

SPV1040 20160316

Works much better with 2v 200mA solar cell!

Keeping things tighter on the board and moving the tvs diode closer made the difference. Changes made in schema as well.

Made circuit with 0.05R, never reached above 35mA so didn't try lower resistance.

The resistance for Rs should be $U=R*I \Rightarrow 5.6=R*0.1 \Rightarrow R=5.6/0.1=56$

Tested with resistive load in series:

1. 100R voltage after load 2.66V 25mA
2. 56R voltage after load 1.91V 35mA

Tested with max1555 and gave load at 16mA, Vin was measured at 3.96.

For next circuit (PCB):

Lower Vout to 5V in next circuit, R1 should be in the region of 1M R

$$1000/300 = V_{out}/1.25 - 1$$

$$V_{out} = 1.25(1000/300 + 1)$$

So R1=1M, R2=330 should be better.

Rs should be possible to have either 0.01R and 0.05R depending on test.