magnetic Field Strength)}	Lo-level
When magnetic field is applied	H ≤ 0.8mT(Magnetic Flux Density) {0.6kA/m (Magnetic Field Strength)}	Hi-level

Recommended Operating Conditions

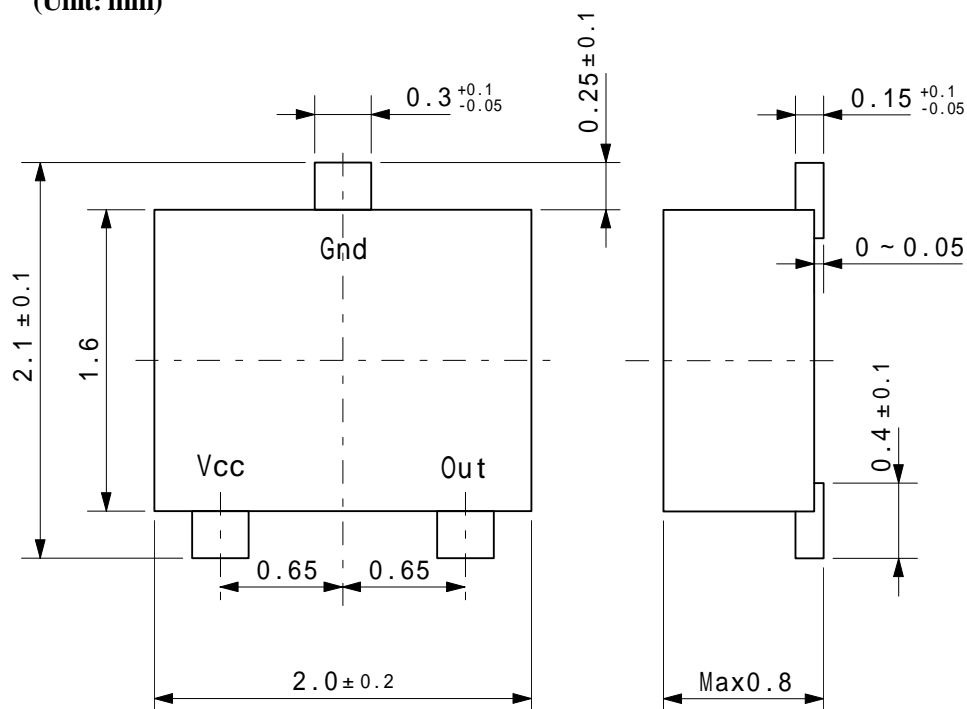
(Ta = 25±3°C unless otherwise specified)

Item	Symbol	Condition	Min	Std	Max	Unit
Source Voltage	-	-	1.6	1.8	3.5	V
Supply Current	(AVG)	Vcc=1.8V	-	3	-	μA
Ambient Temperature	-	-	-40	25	85	°C
Output Voltage	VOH	Vcc=1.8V Iout=1mA	1.6	-	-	V
	VOL	Vcc=1.8V Iout=-1mA	-	-	0.2	V
Operating Magnetic Field	Hon	25±3°C	-	1.7 (1.4)	2.5 (2.0)	mT ^(*1)
	Hoff	25±3°C	0.8 (0.6)	-	-	(kA/m) ^(*2)

*1) 1 [mT](SI) = 10 [G] (CGS)

*2) () = [kA/m](SI)

DIMENSIONS (Unit: mm)



ABSOLUTE MAXIMUM RATINGS

($T_a=25\pm 3^\circ\text{C}$ unless otherwise specified)

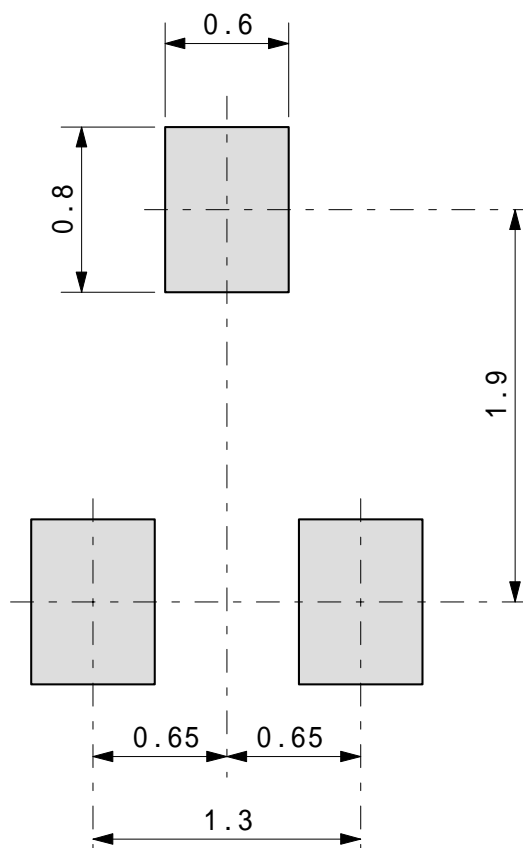
Item	Condition	Specifications	Unit
Supply Voltage	-	5.0	V
Storage Temperature	-	-40 ~ +125	°C

ESD PROTECTION

Human Body Model (HBM) tests according to: MIL-STD-883D Method: 3015.7

Parameter	Symbol	Limited Values		Unit	Notes
		Min	Max		
ESD Voltage	VESD	± 4.0		kV	R=1.5k C=100pF T=25

RECOMMENDED MOUNT PAD (Unit:mm)



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