

Bourns® SSA-2 Series Analog Current Sensors

NEW PRODUCT BRIEF



INTRODUCTION

The Bourns® SSA-2 Series Analog Current Sensor offers a high accuracy current sensing solution with greater operational stability compared to typical Hall Effect sensors. Bourns developed this series to give designers a high quality device that delivers immunity to stray magnetic fields. This capability is important as stray magnetic fields can interfere with the operation of sensors in sensitive electronic devices, which could potentially cause inaccurate readings, device failure or even safety hazards. In addition, the SSA-2 Series Analog Current Sensor meets unipolar power supply requirements, making these devices superior measurement choices for a wide variety of battery-related current sensing applications.

FEATURES

- 100 A to 1000 A nominal current
- AC or DC circuits
- 1500 VDC Reinforced isolation
- ±0.2 % Tolerance
- Amplified differential output, ±2.5 V peak
- Assembled using AEC-Q compliant components (optional)
- RoHS compliant*

BENEFITS

- High Quality, High Accuracy
- Effective Immunity to Stray Magnetic Fields
- Meets Unipolar Power Supply Requirements

TYPICAL APPLICATIONS

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

HOW TO ORDER

Model **SSA-2 - 100A - AE**

Nominal Current _____

100A = 100 A
250A = 250 A
500A = 500 A
1000A = 1000 A

AEC-Q Compliant Component Option _____

Blank = Industrial Grade
AE = Assembled using AEC-Q compliant components

ELECTRICAL CHARACTERISTICS

Series	Nominal Current (A)	Overcurrent (1 s, clipped)	Power Supply (3.0 to 5.5 VDC) with high impedance load	TCR (25 °C - 95 °C)	Bandwidth (electronics)	Signal to Noise Ratio (SNR)	Operating Temperature
SSA-2-100A	100	600 A	@ 3.0 V, 20 mA typical	±30 PPM/°C	300 kHz	V _{IN} = 100 mVPP, f _{IN} = 1 kHz, BW = 10 kHz 80 dB min., 84 dB typical	-40 °C to +115 °C ambient
SSA-2-250A	250	1500 A					
SSA-2-500A	500	3000 A					
SSA-2-1000A	1000	6000 A	@ 5.5 V, 40 mA typical				

For full characteristics, see data sheet

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

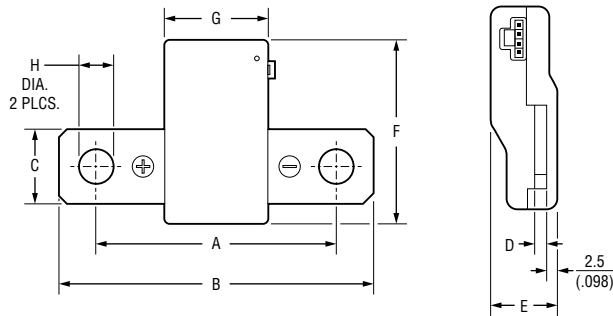
Bourns® SSA-2 Series Analog Current Sensors

NEW PRODUCT BRIEF

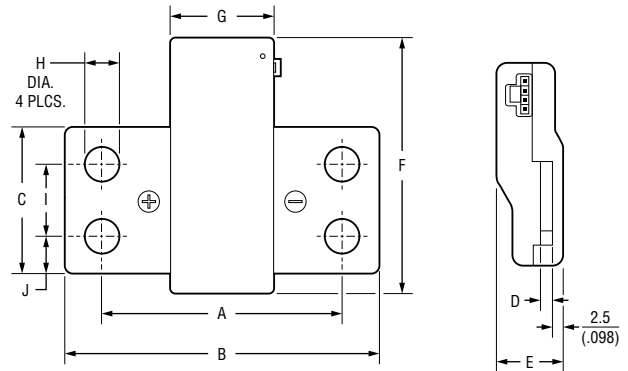


PRODUCT DIMENSIONS

SSA-2-100A to SSA-2-500A



SSA-2-1000A



Product Dimensions

Model	SSA-2-100A	SSA-2-250A	SSA-2-500A	SSA-2-1000A
A	$\frac{63.5 \pm 0.5}{(2.50 \pm .020)}$			
B	$\frac{84 \pm 0.5}{(3.307 \pm .020)}$			
C	$\frac{20 \pm 0.5}{(.787 \pm .020)}$			$\frac{40 \pm 0.5}{(1.575 \pm .020)}$
D	$\frac{3 \pm 0.5}{(.118 \pm .020)}$		$\frac{4 \pm 0.5}{(.157 \pm .020)}$	
E	$\frac{16.4 \pm 0.5}{(.646 \pm .020)}$		$\frac{17.4 \pm 0.5}{(.685 \pm .020)}$	
F	$\frac{48.7 \pm 0.5}{(1.917 \pm .020)}$			$\frac{68.7 \pm 0.5}{(2.705 \pm .020)}$

Model	SSA-2-100A	SSA-2-250A	SSA-2-500A	SSA-2-1000A
G	$\frac{28 \pm 0.5}{(1.102 \pm .020)}$			
H	$\frac{8.7 \pm 0.5}{(.343 \pm .020)}$			
I	—	—	—	$\frac{19 \pm 0.5}{(.748 \pm .020)}$
J	—	—	—	$\frac{10.5 \pm 0.5}{(.413 \pm .020)}$
Mass (g)	67	69	84	145

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