

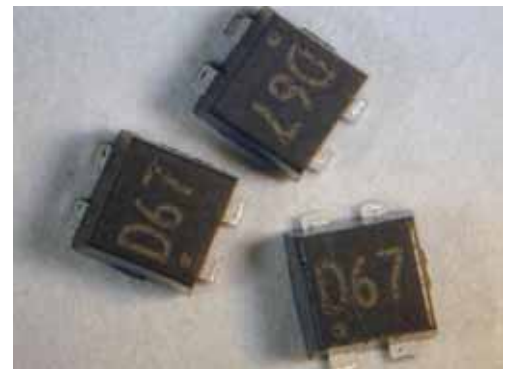
MRUS71D

2-output operating type

Built-in IC Ultra-minimum MR sensor

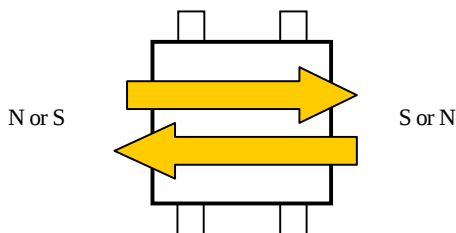
FEATURES

- Operating Voltage: 2.4 to 3.6V
- Micro power consumption (7.5μ W(typ):Vdd=2.5V)
- Operate to two kinds of Magnetic fields(**1.5mT**, **3.5mT(typ)**)
- Operating ambient temperature range: -40°C to +85°C
- Operating in one way magnetic field
- Operating with independent pole (easily manufacture)
- RoHS Compliant

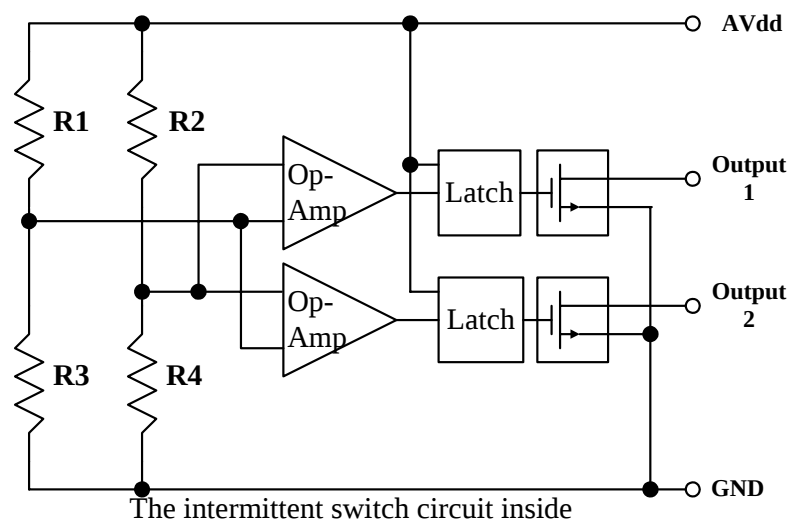


FUNDEMENTAL OPERATION

Direction of Magnetic Field



Circuit Block



PERFORMANCE

Performance Characteristics (Ta=25±3°C)

	Operating require Condition	Output Voltage	
		Output 1	Output 2
When power switch is ON	H = 0 mT (Magnetic Flux Density) {0 A/m (Magnetic Field Strength)}	Hi-level	Hi-level
When magnetic field is applied	H 1.5mT(Typ)(Magnetic Flux Density) {1.2kA/m (Magnetic Field Strength)}	Lo-level	Hi-level
	H 3.5mT(Typ)(Magnetic Flux Density) {2.8kA/m (Magnetic Field Strength)}	Lo-level	Lo-level
When magnetic field is applied	H 1.2 mT(Typ)(Magnetic Flux Density) {1.0kA/m (Magnetic Field Strength)}	Hi-level	Hi-level
	H 2.9 mT(Typ)(Magnetic Flux Density) {2.3kA/m (Magnetic Field Strength)}	Lo-level	Hi-level

Operating Conditions Recommended

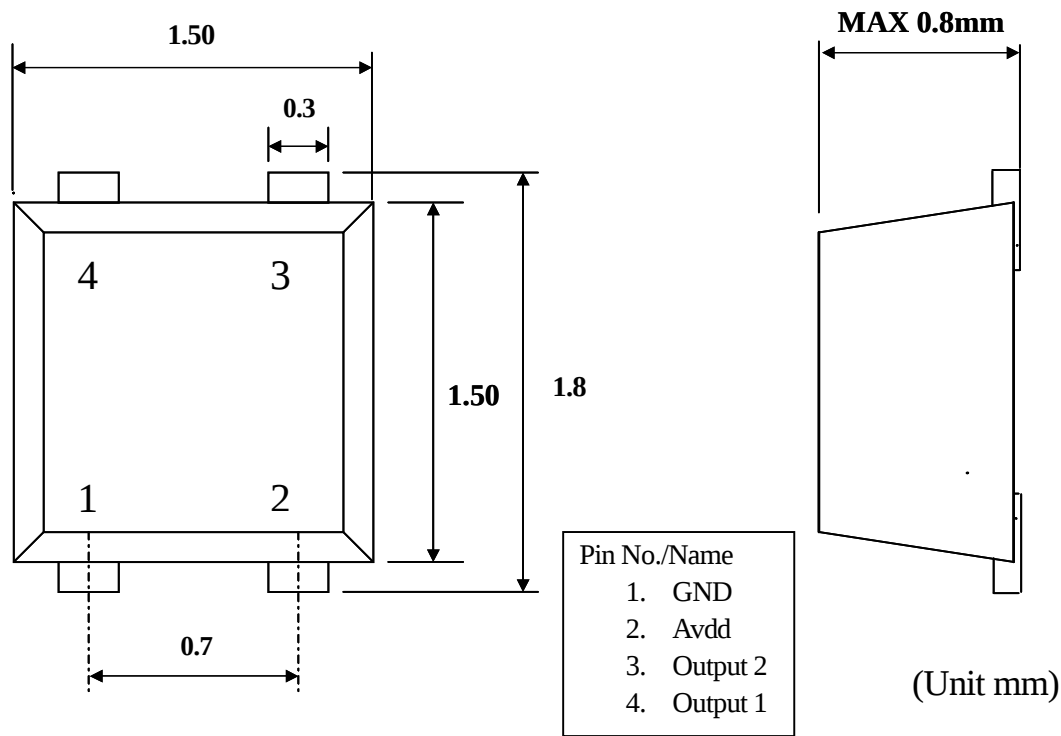
(Ta = 25±3°C unless otherwise specified)

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

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

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

DIMENSIONS



ABSOLUTE MAXIMUM RATINGS

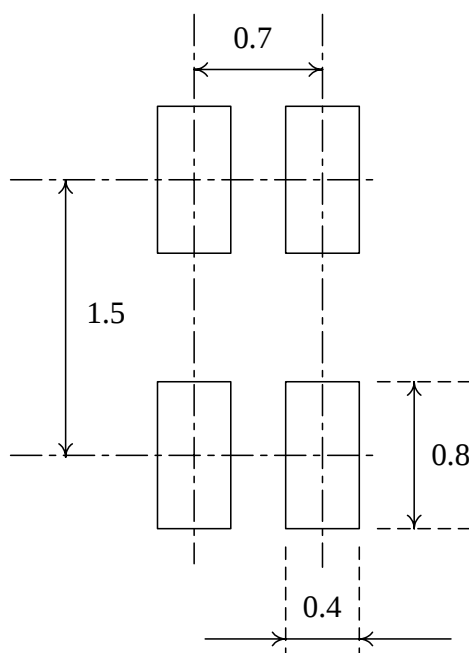
(Ta=25±3°C unless otherwise specified)

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

ESD PROTECTION

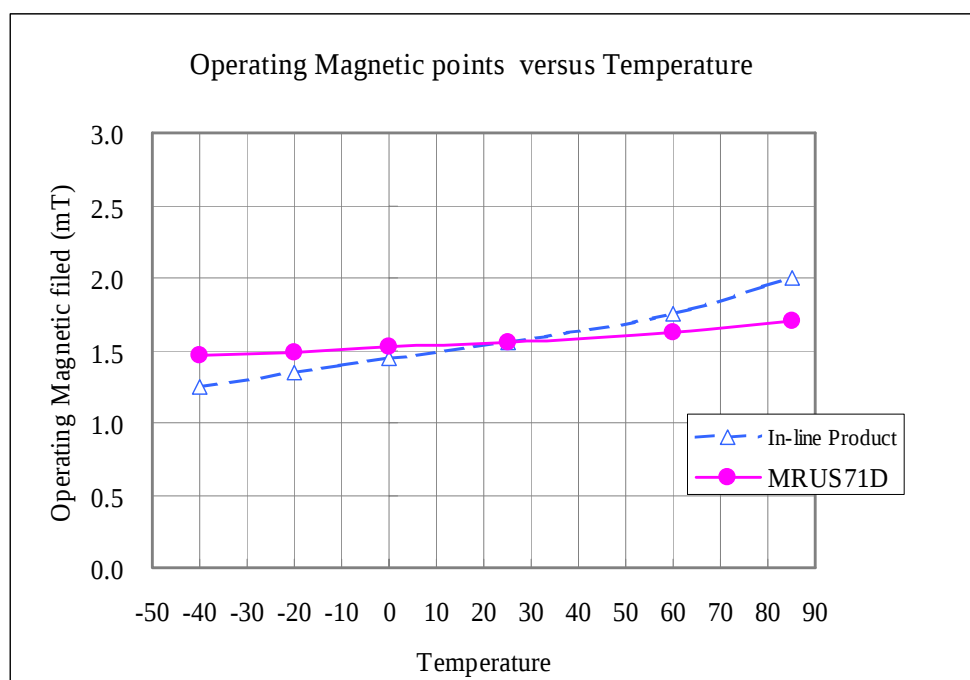
Human Body Model	Min.	2000V (HBM: Min.2000V (MIL-STD-883E 3015.7)
Machine Model	Min.	200V (JESD22-A115-A)

RECOMMENDED MOUNT PAD



(Unit: mm)

PERFORMANCE GRAPHS



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