

ULTRA SMALL INDUCTIVE SENSOR

P/N: RJA-3420-S000



Features

- High output voltage
- High sensitivity
- Minute size
- Low power consumption
- Low temperature dependency
- Low hysteresis

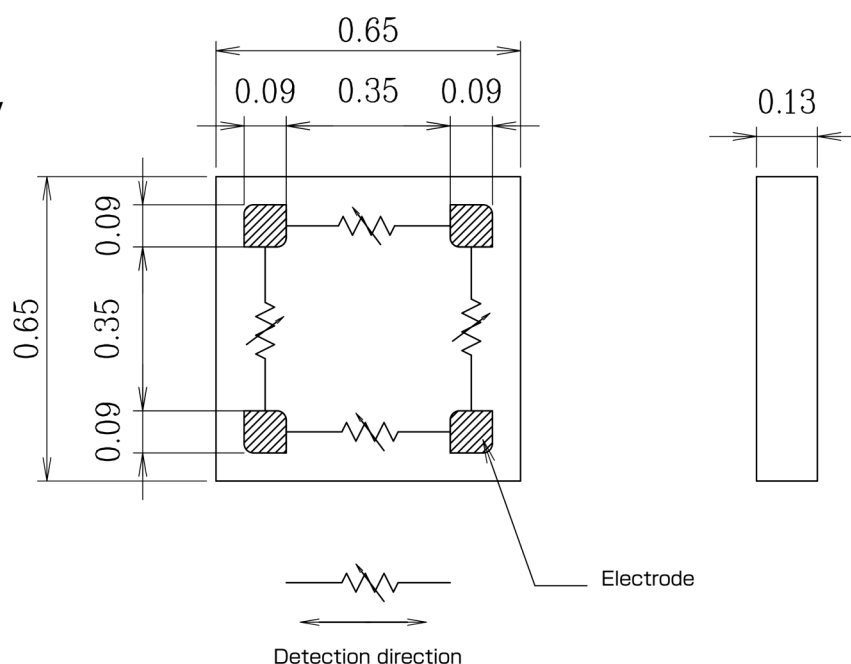
Structure

- Sensor : nano-granular TMR (Full bridge circuit)
- Substrate : Si
- Electrode : Au

Applications

- Encoder
- Linear scale
- Current sensor
- Compass
- Bill acceptor, etc

Outside dimension (mm)



Electro-magnetic specification

Supply voltage, V_{cc}	1~5 V
Absolute maximum rating, V_{cc}	10 V
Output voltage, V_{out}	350 mV _{P-P} (Min) (in the case of $V_{cc}=5$ V, rotation magnetic field $H=H_k$, and differential output $V_{out1}-V_{out2}$)
Offset voltage, V_{off}	150 mV (Max)
ESD voltage	100 V (Typ, human body mode)
Temperature range	-40 °C~125 °C

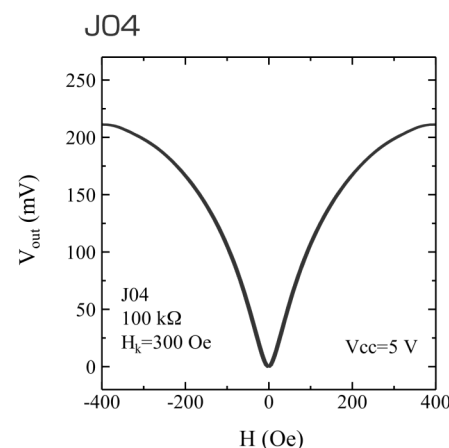
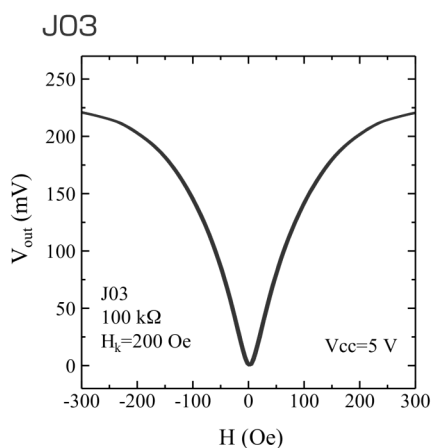
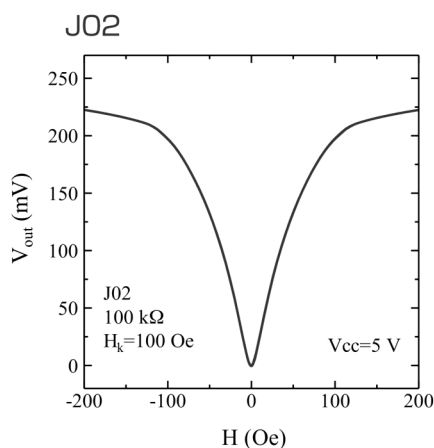
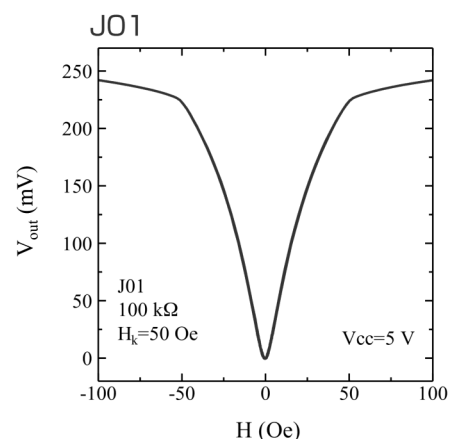
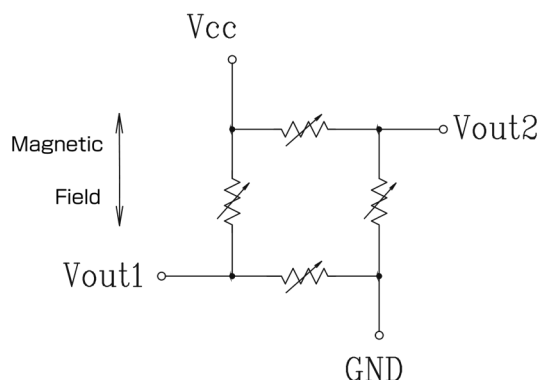
Lline-up

Model No.	Resistance (without field)	Effective magnetic field, H_k
01	100 kΩ	±4 kA/m (50 Oe)
02	100 kΩ	±8 kA/m (100 Oe)
03	100 kΩ	±16 kA/m (200 Oe)
04	100 kΩ	±24 kA/m (300 Oe)



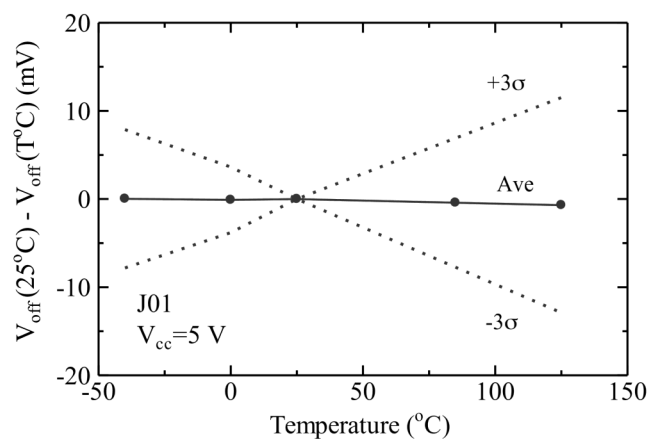
Output voltage characteristic

- The vertical axis shows the differential output ($V_{out1} - V_{out2}$) at the supply voltage (V_{cc}) of 5 V.
- The magnetic field was applied along the direction of the arrow.



Temperature characteristics (reference data)

Offset voltage



Output voltage

