

MRSS22L

Micropower Built-in IC Ultra-minimum MR Sensor

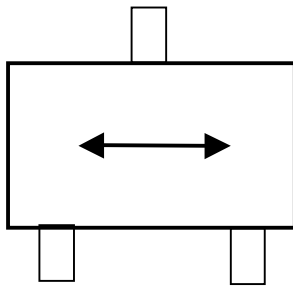
FEATURES

- Micropower : 15 μ W (Typ) at Vcc=3V .
(Suited for Battery-operation).
- High Sensitivity: 2mT (Typ).
- Ultra-small Size
MR (Magneto-resistance) Sensor.
- Operating in One Way Magnetic Field.
- Operating with Independent Pole.
(Easily Manufacture).
- Superior Temperature Stability.

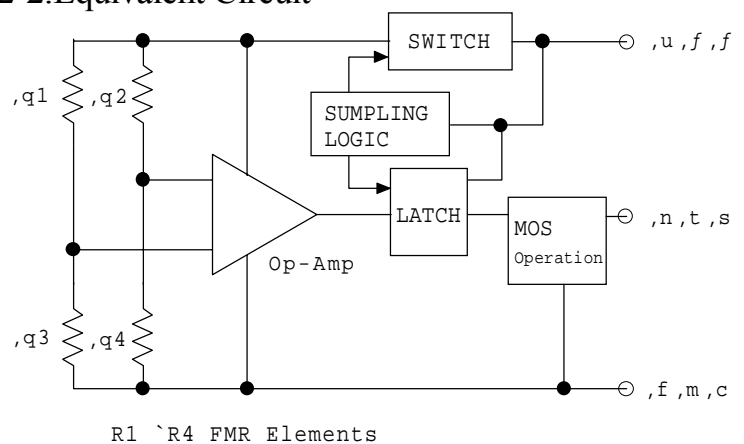


A Fundamental Operation

2-1.Direction of Magnetic Field



2-2.Equivalent Circuit



ABSOLUTE MAXIMUM RATINGS

(Ta=+25 \pm 3 $^{\circ}$ C, unless otherwise noted)

Parameter	Unit	Values		
		Min.	Typ.	Max.
Source Voltage	V	–	–	5.0
Storage Temperature	$^{\circ}$ C	–40	–	+125

PERFORMANCE

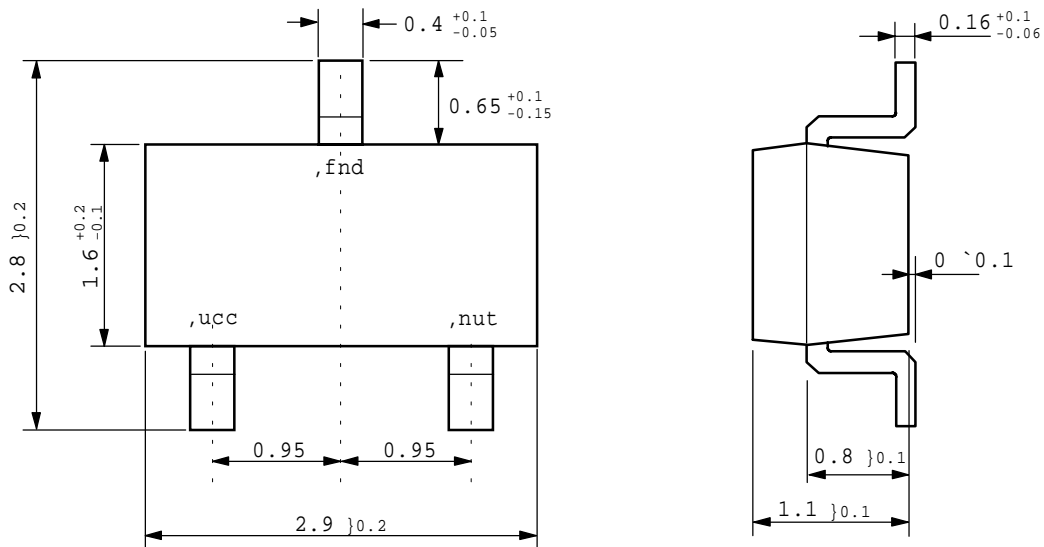
(Ta = 25±3 °C unless otherwise noted)

Parameter	Operating Require Condition	Output Voltage
When Power Switch is ON	H = 0 mT (Magnetic Flux Density)	Hi-level
When Magnetic Field is Applied	H ≥ 2.0(Typ)mT (Magnetic Flux Density)	Lo-level
When Magnetic Field is Applied	H ≤ 0.5 mT (Magnetic Flux Density)	Hi-level

Parameter	Output	Condition	Values			Unit
			Min.	Min.	Min.	
Source Voltage	–	–	2.5	3.0	3.7	V
Source Current	–	Vcc=3V	–	5	–	μA
Ambient Temperature	–	–	–20	+25	80	°C
Output Voltage	VOH	Vcc=3V,Iout=2mA	2.7	–	–	V
	VOL	Vcc=3V,Iout=–2mA	–	–	0.3	V
Operating Magnetic Field	Hi-level output Hon	25±3 °C	–	2.0	2.5	mT ^(*1)
		–20 to +80 °C	–	–	3.0	
	Lo-level output Hoff	25±3 °C	0.5	–	–	
		–20 to +80 °C	0.5	–	–	

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

DIMENSIONS (Unit:mm)



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