# UNISONIC TECHNOLOGIES CO., LTD

# SK8509

## LINEAR INTEGRATED CIRCUIT

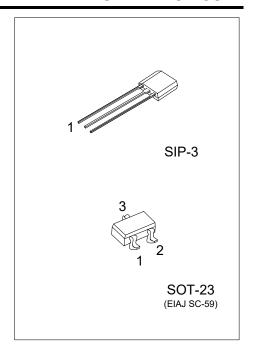
# HALL-EFFECT SENSOR IC

#### **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**

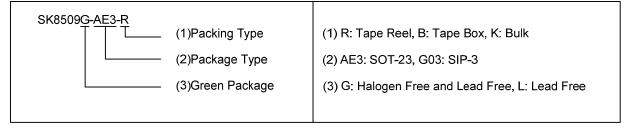
- \* Wide Supply Voltage Range of 4V to 7V
- \* Wide Temperature Operation Range of -20°C ~+85°C
- \* The Life is Semipermanent because it Employs Contactless Parts



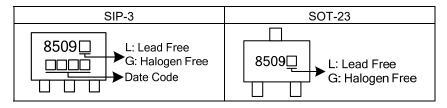
#### **ORDERING INFORMATION**

Ordering Number		Daakana	Pin Assignment			De alcin a	
Lead Free	Halogen Free	Package	1	2	3	Packing	
SK8509L-AE3-R	SK8509G-AE3-R	SOT-23	I	0	G	Tape Reel	
SK8509L-G03-B	SK8509G-G03-B	SIP-3	I	G	0	Tape Box	
SK8509L-G03-K	SK8509G-G03-K	SIP-3		G	0	Bulk	

 $O \colon V_{OUT}$ G: GND Pin Assignment: I: V<sub>CC</sub> Note:

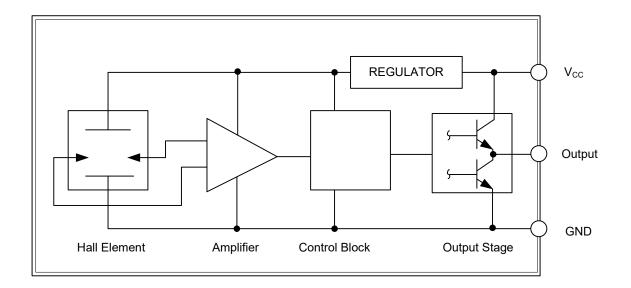


#### **MARKING**



www.unisonic.com.tw 1 of 6

# ■ BLOCK DIAGRAM



#### ■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sub>CC</sub>	7	<b>V</b>
Supply Current	I <sub>CC</sub>	10	mA
Operating Ambient Temperature	T <sub>OPR</sub>	-20 ~ +85	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ <b>+</b> 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<sub>A</sub>=25°C, V<sub>CC</sub>=5V)

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 <sub>CC</sub>			3	10	mA
Sensitivity	$\Delta V_{OUT}$	B=0G ~ ±900G	1.0	1.7	2.5	mV/G

### PACKAGE INFORMATION

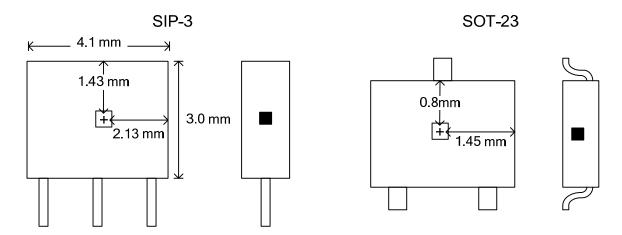
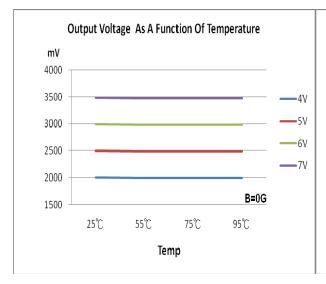
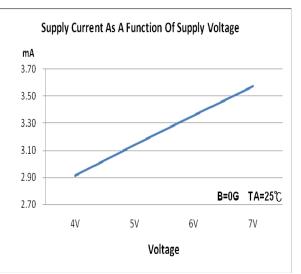
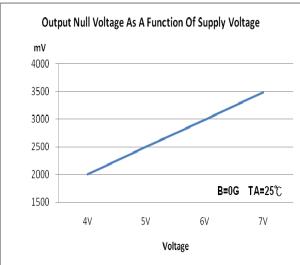


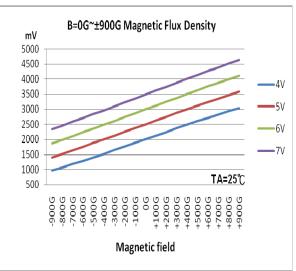
Fig. 1 SENSOR LOCATIONS

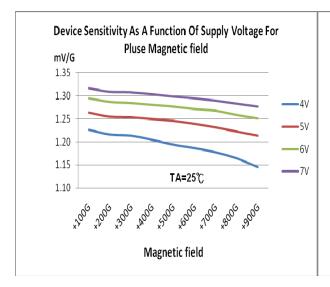
#### **■ TYPICAL CHARACTERISTICS**

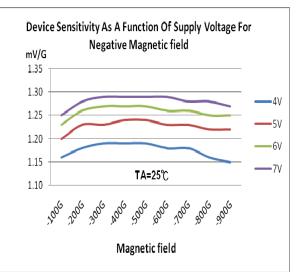












UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

