

DC Solid State Relay – 50V 80A



Replaced by the [3958](#), an SSR with similar characteristics.

The 3951 DC Solid State Relay can be used to switch loads of up to 80A at 50VDC using the digital output from a [1012 – PhidgetInterfaceKit 0/16/16](#). The Relay comes with an optional protective cover to protect people from touching the exposed high power wires, and a diode to protect your SSR from harmful transients. All wires connect to this relay by screw terminals. If you are switching a high power load or find the relay is getting hot, please consider a heat sink. Heat sinks [3955](#) and [3961](#) are designed for use with this relay.

Comes Packaged with



- A Protective Relay Cover
- A Heat Transfer Pad
- A Diode

Warnings

1. When choosing a SSR, check the actual load current and the working ambient temperature. Refer to the characteristic curve in the [Data Sheet](#) and select the proper heat sink if required.
2. Use the heat transfer pad between the SSR and the heat sink. Failure to do so can cause overheating and could damage the relay.
3. Make sure that the SSR terminal screws are tight. If the screws are not tight, the SSR will get damaged by heat generated when the power is ON. Check the [Data Sheet](#) for recommended tightened torque.
4. When an SSR fails, it most often fails permanently closed – leaving your load powered, and possibly creating a fire or safety hazard.
5. You can use a [fuse](#) to protect your circuit from wiring mistakes and accidental short-circuits.
6. Make sure that you use the relay within the product specifications.



Product Specifications

Electrical Properties

Relay Output Type	MOSFET
Isolation Method	Photoelectric
Dielectric Strength	2.5 kV AC
Control Voltage Min	4 V DC
Control Voltage Max	32 V DC
Load Voltage Max (DC)	50 V DC
Load Current Min	20 mA
Load Current Max (DC)	80 A
Load Surge Current	200 A
Turn-on Time Max	1 ms
Turn-off Time Max	0.5 ms

Physical Properties

Length	58 mm
Width	45 mm
Height	25 mm
Operating Temperature Min	-30 B°C
Operating Temperature Max	80 B°C

Other Properties

Manufacturer Part Number KS33/D-50D80-L

Have a look at the [Data Sheet](#) for a complete set of specifications.