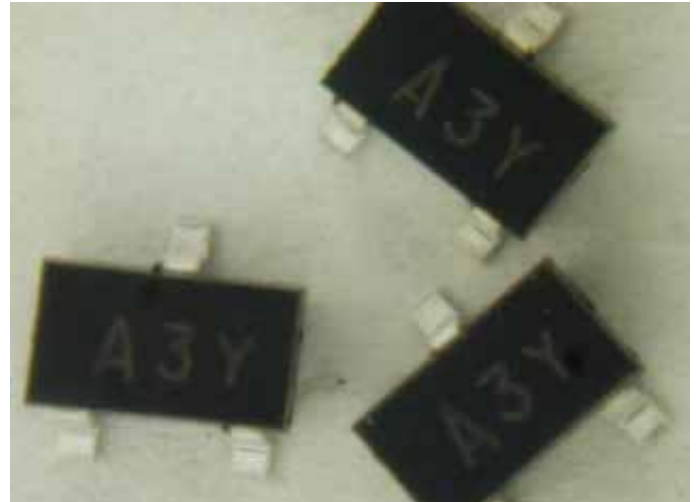


MRSS21-E

Built-in IC ultra-minimum MR sensor

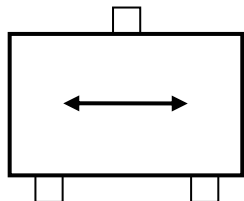
FEATURES

- Ultra –small size MR (Magneto-resistance) sensor
-3pin Mini Mold Package
- Operating in one way magnetic field
- High sensitivity (**2mT**(typ) Ta=25°C)
- Operating with independent pole
- Superior Temperature stability
- Wide operating supply voltage
- Lead Free Goods

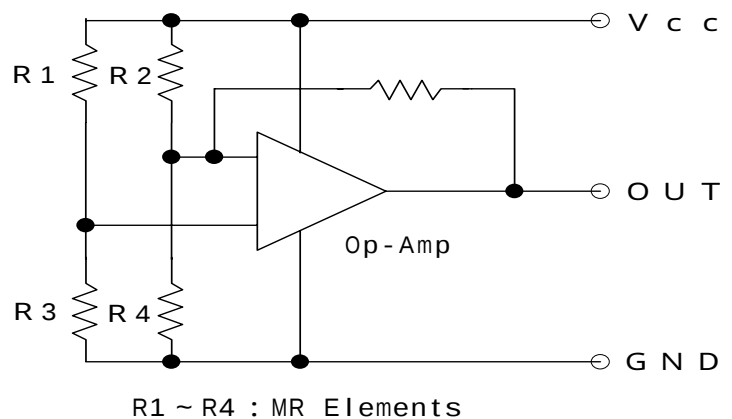


FUNDEMENTAL OPERATION

Direction of Magnetic Field



Circuit Block



PERFORMANCE

Performance Characteristics

	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 2.0(Typ)mT(Magnetic Flux Density) {1.6kA/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

Operating Conditions Recommended

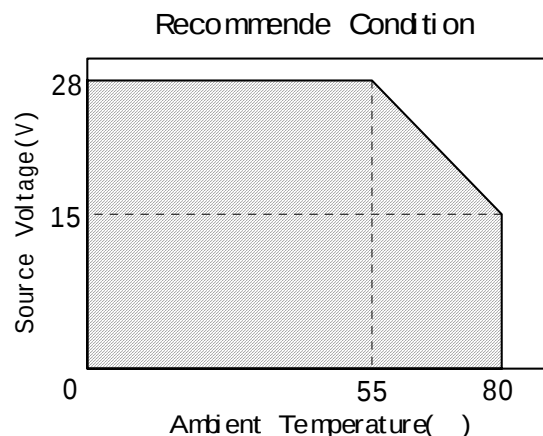
(Ta = 25±3°C unless otherwise specified)

Item	Symbol	Output	Condition	Min	Std	Max	Unit
Supply Voltage (*3)	V	-	-	3	12	28	V
Load resistance	RL	(AVG)	Vcc=12V	10.0	-	-	kΩ
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)

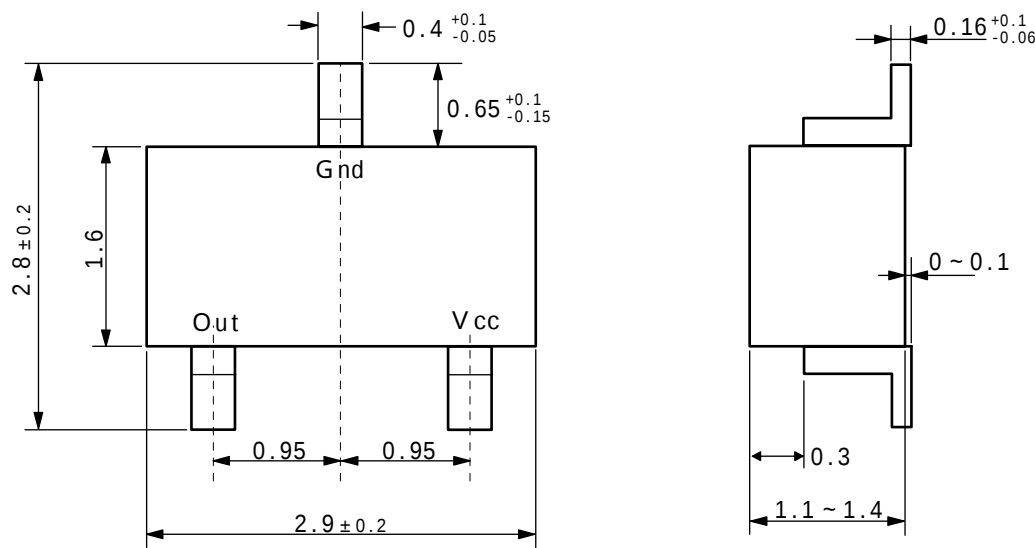
*3) In case of operation in high temperature, please follow the graph below



Output Ratings

Item	Condition	Min	Std	Max	Unit
Output Voltage 1 Hi	Vcc=12V, RL=10.0kolm	10.0	-	-	V
Output Voltage 1 Lo	Vcc=12V, RL=10.0kolm	-	-	1.0	V
Output Voltage 2 Hi	Vcc=5V, RL=10.0kolm	3.5	-	-	V
Output Voltage 2 Lo	Vcc=5V, RL=10.0kolm	-	-	1.0	V
Slew Rate	Vcc=12V, RL=10.0kolm	-	0.5	-	V/us
Output response frequency	Vcc=12V, RL=10.0kolm	-	3.0	-	KHz

DIMENSIONS (Unit:mm)

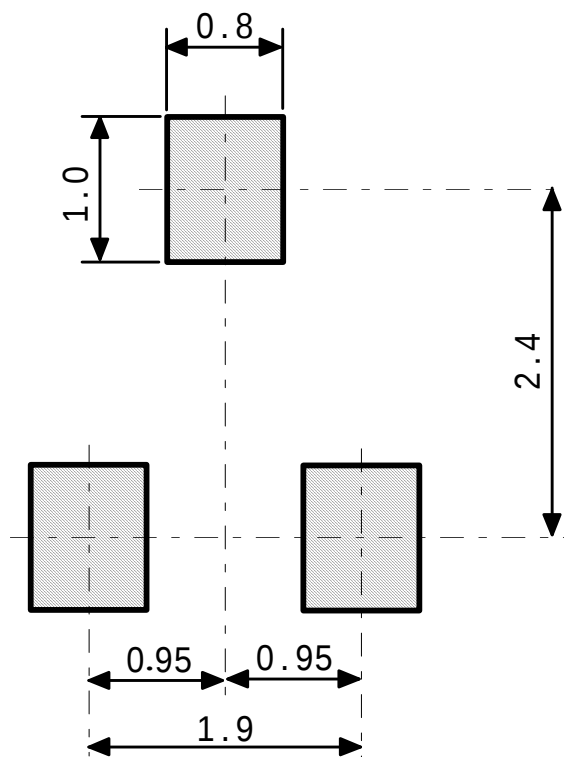


ABSOLUTE MAXIMUM RATINGS

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

Item	Symbol	Condition	Specifications	Unit
Supply Voltage	Vcc	-	33	V
Storage Temperature	Tstg	-	-40 ~ +125	°C

RECOMMENDED MOUNT PAD



(Unit:mm)



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