

SSR300A Solid State Relay

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SR300A Solid State Relay



Overview

The Cosworth SSR300A is a ruggedized high power solid state relay designed to replace the master mechanical relay in performance electrical systems.

Solid state MOSFET technology enables the SSR300A to operate under extreme shock and vibration conditions well in excess of the capabilities of a mechanical relay. This reduces the likelihood of electrical system failure due to high-G impacts.

The unit has an inbuilt diode which clamps the alternator voltage to the battery, avoiding the 'load dump' situation for other electrical components on the vehicle. The external controlling switch also signals to the ECU to stop the engine.

The solid state relay is available in two versions: the SSR300A with a 16mm stud, and the SSR300A-SRT with a shorter 10mm stud.

Specifications

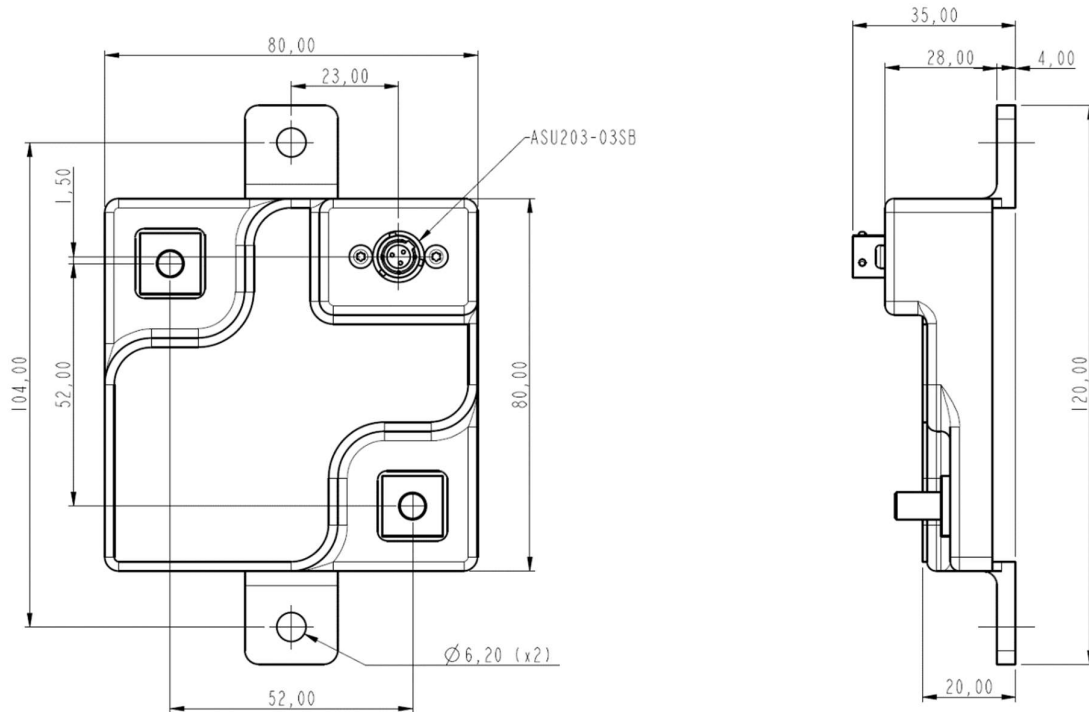
Electrical data	
Operating voltage	7V to 35V
Current rating	300A (Continuous) 1000A (≤ 5seconds)
Load dump protection	Diode

Mechanical data	
Size without connectors	80 x 80 x 28 mm
Weight	245 grams
Environmental	IP65
Operating temperature	-40°C to +80°C
Storage temperature	-40°C to +80°C
Size without connectors	80 x 80 x 28 mm
Weight	245 grams
Environmental	IP65

Ordering information

Part number	
Cosworth SSR300A	01I-610034
Cosworth SSR300A-SRT	01I-610034-SRT

Dimensions



Installation

The Cosworth SSR300A is designed to be hard mounted to any flat surface using 2 x M5 fixings. Use the above illustrations to help you mount the unit.

- Make sure that the unit is not subjected to excessive vibration. Whilst designed to withstand harsh shock and vibration levels, prolonged exposure is not recommended.
- Make sure that the unit is positioned so that it is not exposed to water.
- Make sure that the unit is cooled adequately to below its maximum case temperature. Some air flow over the unit is essential.
- Make sure that the master switch cables have adequate strain relief.
- Make sure that the Batt+ and Car+ connections use appropriate battery terminal connectors and are securely fastened without fouling any metal parts of the vehicle, and that the ring terminals have sufficient electrical insulation to protect against accidental contact. Max torque 2.5Nm (material is CuZn 39 Pb 3).
- If you cannot mount the unit on a cool surface, or it is subject to shock or vibration, you must use anti-vibration mounts.

Connector information

J1 – Battery

Connector	Mating Connector
M6 STUD	Ring / battery terminal
Maximum torque 2.5Nm	

Pin	Function	Signal Description
1	Batt+	Main +VE feed input from battery

J2 – Car

Connector	Mating Connector
M6 STUD	Ring / battery terminal
Maximum torque 2.5Nm	

Pin	Function	Signal Description
1	Car+	Main +VE feed output to vehicle electrical systems

J3 – Control

Connector	Mating Connector
ASU103-03SB	ASU603-03PB

Pin	Function	Signal Description
1	Master Switch	Wire to master switch. Switch to GND to activate solid state relay
2	Unused	Not connected
3	Unused	Not connected



Recycling and Environmental Protection

Cosworth Electronics is committed to conducting its business in an environmentally responsible manner and strive for high environmental standards.

Manufacture: Cosworth products comply with the appropriate requirements of the Restriction of Hazardous Substance (RoHS)

Disposal: Electronic equipment should be disposed of in accordance with the regulations in force and in particular in accordance with the Waste in Electrical and Electronic Equipment directive (WEEE).

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