

NEW PRODUCT BRIEF

Riedon™ SSD Series Digital Current Sensors by Bourns



INTRODUCTION

The Riedon™ SSD Series Digital Current Sensors by Bourns gives designers a highly integrated, high precision, compact and cost-effective current measurement solution. This advanced System-in-Package (SIP) device delivers calibrated and temperature compensated digital output that is ideal for current sensing in a wide variety of battery related applications. With considerably lower insertion resistance than passive current sensors, this series also offers greater accuracy and operational stability than typical Hall Effect sensors.

FEATURES

- 16-bit +150 °C Microcontroller
- 24-bit isolated current sensor with CANbus or RS-485/MODBUS interface
- ECC Flash Memory with Autocorrect Single Bit Errors
- Internal & External CRC Data Error Detection
- Advanced Non-Linear Temperature Compensation
- Optional Internal 120 Ohm Termination Resistor

TYPICAL APPLICATIONS

- Battery systems
- Renewable energy
- Motor drives
- EV charging stations

BENEFITS

- Compact Package; Big Performance
- High Accuracy Solution with Digital Output
- Enhanced Operational Stability
- 100 A, 250 A and 500 A Nominal Current
- 1500 VDC Galvanic Isolation
- ±0.1 % Tolerance
- Available with CANbus or RS-485 Output

HOW TO ORDER

Model SSD - 500A - x - T
 Nominal Current 1000A = 1000 A
 100A = 100 A
 250A = 250 A
 500A = 500 A
 1000A = 1000 A
 Interface R
 C = CANbus
 R = RS-485, MODBUS
 Option Blank
 Blank = Standard
 -T = Internal 120 Ohm Termination Resistor

SSD SERIES WITH CANbus INTERFACE

Series	Photo	Package Size	Technology	Nominal Current (A)	Current Resistance (Microohms)	Initial Accuracy	Bandwidth	ADC Resolution	Operating Temperature	Storage Temperature	Speed	Supply Voltage
SSD-100A-C		110 mm	CANbus	± 100	300	± 0.1 %	5 kHz	24 bits	-40 °C to +115 °C	-55 °C to +125 °C	Up to 1100 RPS	5.0V, 55 mA Typical
SSD-250A-C		110 mm	CANbus	± 250	120	± 0.1 %	5 kHz	24 bits	-40 °C to +115 °C	-55 °C to +125 °C	Up to 1100 RPS	5.0V, 55 mA Typical
SSD-500A-C		110 mm	CANbus	± 500	60	± 0.1 %	5 kHz	24 bits	-40 °C to +115 °C	-55 °C to +125 °C	Up to 1100 RPS	24V, 15 mA Typical

SSD SERIES WITH RS-485/MODBUS INTERFACE

Series	Photo	Package Size	Technology	Nominal Current (A)	Current Resistance (Microohms)	Initial Accuracy	Bandwidth	ADC Resolution	Operating Temperature	Storage Temperature	Speed	Supply Voltage
SSD-100A-R		110 mm	RS-485	± 100	300	± 0.1 % + 5 mA	5 kHz	24 bits	-40 °C to +115 °C	-55 °C to +125 °C	Up to 1100 RPS	5.0V, 55 mA Typical
SSD-250A-R		110 mm	RS-485	± 250	120	± 0.1 % + 5 mA	5 kHz	24 bits	-40 °C to +115 °C	-55 °C to +125 °C	Up to 1100 RPS	5.0V, 55 mA Typical
SSD-500A-R		110 mm	RS-485	± 500	60	± 0.1 % + 5 mA	5 kHz	24 bits	-40 °C to +115 °C	-55 °C to +125 °C	Up to 1100 RPS	24V, 15 mA Typical

For full characteristics, see data sheets

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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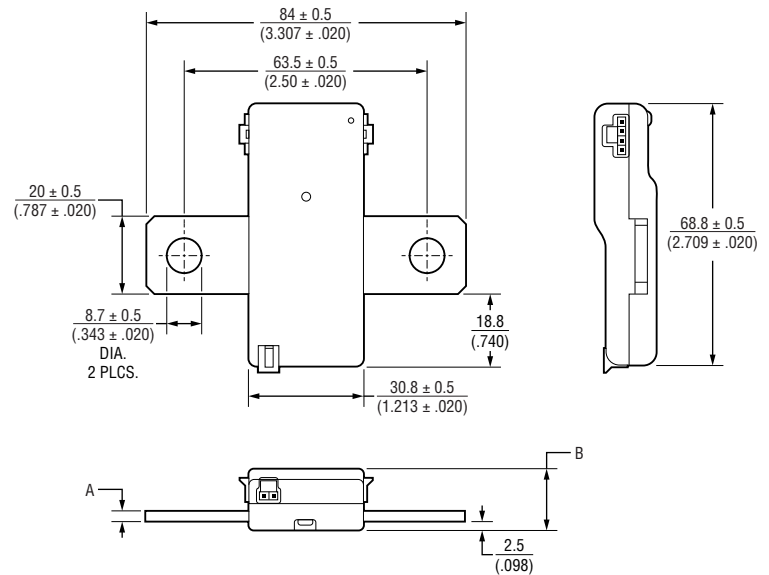
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PRODUCT DIMENSIONS

Dimension	SSD-100A SSD-250A	SSD-500A
A	$\frac{3.0 \pm 0.5}{(.118 \pm .020)}$	$\frac{4.0 \pm 0.5}{(.157 \pm .020)}$
B	$\frac{16.4 \pm 0.5}{(.646 \pm .020)}$	$\frac{17.4 \pm 0.5}{(.685 \pm .020)}$

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$



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