

COSWORTH

Solid State Relay

SSR300A

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Solid State Relay SSR300A

Overview

- Solid state relay for increase reliability
- 300A Continuous rating
- 1000A Peak <5 seconds

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 should also signal 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	7 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	-40oC to +80oC
Storage temperature	-40oC to +80oC

Ordering Information

Part Number	
Cosworth SSR300A	011-610034
Cosworth SSR300A-SRT	011-610034-SRT

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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

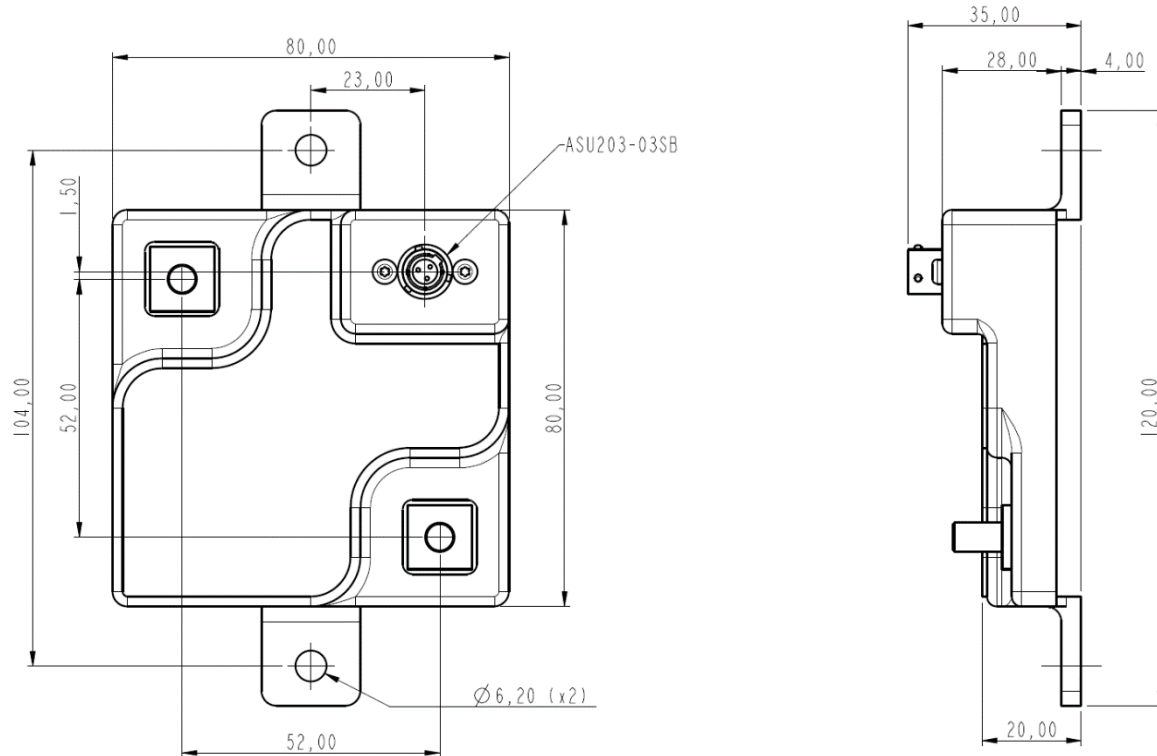
Connector		Mating Connector	
M6 STUD		Ring / battery terminal	
Maximum torque 2.5Nm			
Pin	Function	Signal Description	
1	Car+	Main +VE feed output to vehicle electrical systems	

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	

Solid State Relay SSR300A

Dimensions



Installation

The Cosworth SSR300A is designed to be hard mounted to any flat surface using 2 x M5 fixings, use the above drawings to help with mounting the unit.

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

All dimensions shown in mm

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 on accordance with the regulations in force and in particular on accordance with the Waste in Electrical and Electronic Equipment directive. (WEEE).

Battery

This equipment contains a rechargeable battery (Manganese Silicon Lithium).

The equipment may be returned to Cosworth Electronics for a replacement battery. A charge will be made for this service.

To remove the battery for recycling:

- Remove the case(s).
- Remove printed circuit boards from the case.
- Remove the battery from the printed circuit board.
- Dispose of the battery in accordance with the regulations in force.

Removal of the battery will result in the warranty of the unit being void.



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