

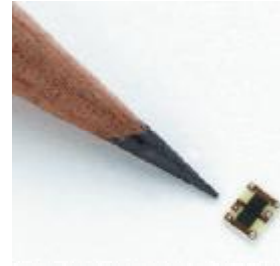
Thin Film HS-100 Series

Hall Sensors

Hall Sensors

Description

The F.W. Bell HS-100 is the world's thinnest thin film InAs Hall sensor measuring 0.012 inch (0.3 mm) thick maximum. Manufactured from Indium Arsenide, the HS-100 offers stable operation over a wide temperature range of -55°C to +185°C. The HS-100, packaged in a unique flip chip configuration, is available in bulk and tape and reel formats.



Electrical Specifications

a. Polarity: With field direction (B+) as shown and I_C entering the I_C (+) terminal, the positive Hall voltage will appear at the V_H (+) terminal.

b. Note: Unless otherwise specified, all specifications apply at nominal control current and at a temperature of 25°C. Heat sinking can enhance performance in several respects.

SPECIFICATIONS	UNITS	HS-100
Input resistance, R_{in}	ohms	30 to 160
Output resistance, R_{out}	ohms	60 to 360
Maximum continuous control current	mA	30
Magnetic sensitivity, $V_H @ I_C = 10 \text{ mA}$	mV/kG	8 min.
Misalignment voltage, $V_M @ I_C = 10 \text{ mA}$	±mV	6.0 max.
Mean temperature coefficient of magnetic sensitivity (-20°C to +80°C) ($I_C = 10 \text{ mA}$) (B=5 kG)	%/°C	-0.1 max.
Mean temperature coefficient of input resistance (-20°C to +80°C) ($I_C = 10 \text{ mA}$)	%/°C	+1 max.
Temperature dependence of resistive residual voltage (-20°C to +80°C) ($I_C = 10 \text{ mA}$) (B=0)	±µV/°C	10 max.
Operating temperature range	°C	-55 to +185
Storage temperature range	°C	-55 to +190



SYPRIS
TEST & MEASUREMENT

6120 Hanging Moss Road • Orlando, Florida 32807 • www.fwbell.com
Phone (407) 678-6900 • Fax (407) 677-5765 • Toll Free (800) 778-6117

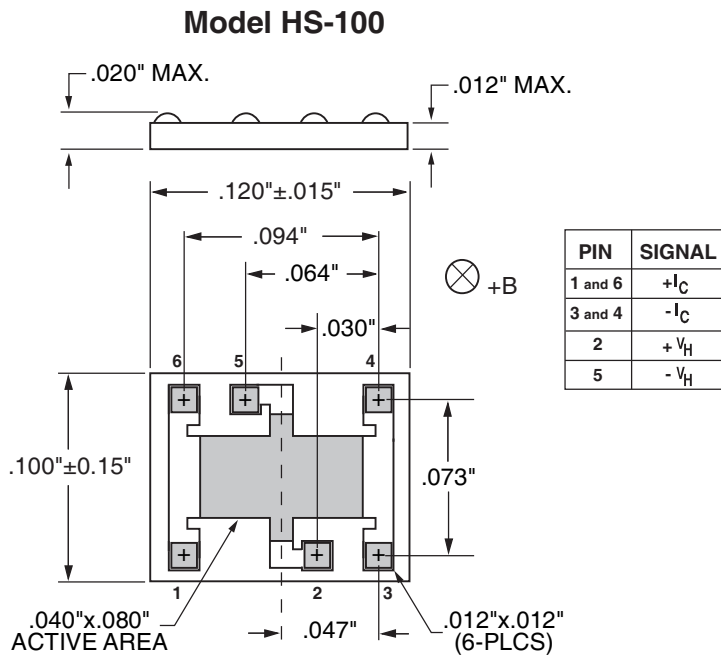


Rev. date 04/2003

Mechanical Dimensions

All dimensions are in inches

Model HS-100



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

Hall Sensors



SYPRIS
TEST & MEASUREMENT

6120 Hanging Moss Road • Orlando, Florida 32807 • www.fwbell.com
Phone (407) 678-6900 • Fax (407) 677-5765 • Toll Free (800) 778-6117



Rev. date 04/2003