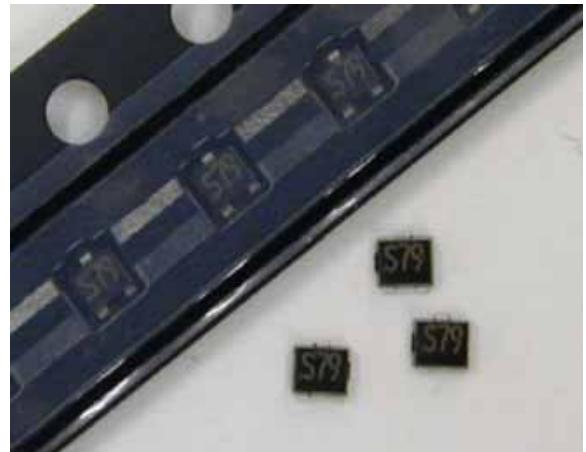


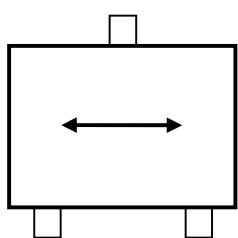
## FEATURES

- Low Voltage Operation
- Micro power ( $6\mu\text{W}$ (typ): $V_{cc}=1.8\text{V}$ )
  - Suited for battery-operation
- Very Compact Flat Lead Package size
  - (PKG Height: Max 0.55mm)
- Operating ambient temperature range: -40°C to +85°C
  - Operating with independent pole (easily manufacture)
  - Superior Temperature Stability
  - RoHS Compliant
  - Halogen Free goods

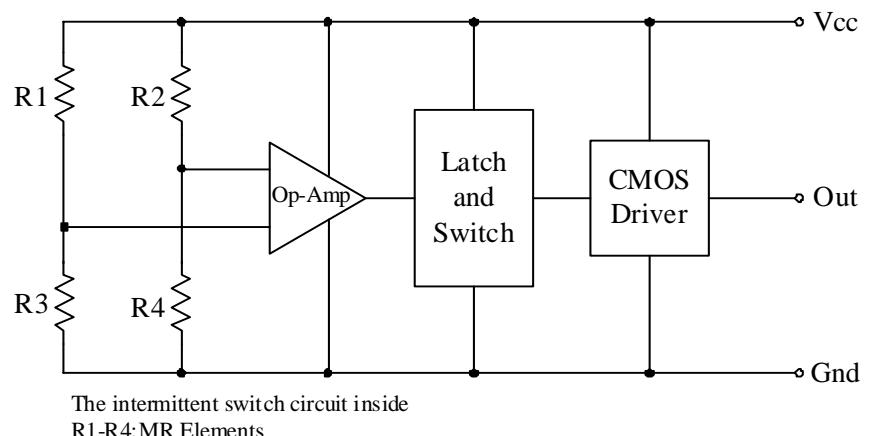


## FUNDAMENTAL OPERATION

Direction of Magnetic Field



Circuit Block



The intermittent switch circuit inside  
R1-R4:MR Elements



## PERFORMANCE

Performance Characteristics ( $T_a=25\pm3^{\circ}\text{C}$ )

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

Operating Conditions Recommended

( $T_a = 25\pm3^{\circ}\text{C}$  unless otherwise specified)

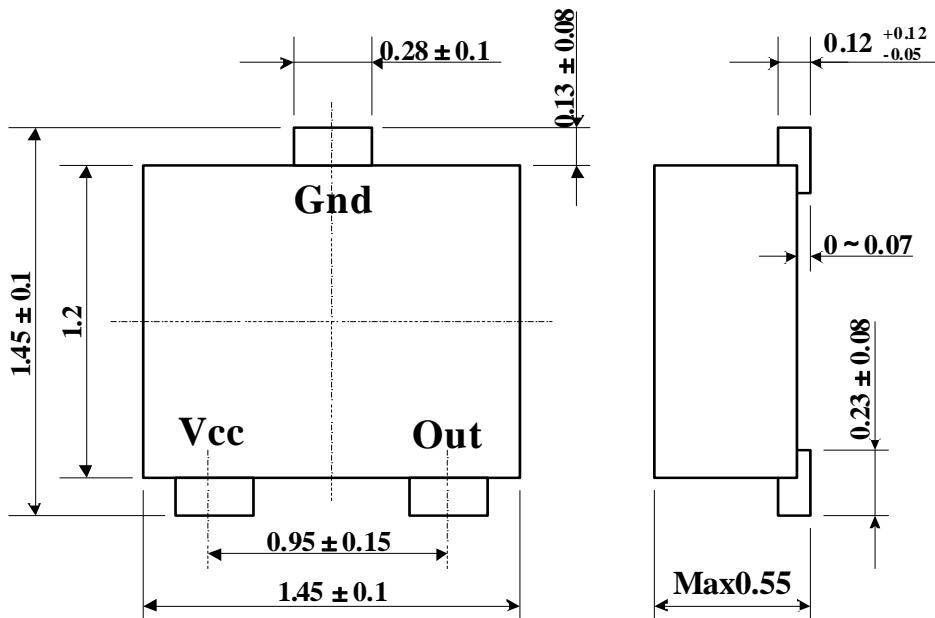
Item	Symbol	Condition	Min	Std	Max	Unit
Source Voltage	-	-	1.6	1.8	3.5	V
Supply Current	(AVG)	$V_{cc}=1.8\text{V}$	-	3.0	-	$\mu\text{A}$
Ambient Temperature	-	-	-40	25	85	$^{\circ}\text{C}$
Output Voltage	VOH	$V_{cc}=1.8\text{V}$ $I_{out}=1\text{mA}$	1.6	-	-	V
	VOL	$V_{CC}=1.8\text{V}$ $I_{out}=-1\text{mA}$	-	-	0.2	V
Operating Magnetic Field	Hon	$25\pm3^{\circ}\text{C}$	-	1.5 (1.2)	2.5 (2.0)	$\text{mT}^{*1}$
	Hoff	$25\pm3^{\circ}\text{C}$	0.5 (0.4)	-	-	$(\text{kA/m})^{*2}$

\*1)  $1 \text{ [mT]}(\text{SI}) = 10 \text{ [G]} (\text{CGS})$

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



## DIMENSIONS (Unit: mm)



## ABSOLUTE MAXIMUM RATINGS

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

Item	Condition	Specifications	Unit
Supply Voltage	-	5.0	V
Storage Temperature	-	-40 ~ +125	°C

## ESD PROTECTION

Human Body Model (HBM) tests according to: MIL-STD-883D Method: 3015.7

Parameter	Symbol	Limited Values		Unit	Notes
		Min	Max		
ESD Voltage	V <sub>ESD</sub>	± 4.0		kV	R=1.5k C=100pF T=25



**RECOMMENDED MOUNT PAD** (Unit: mm)

