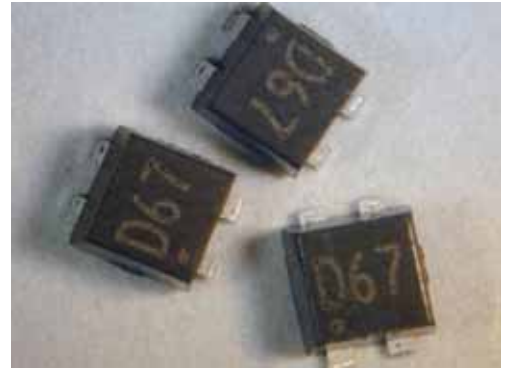


MRUS71D

2-Output Type Ultra Compact MR Sensor with Built-in IC

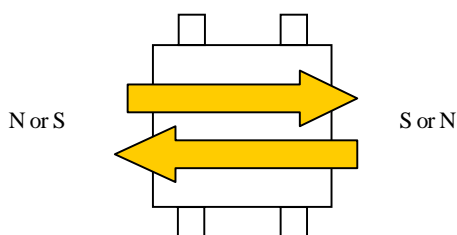
FEATURES

- Low voltage operation: 2.4 to 3.6V
- Micro power consumption (7.5 μ W(Typ):Vdd=2.5V)
- 2-output, 2 independent operating point:
 - Out1: Hon 1.5mT(Typ)
 - Out2: Hon 3.5mT(Typ)
- Operating temperature range: -40°C to +85°C
 - Operating in one way magnetic field
 - Polarity independent
 - RoHS compliant
 - Halogen-free

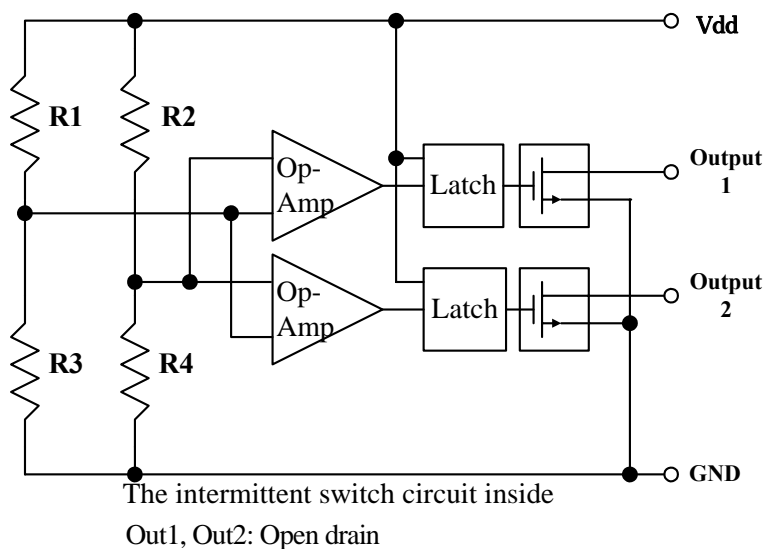


FUNDEMENTAL OPERATION

Direction of Magnetic Field



Circuit Block Diagram



PERFORMANCE

Performance Characteristics (Ta=25±3°C)

	Operating Conditions	Output Voltage	
		Output 1	Output 2
When power switch is ON	H = 0 mT ^(*1) (0 kA/m) ^(*2)	Hi-level	Hi-level
When magnetic field is applied	H 1.5mT (Typ) (1.2kA/m) (Typ)	Lo-level	Hi-level
	H 3.5mT (Typ) (2.8kA/m) (Typ)	Lo-level	Lo-level
When magnetic field is applied	H 1.2 mT (Typ) (1.0kA/m) (Typ)	Hi-level	Hi-level
	H 2.9 mT (Typ) (2.3kA/m) (Typ)	Lo-level	Hi-level

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

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

Recommended Operating Conditions (Ta = 25±3°C, Vdd=2.5V unless otherwise specified)

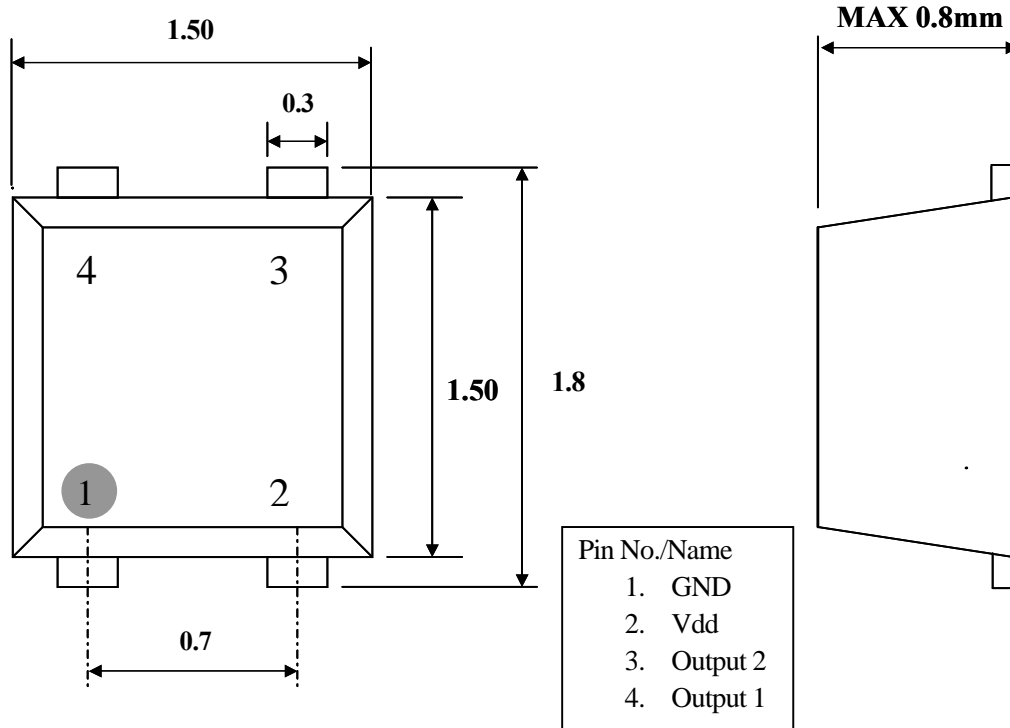
Item	Output	Condition	Min	Typ	Max	Unit
Supply Voltage	Vdd	-	2.4	2.5	3.6	V
Supply Current	(AVG)	Vdd=2.5V	-	3	-	uA
Operating Temperature	-	-	-40	+25	+85	°C
Output Voltage	VOH	Vdd=2.5V Vio=1.8V ^(*3) Pull-up 33kΩ	1.71	-	-	V
Operating Magnetic Field	Output 1	Hon 1 Hi-level	-	1.5 (1.2)	2.5 (2.0)	mT ^(*1) (kA/m) ^(*2)
		Hoff 1 Lo-level	0.5 (0.4)	1.2 (0.8)	-	
	Output 2	Hon 2 Hi-level	-	3.5 (2.8)	4.5 (3.6)	
		Hoff 2 Lo-level	2.2 (1.8)	2.9 (2.3)	-	

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

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

*3) Vio: pull-up power supply

DIMENSIONS (Unit:mm)



ABSOLUTE MAXIMUM RATINGS

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

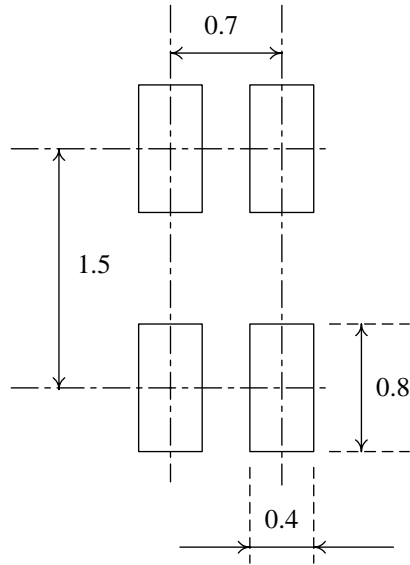
Item	Condition	Specifications	Unit
Supply Voltage	-	6.0	V
Storage Temperature	-	-40 to +125	°C

ESD PROTECTION

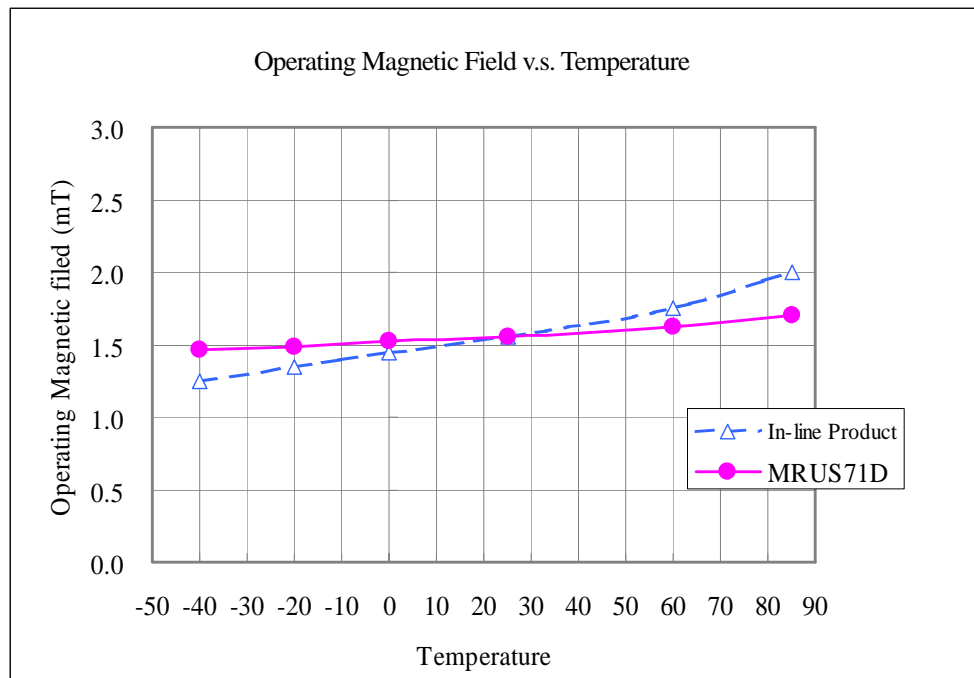
Human Body Model **Min. 2000V (HBM: Min.2000V (MIL-STD-883E 3015.7))**

Machine Model **Min. 200V (JESD22-A115-A)**

RECOMMENDED MOUNT PAD (Unit:mm)



PERFORMANCE OVER TEMPERATURE



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