

MRSS21-E

Built-in IC compact MR sensor

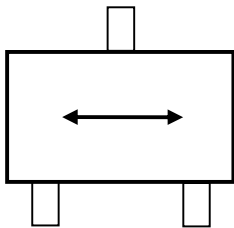
FEATURES

- Low Height , Compact package size
-3pin Mini Mold Package
- Operating in one way magnetic field
- Operating with independent pole
Wide operating supply voltage
RoHS Compliant

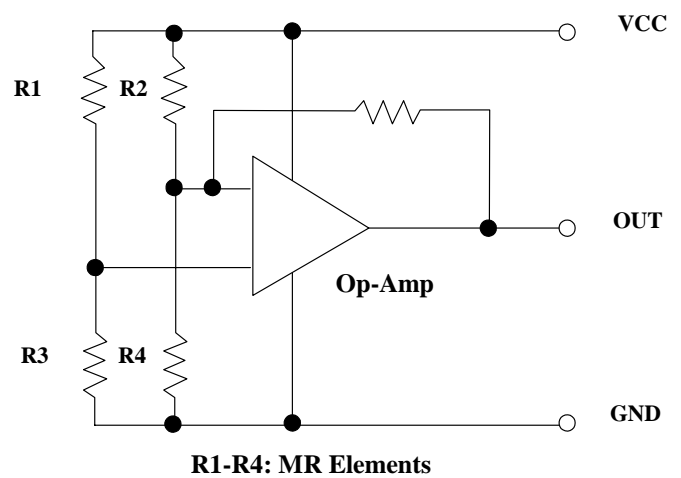


FUNDEMENTAL OPERATION

Direction of Magnetic Field



Circuit Block



PERFORMANCE

Performance Characteristics (Ta= 25±3°)

	Operating require Condition	Output Voltage
When power switch is ON	H = 0 mT (Magnetic Flux Density) {0 A/m (Magnetic Field Strength)}	Lo-level
When magnetic field is applied	H 2.5mT (Magnetic Flux Density) {2.0kA/m (Magnetic Field Strength)}	Hi-level
When magnetic field is applied	H 0.5 mT(Magnetic Flux Density) {0.4kA/m (Magnetic Field Strength)}	Lo-level

Recommended Operating Conditions

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

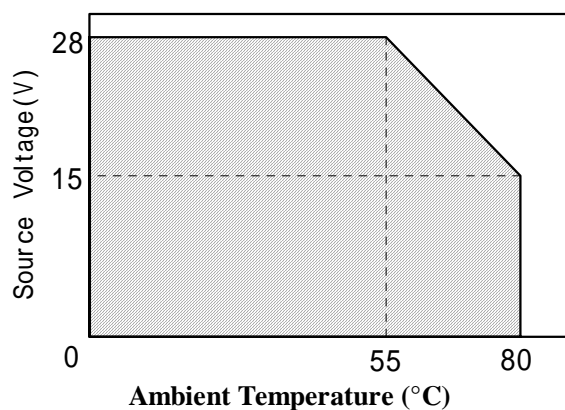
Item	Symbol	Output	Condition	Min	Std	Max	Unit
Supply Voltage (*3)	V	-	-	3	12	28	V
Max Frequency	fmax	-	-	-	3.0	-	kHz
Ambient Temperature	Ta	-	-	-20	25	80	°C
Operating Magnetic Field	Hon	Hi-level Output Hon	25±3°C	-	2.0 (1.6)	2.5 (2.0)	mT ^(*1) (kA/m) ^(*2)
	Hof	Lo-level Output Hoff	25±3°C	0.5 (0.4)	-	-	

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

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

*3) In case of operation in high temperature, please follow the graph below

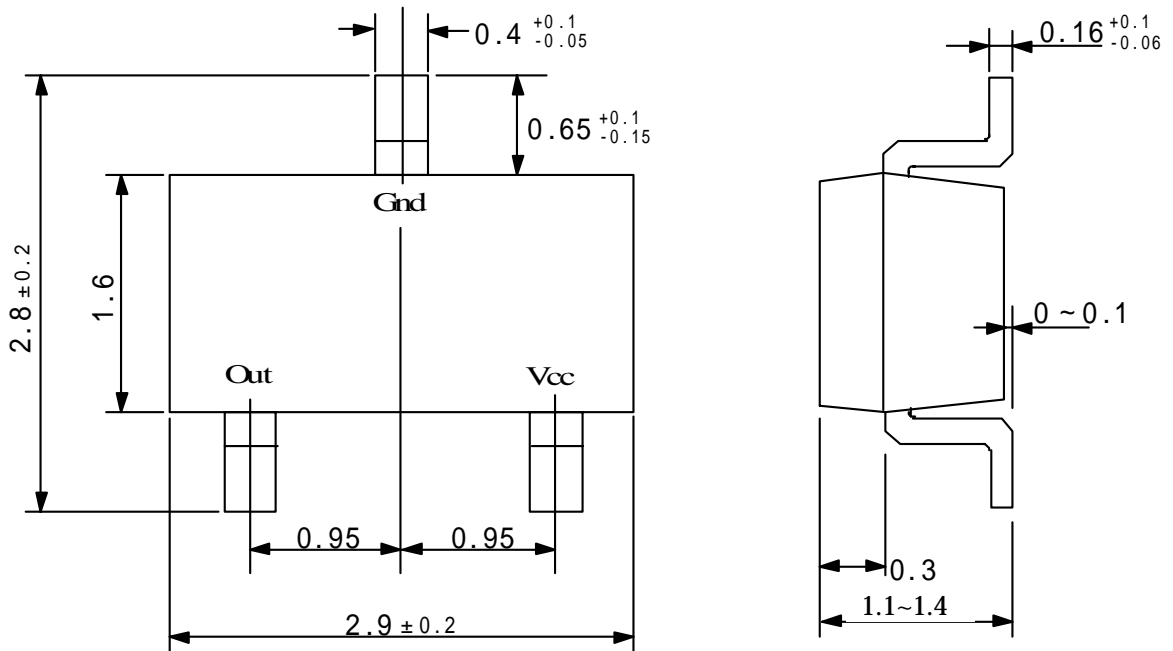
Recommend Condition



Output Ratings

Item	Condition	Min	Std	Max	Unit
Output Voltage 1 Hi	V _{cc} =12V, R _L =10.0k Ω	10.0	-	-	V
Output Voltage 1 Lo	V _{cc} =12V, R _L =10.0k Ω	-	-	1.0	V
Output Voltage 2 Hi	V _{cc} =5V, R _L =10.0k Ω	3.5	-	-	V
Output Voltage 2 Lo	V _{cc} =5V, R _L =10.0k Ω	-	-	1.0	V
Slew Rate	V _{cc} =12V, R _L =10.0k Ω	-	0.5	-	V/ μ s
Output response frequency	V _{cc} =12V, R _L =10.0k Ω	-	3.0	-	KHz

DIMENSIONS (Unit: mm)

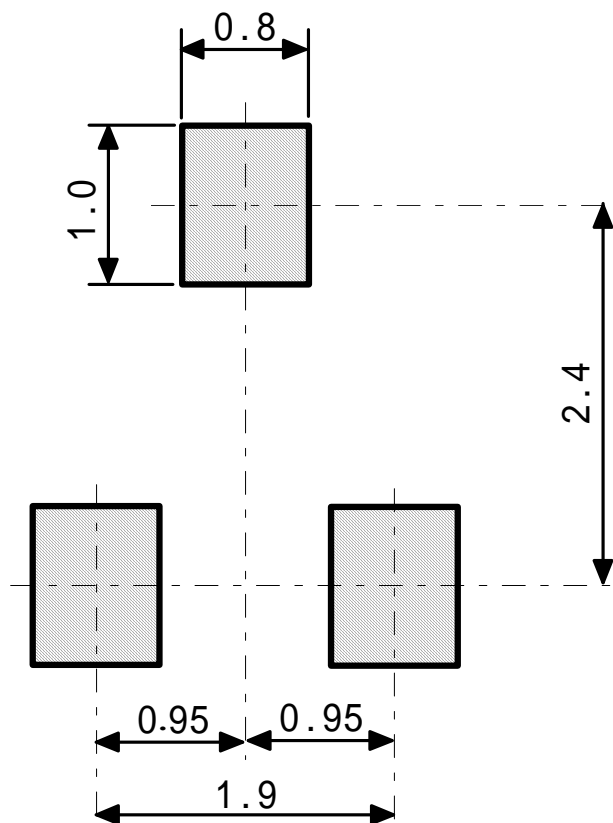


ABSOLUTE MAXIMUM RATINGS

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

Item	Symbol	Condition	Specifications	Unit
Supply Voltage	V _{cc}	-	33.0	V
Storage Temperature	T _{stg}	-	-40 ~ +125	$^{\circ}$ C

RECOMMENDED MOUNT PAD (Unit: mm)



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EWV-19-0174-03E, September, 2010
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