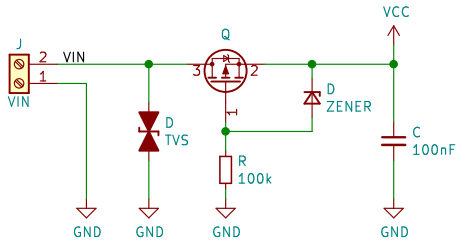
REVERSE VOLTAGE PROTECTION CIRCUIT



INFORMATIONS

1- TVS Diode have to use for plug-in sockets and terminals because of ESD protection. ESD Diode values related to your circuit.

2- PMOS use for reverse protection. PMOS Drain Current related to your circuit current

3- PMOS working with enough VGS voltage and this value is approximately -0.4 and less than

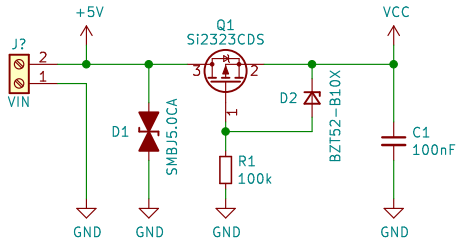
VGS = VG - VS => (0V - 12V) = -12V is OK

4- If input voltage connects in the opposite side, PMOS does not work because of VGS voltage.

VGS = VG - VS => (0 - (-12)) = +12V is not OK

5- ZENER Diode use to limit VGS voltage of PMOS. Such As, If you use 10V Zener, VGS voltage cannot exceed 10V and thus you protect your MOS. If you measure the voltage on Zener, you can see the Zener Voltage

5V REVERSE PROTECTION CIRCUIT



Reverse Voltage Protection Circuit		
Sheet: / File: RVP.sch		
Title: SONER BOZTAS		
Size: A4	Date: 2021-12-16	**Rev:**
KiCad E.D.A. kicad (5.1.6)-1		Id: 1/1