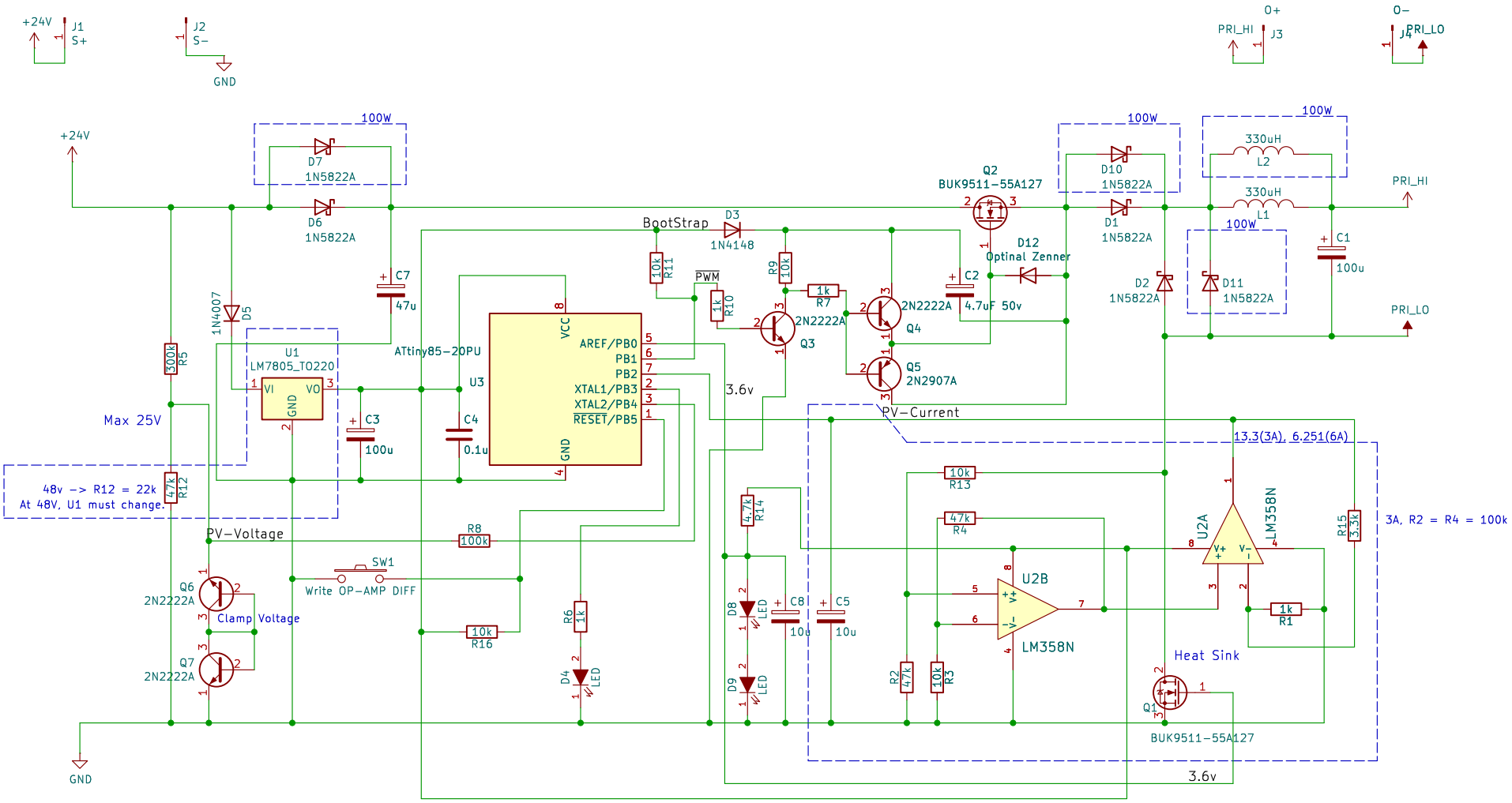

Q1 = BUK9511−55A127 −> 3.6{Aref}/(11*10−3{rds}*3{current})−>54.54/10{U2B}/8=1.36−1
R15 = 10k{R1}*0.36 = 3.6k(3.3k)
R2 = R4 = 100k / 2 = 50k(47k)

Q1 = IRLZ44NPBF −> 3.6{Aref}/(35*10−3{rds}*3{current})=17.14/3.3{U2B}/8=1.298−1=0.298
R2=R4=33k(3A)/2=15k, R15 = 10k{R1, 3A} * 0.298 = 2.98k(2.7k or 2.2k)

Q1 rds <= 55milli Ohm. If bigger, R2/R3 and R4/R13 must change.
D12, C8 − optional

Q6, Q7 − vEBO as low as 5V. It's clamp voltage for protection.

Sheet: /
File: ATTiny85−mppt.kicad_sch

Title: Simple MPPT with ATTiny85

Size: A4	Date: 2025−11−25	**Rev: 1.94**
KiCad E.D.A. 9.0.6		Id: 1/1