



SK8509

LINEAR INTEGRATED CIRCUIT

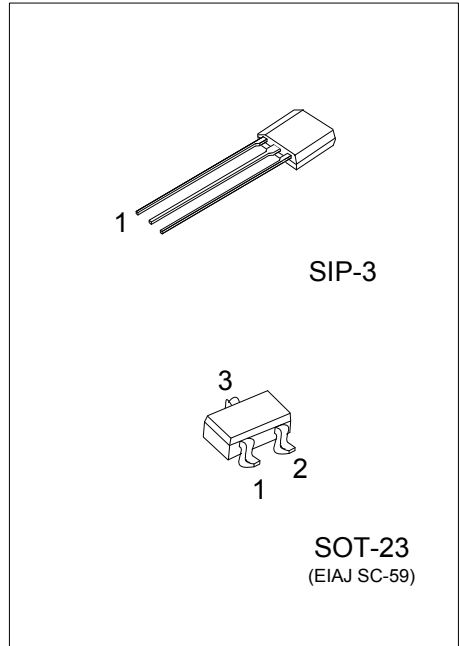
HALL-EFFECT SENSOR IC

■ DESCRIPTION

SK8509 is a semiconductor integrated circuit utilizing the Hall effect. It has been so designed as to operate in the accurately track extremely small changes in magnetic flux density-changes generally too small to operate Hall-effect switches. This Hall IC is suitable for application to various kinds of sensors, contact-less switches, motion detectors, gear tooth sensors, and proximity detectors, and the like.

■ FEATURES

- * Wide Supply Voltage Range of 4V to 7V
- * Wide Temperature Operation Range of -20°C ~+85°C
- * The Life is Semipermanent because it Employs Contactless Parts



■ ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|-----------------|---------------|---------|----------------|---|---|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| SK8509L-AE3-R | SK8509G-AE3-R | SOT-23 | I | O | G | Tape Reel |
| SK8509L-G03-B | SK8509G-G03-B | SIP-3 | I | G | O | Tape Box |
| SK8509L-G03-K | SK8509G-G03-K | SIP-3 | I | G | O | Bulk |

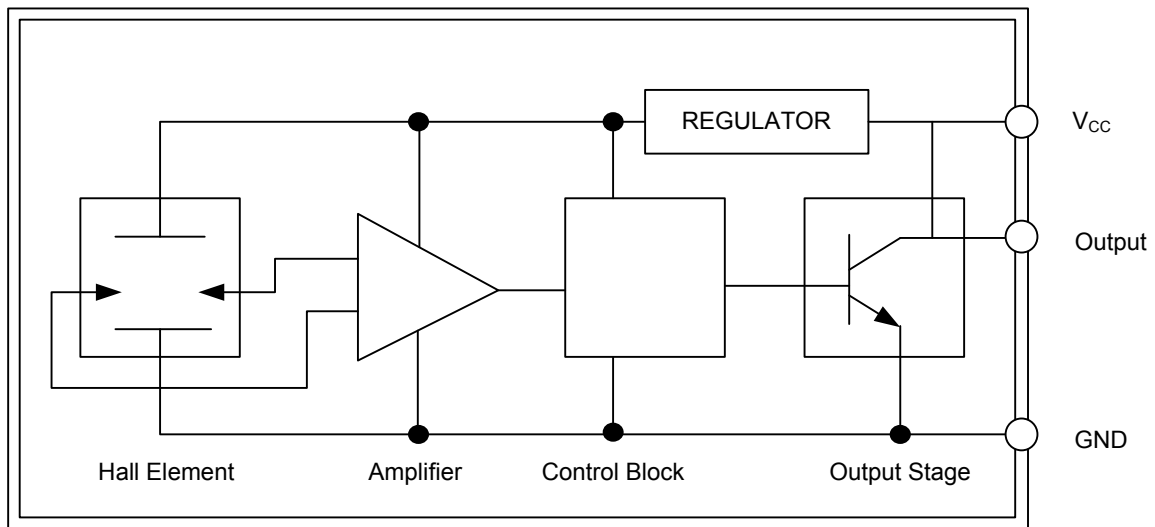
Note: Pin Assignment: I: V_{CC} O: V_{OUT} G: GND

| | |
|----------------------|---|
| <p>SK8509G-AE3-R</p> | <p>(1) B: Tape Box, K: Bulk, R: Tape Reel</p> <p>(2) AE3: SOT-23, G03: SIP-3</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p> |
|----------------------|---|

■ MARKING

| SIP-3 | SOT-23 |
|-------|--------|
| | |

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS

| PARAMETER | SYMBOL | RATINGS | UNIT |
|-------------------------------|-----------|------------|------|
| Supply Voltage | V_{CC} | 7V | V |
| Supply Current | I_{CC} | 10 | mA |
| Operating Ambient Temperature | T_{OPR} | -20 ~ +85 | °C |
| Storage Temperature | T_{STG} | -55 ~ +150 | °C |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, $V_{CC}=5\text{V}$)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------|------------------|-----------------|------|------|------|------|
| Operating Voltage | V_{CC} | | 4 | | 7 | V |
| Quiescent Output Voltage | V_{OUT} | B=0G | 2.25 | 2.50 | 2.75 | V |
| Supply Current | I_{CC} | | | 3 | 10 | mA |
| Sensitivity | ΔV_{OUT} | B=0G ~ ±900G | 1.0 | 1.7 | 2.5 | mV/G |

■ PACKAGE INFORMATION

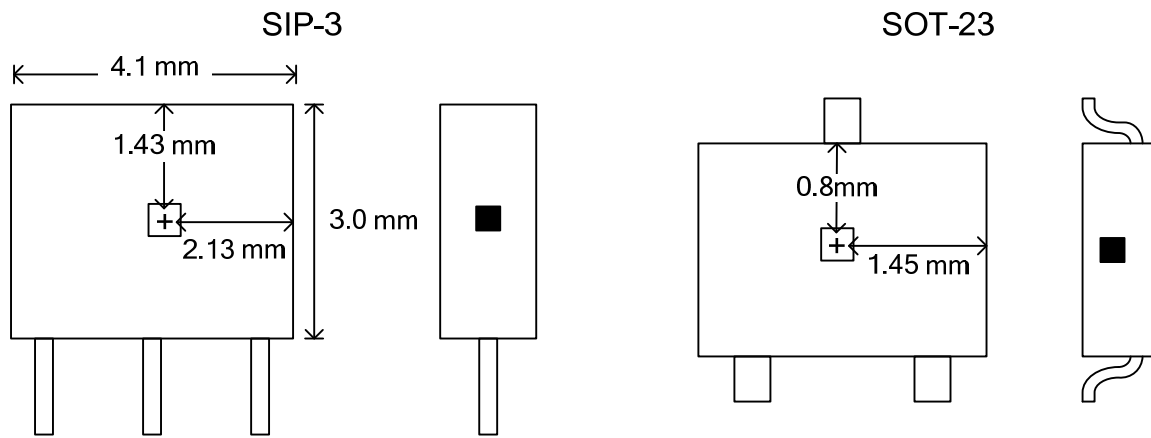
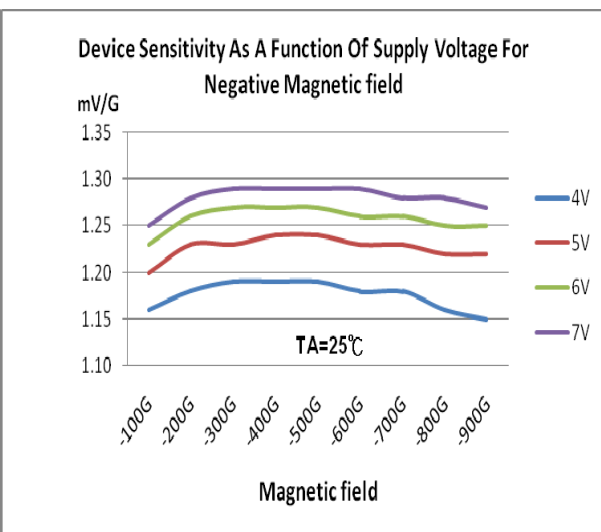
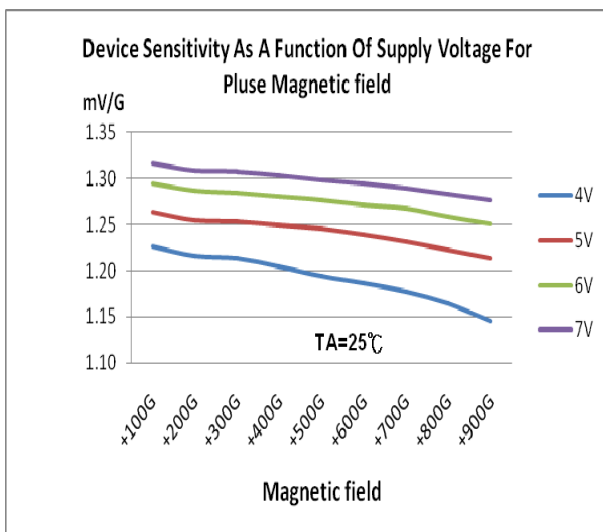
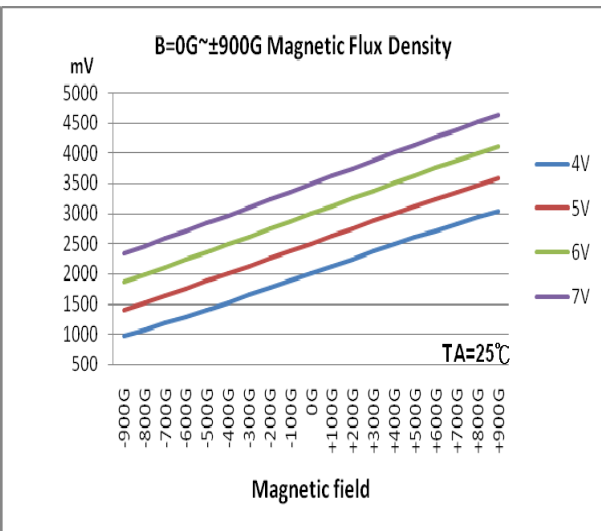
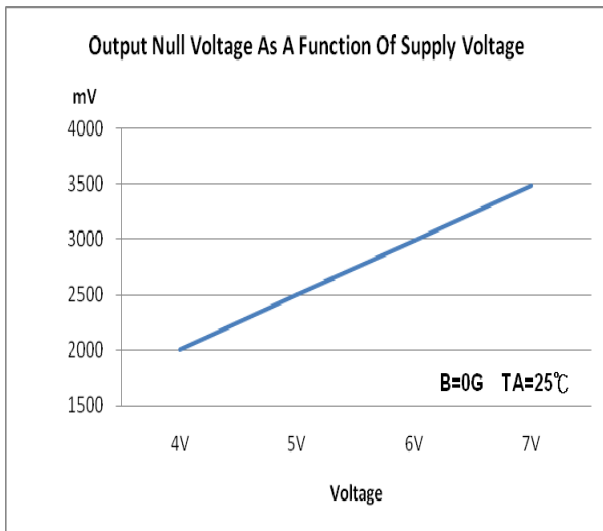
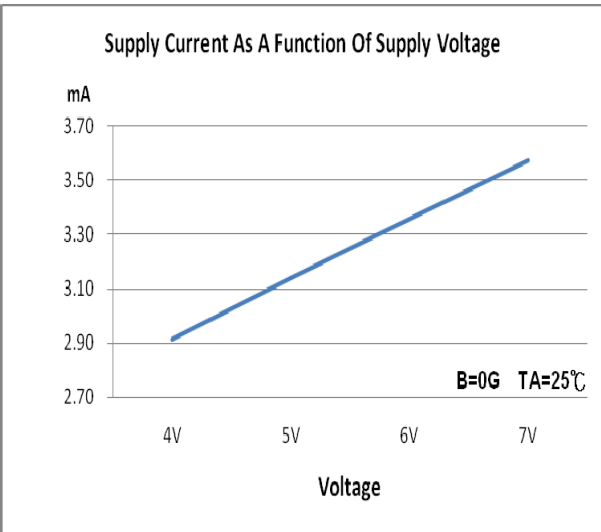
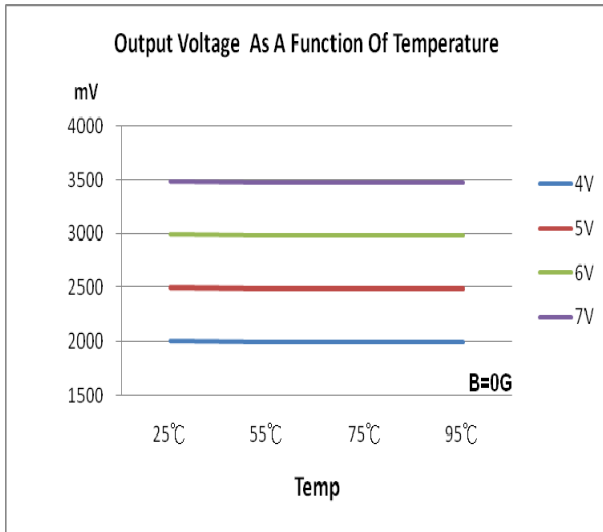


Fig. 1 SENSOR LOCATIONS

■ TYPICAL CHARACTERISTICS



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