```
C1 100pF
```

C10 1000pF

C11 1000pF

C12 0.1uF

C13 0.1uF

C14 0.1uF

C15 0.1uF

C15 0.1u1

C16 470pF

C17 1000pF

C2 1000pF

C3 0.1uF

C4 0.1uF

C5 100pF

C6 1000uF

C7 1000uF

C8 0.1uF

C9 1000uF

D1 1N4007

D2 1N4148

D3 1N4148

D4 1N4148

D5 1N4148

J1 Pin_Header_Straight_1x02_Pitch2.54mm

J2 TerminalBlock_bornier-2_P5.08mm

J3 Pin_Header_Straight_1x02_Pitch2.54mm

J4 TerminalBlock_bornier-2_P5.08mm

J5 Pin_Header_Straight_1x02_Pitch2.54mm

J6 Pin_Header_Straight_1x02_Pitch2.54mm

J7 Pin_Header_Straight_1x03_Pitch2.54mm

Q1 BC547 TO-92

Q2 IRF840N TO-220

R1 120k

R10 100

R11 100

R12 240

R13 330k

R14 2k

R2 20k

R3 12k

R48k2

R5 22

R6 330k

R7 10k

R8 1k

R9 120k

RV1 5k Potentiometer_Trimmer_Bourns_3266Z

RV2 50k Potentiometer_Trimmer_Bourns_3266Z

RV3 22k Potentiometer_Trimmer_Bourns_3266Z

RV4 50k Potentiometer_Trimmer_Bourns_3266Z

U1 4046 DIP-16

U2 LM7812 TO220

U3 LM317 TO-220

U4 4011 DIP-14 U5 TC4420 or TC4429 DIP-8

heatsinks 2x Fischer SK 104 38 STS