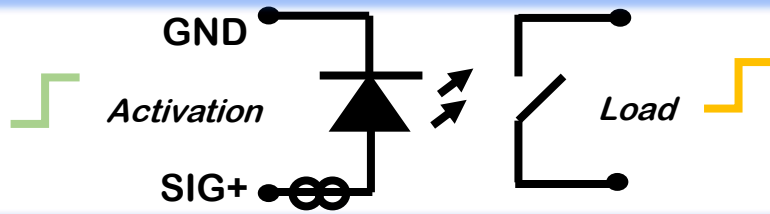


DC Solid State Relay

DC-SSR

90V-3A



DC Loads
Switches even at 0V
Bidirectional

$T_{on} < 50 \text{ ms}$
 $T_{off} < 50 \text{ ms}$

Stripped Wire Connection



Jumper Wire connection.



3.3V to 12V level
(no limiting resistor required; Directly drive from Raspberry, Arduino, Micro-controller)

Current Draw: 10-15 mA

Optical Isolation



Fused for safety

Ring Terminal Connection

Stripped Wire Connection



Approx. Current Measurement.
 $V_{meas} = \text{Current} * (\text{Fuse resistance})$

Ring Terminal Hardware:

Nut, Bolt, Washer:
M3 or M4 (metric)
6-32 or 10-24 (Imperial)
Crimp Ring: Example :
McMaster 8429T53

Stripped Wire Connection : up to 5A
Ring Terminal Connection : > 5A

Operational Specs

Maximum Load Voltage : 90 V

Maximum Load Current : 3 A

Maximum Turn-on Time : 50 ms

Maximum Turn-off Time : 50 ms

Fuse : 3A

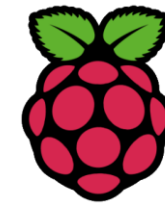
Maximum Input Signal Voltage : 12 V

Minimum Input Signal Voltage : 3 V

Maximum Current Drawn on Input : 15 mA

Great DIY Tool for

Arduino & Raspberry enthusiasts



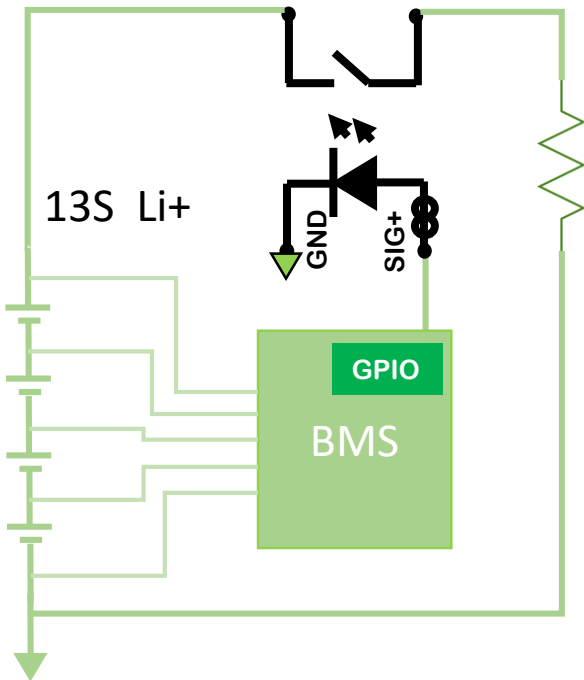
RaspberryPi

Product to be used for DIY experimental purposes only. Must not be used for mission critical applications.

Product Questions & OEM Opportunities:

info@sciencecadets.com

Application Example :
Switch for Battery Management Systems

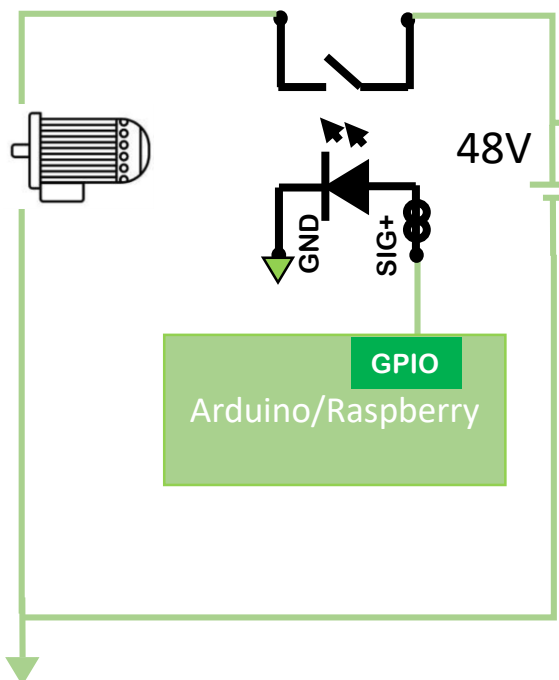


High-side switching in a BMS is a difficult problem to solve – requiring specialty chips and charge-pumps.

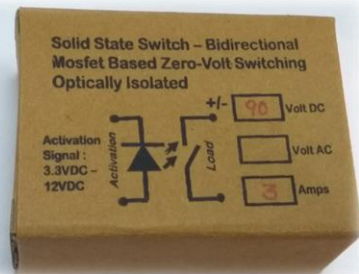
This is a dream device if you want to design your own BMS – this SSR completely disengages the power path with a signal from the micro-processor in the BMS.

Minimal Power Loss because it is not a SCR or IGBT device – it is made from Mosfets.

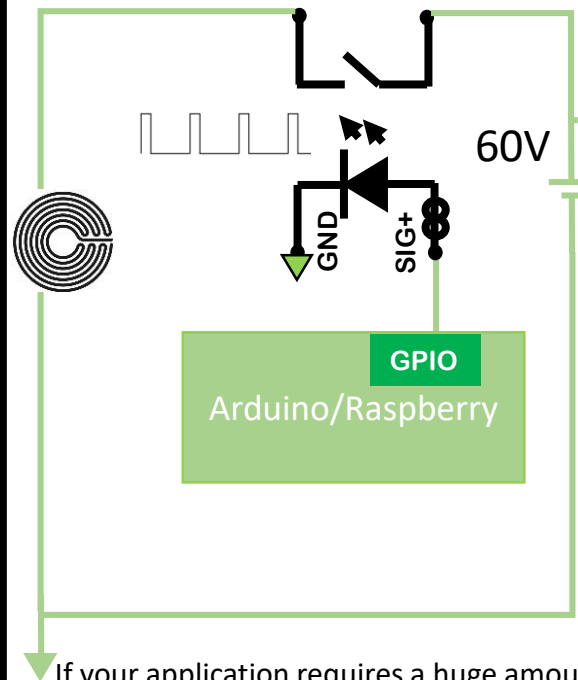
Application Example :
Remote Switch for DC Motors



Your Motor line is completely isolated from the “logic line”. You don’t have to worry about electrical noise from motor disturbing your sensitive controller electronics.



Application Example:
PID / PWM Control of Heater



If your application requires a huge amount of on/off cycling – such as PID control with PWM, then mechanical relays will burn out fast. This type of SSR is a good solution.



Better Features than Mechanical Relays :

- Long Life
- Virtually unlimited on/off cycles
- Quiet Operation
- Low Power Consumption
- No Electrical Noise
- Easy Plug in to Control Systems
- Orientation Insensitive

Board Dimensions

3” x 2” ; Height < 1.5”

Mounting Hole

Pitch: 1.75” x 2.75”
Diameter : 5/32”

DC-SSR 90V-3A

