

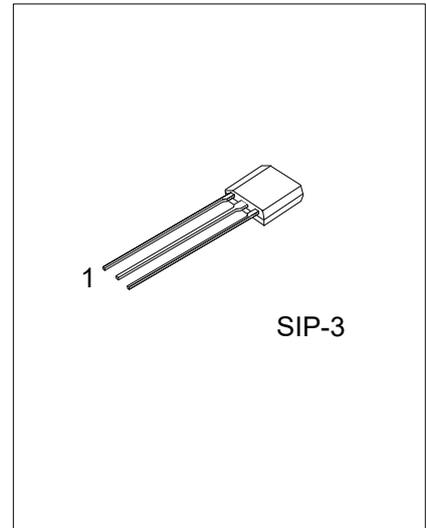


UH495

Preliminary

LINEAR INTEGRATED CIRCUIT

SOLID STATE SENSORS MINIATURE RATIOMETRIC LINEAR



DESCRIPTION

UTC **UH495** Linear Hall-effect sensor is small, versatile linear Hall-effect device. The linear output voltage is set by the supply voltage and varies in proportion to the strength of the magnetic field. A new Hall effect integrated circuit chip provides increased temperature stability and sensitivity. The quad Hall sensing element minimizes the effects of mechanical or thermal stress on the output.

FEATURES

- * Low power consumption
- * Single current sinking or current sourcing linear output
- * Rail-to-rail operation provides more useable signal for higher accuracy
- * Operating temperature range of -40 ~ +150°C
- * Responds to either positive or negative gauss
- * Quad Hall sensing element for stable output

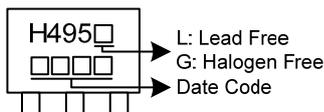
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UH495L-G03-B	UH495G-G03-B	SIP-3	I	G	O	Tape Box
UH495L-G03-K	UH495G-G03-K	SIP-3	I	G	O	Bulk

Note: Pin Assignment: I: V_{DD} G: GND O: Output

<p>UH495G-G03-B</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) B: Tape Box, K: Bulk (2) G03: SIP-3 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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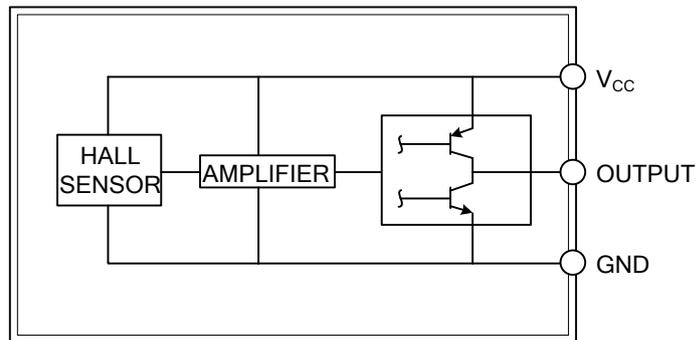
MARKING



■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	V _{CC}	Supply power pin.
2	GND	Ground.
3	OUTPUT	Output pin.

■ BLOCK DIAGRAM



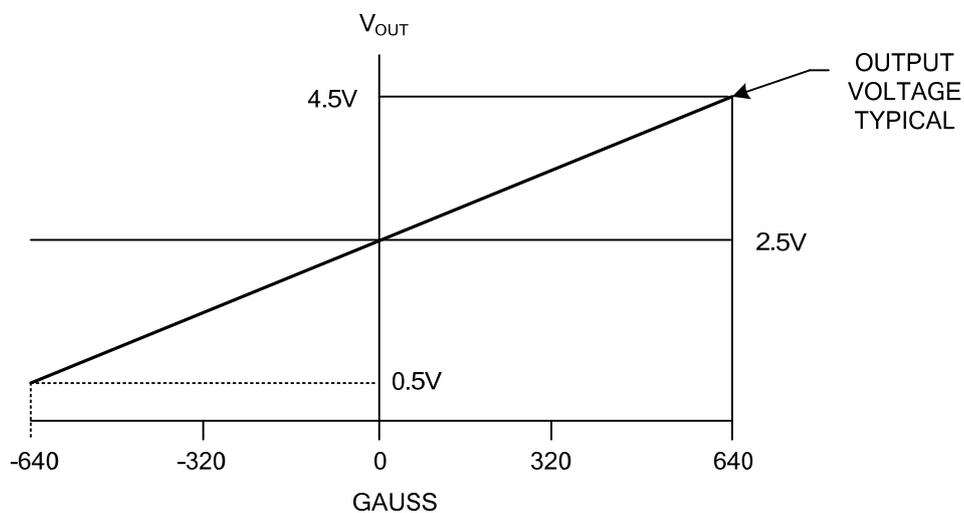
■ ABSOLUTE MAXIMUM RATING ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage (Operating)	V_{CC}	12	V
Output Current	I_{OUT}	2	mA
Operating Temperature Range	T_A	-40 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150	$^\circ\text{C}$

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 ($V_{CC}=5.0\text{V}$, $T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	V_{CC}		4.5		10.5	V
Supply Current @ 25°C	I_{CC}	$V_{CC}=5.0\text{V}$		6.0	8.7	mA
Output Current	Source	$V_{CC}>4.5\text{V}$	1.0	1.5		mA
	Sink	$V_{CC}>4.5\text{V}$	0.6			
		$V_{CC}>5.0\text{V}$	1.0			
Magnetic Range			± 600	± 670		Gauss
Null (Output @ 0 Gauss)		$V_{CC}=5.0\text{V}$	2.4	2.5	2.6	V
Sensitivity	ΔV_{OUT}	$V_{CC}=5.0\text{V}$	2.925	3.125	3.325	mV/G

TYPICAL CHARACTERISTICS $V_{CC}=5V$ 

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