Indium Antimonide SH Series **Hall Sensors**

Description

The SH series Hall effect sensors are four terminal Indium Antimonide devices that are extremely sensitive to low magnetic fields. These devices produce an output voltage, Vh, proportional to the product of the input current, Ic, and the magnetic flux density, B.

Features

- Low Cost
- Indium Antimonide
- Very High Sensitivity
- Low Current Requirement
- Choice of Mounting Configuration

Models

SH-400
SH-410
SH-420

SPECIFICATIONS	UNITS	SH-400	SH-410	SH-420
Input resistance, R_{in}	ohms	240 to 550	240 to 550	240 to 550
Output resistance, R_{out}	ohms	240 to 550	240 to 550	240 to 550
Magnetic sensitivity, V_H (1)	mV/kG	292 to 1,120	290 to 1,760	100 to 330
Max. resistive residual voltage, V_M @ B=0 (1)	±mV	20	20	16
Max. control current @ 25°C, static air	mA	20	20	20
Nominal control current, I_{cn}	mA	5	5	5
Mean temperature coefficient of V_H (0°C to +40°C) (1)	%/ C	-1.8	- 1.8	-1.8
Mean temperature coefficient of resistance (0°C to +40°C) (2)	%/ C	-1.8	- 1.8	-1.8
Operating temperature range	°C	-40 to +110	-40 to +110	-40 to +110
Storage temperature range	°C	-40 to +125	-40 to +125	-40 to +125

Notes

(1) Nominal Control Current, I_{cn}=5 mA
(2) Control Current=0.1 mA

SYPRIS TEST & MEASUREMENT
6120 Hanging Moss Road • Orlando, Florida 32807 • **www.fwbell.com**
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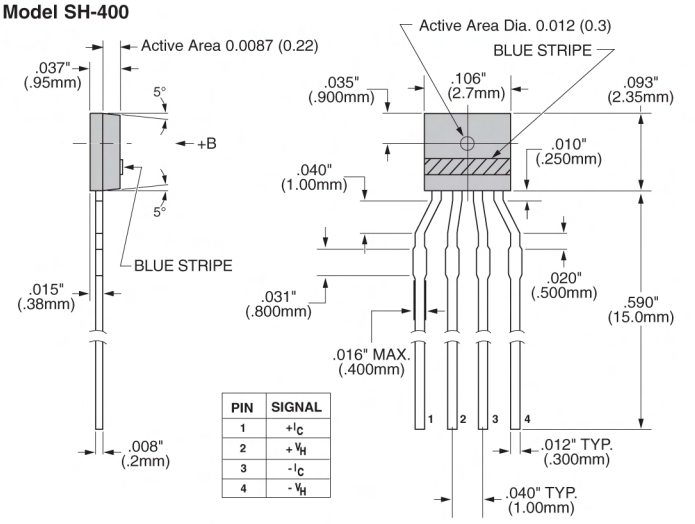
F.W. BELL®

Rev. date 02/2006

Mechanical **Dimensions**

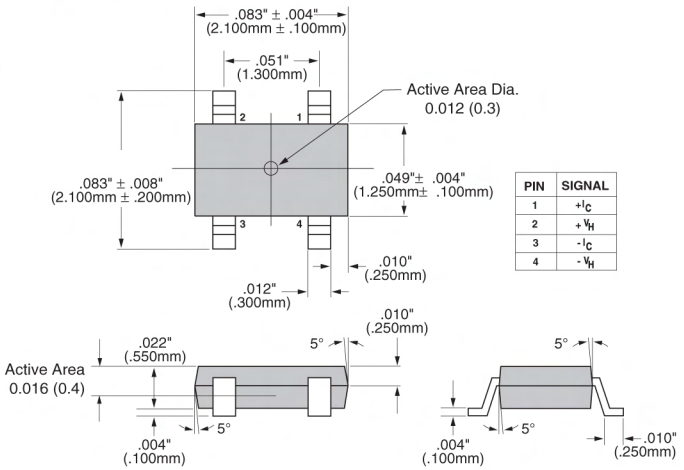
All dimensions are in inches (millimeters)

Model SH-400



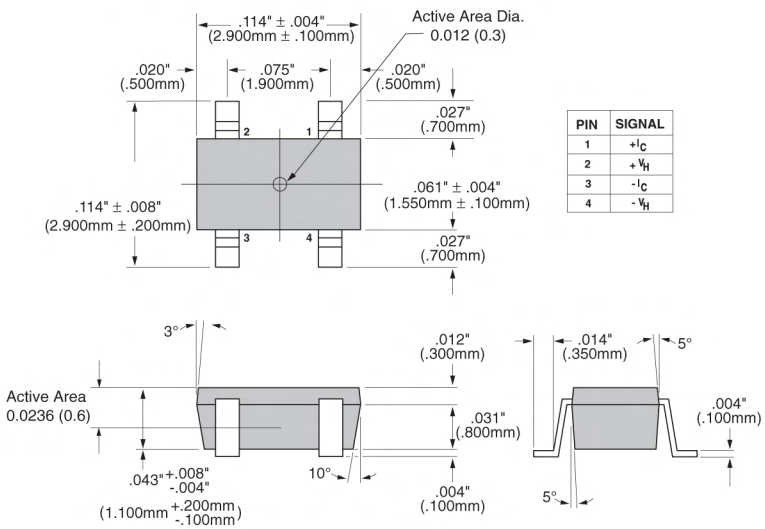
PIN	SIGNAL
1	$+I_C$
2	$+V_H$
3	$-I_C$
4	$-V_H$

Model SH-420



PIN	SIGNAL
1	$+I_C$
2	$+V_H$
3	$-I_C$
4	$-V_H$

Model SH-410



PIN	SIGNAL
1	$+I_C$
2	$+V_H$
3	$-I_C$
4	$-V_H$

Note: Due to continuous process improvement, all specifications are subject to change without notice.

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