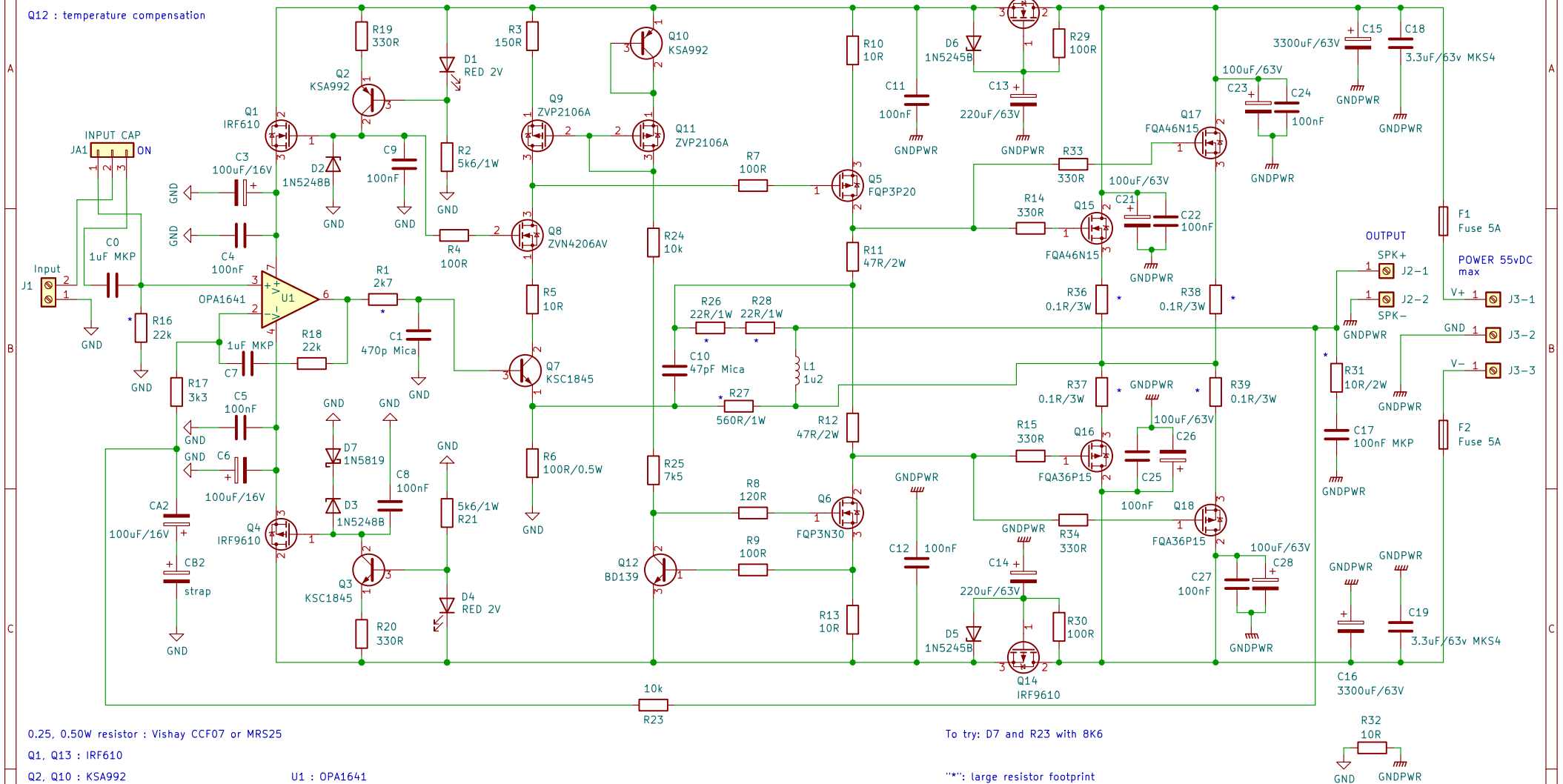


Q7, Q8 : cascode circuit
 Q9, Q11 : current mirror circuit
 R23, R17, C2 : DC servo
 Q12 : temperature compensation

L1 : 22 turns of a 1mm diameter copper insulated wire wound around a 8mm tube.
 This will give you a coil of 10x20mm (see picture on github repository).

Do not power on the board without opamp.



0.25, 0.50W resistor : Vishay CCF07 or MRS25

Q1, Q13 : IRF610

Q2, Q10 : KSA992

Q4, Q14 : IRF9610

Q3, Q7 : KSC1845

Q5 : FQP3P20

Q6 : FQP3N30

Q8 : ZVN4206AV or 2N7000 (not TA)

Q12 : BD139

Q9, Q11 : ZVP2106A or BS250P (Diodes Inc)

Q15, Q17 : FQA46N15

Q16, Q18 : FQA36P15

U1 : OPA1641

C0 : CDE 1uF 100v 930C1W1K-F

1W resistor : Vishay PR01

2W resistor : Vishay CCF02 or PR02

C15, C16 : Vishay 256 PMG-SI

C18, C19 : Wima MKS4C043303G

100nF : Wima MKS2

D1, D4 : LED RED 2V

D2, D3 : 1N5248B

D5, D6 : 1N5245

D7 : Onsemi 1N5819RLG (Vf 0.34 at 100mV)

C3, C5, C13, C14, C21, C23, C26, C28 : Panasonic FC

R26, R27, R28 : try to use non inductive 1W resistor (Vishay Dale or Ohmite).

R36, R37, R38, R39 : Noble RGC5 or KOA BPR58 0.1R 5W (white sugar)

C7 : use MKP capacitor (MKP1F041005100JYSD or MKP4D041005D00JSSD).

C17 : use MKP capacitor (MKP1F031004B00K100 or FKP3C031004C00JSSD).

CA2 & CB2 : use 100uF/16v BP for CA2 and strap CB2.

C1, C10 : use Mica CDE CD15 or Polystyrene capacitor.

J2 and J3: FASTON 250 PCB connector (TE Connectivity 63849-1)

To try: D7 and R23 with 8K6

***: large resistor footprint

Exicon laterals : R11 and R12 = 10R 2W

Q17 a QUAD405 audiophile approach

Modified by Stef for the Q17-P2 project
 by eng. Tiberiu Nicol

Sheet: /
 File: Q17-P2.kicad_sch

Title: Q17-P2 Amplifier

Size: A4 Date: 2021-12-23

KiCad E.D.A. kicad (6.0.0-rc1-343-g73b39e836d)

Rev: 1.1.3

Id: 1/1