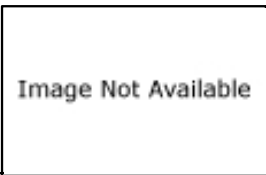




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SS41D



SS40 Series Bipolar Hall-Effect Digital Position Sensor; radial lead IC package

Features

- Small size
- Reverse power polarity protection
- Current sinking output
- Sensitive magnetic characteristics
- Operating speed from 0 kHz to over 100 kHz

Potential Applications

- Speed and RPM sensor
- Brushless DC motor commutation
- Motor and fan control
- Magnetic encoding
- Tachometer, counter pickup
- Disc speed, tape rotation sensing
- Flow -rate sensing

Description

SS41-Series Bipolar Hall Effect sensors respond to alternating North and South poles. A built-in regulator provides stable operation over 4.5 Vdc to 24 Vdc supply voltage range, and internal circuitry prevents sensor damage in case the supply voltage polarity is accidentally reversed. The SS41 Series Bipolar Hall-effect sensors are small, versatile digital Hall-effect devices that are operated by the magnetic field from a permanent magnet or an electromagnet. The open-collector sinking output voltage is easily interfaced with a wide variety of electronic circuits.

**NOTE:** These digital Hall sensors have an operating temperature range of -40 °C to 125 °C [-40 °F to 257 °F], appropriate for commercial, consumer, and industrial environments.

| Product Specifications             |  |
|------------------------------------|--|
| Product Type                       | Hall-Effect Digital Position Sensor IC |
| Package Style                      | Radial Lead IC                         |
| Supply Voltage                     | 4.5 Vdc to 24.0 Vdc                    |
| Output Type                        | Sink                                   |
| Termination Type                   | PC Board                               |
| Magnetic Actuation Type            | Bipolar                                |
| Operating Temperature Range        | -40 °C to 150 °C [-40 °F to 302 °F]    |
| Storage Temperature                | -40 °C to 150 °C [-640 °F to 302 °F]   |
| Output Voltage                     | 0.4 Vdc max.                           |
| Switching Time Rise (10 % to 90 %) | 1.5 µs max.                            |
| Switching Time Fall (90 % to 10 %) | 1.0 µs max.                            |
| Availability                       | Global                                 |
| Supply Current (max. @ 25 °C)      | 15 mA                                  |
| Output Current (max.)              | 20 mA                                  |
| Operate Point @ 25 °C              | 34.0 mT [340 G] max.                   |
| Release Point @ 25 °C              | -34.0 mT [-340 G] min.                 |
| Leakage Current max.               | 10 µA                                  |
| Differential                       | 4.0 mT [40 G] min.                     |
| Series Name                        | SS40                                   |