Blackdog's oven controller

https://www.eevblog.com/forum/metrology/small-oven-controler-for-voltage-reference/?all;PHPSESSID=s4qqneiki7ie6jof3d2rn7obe4
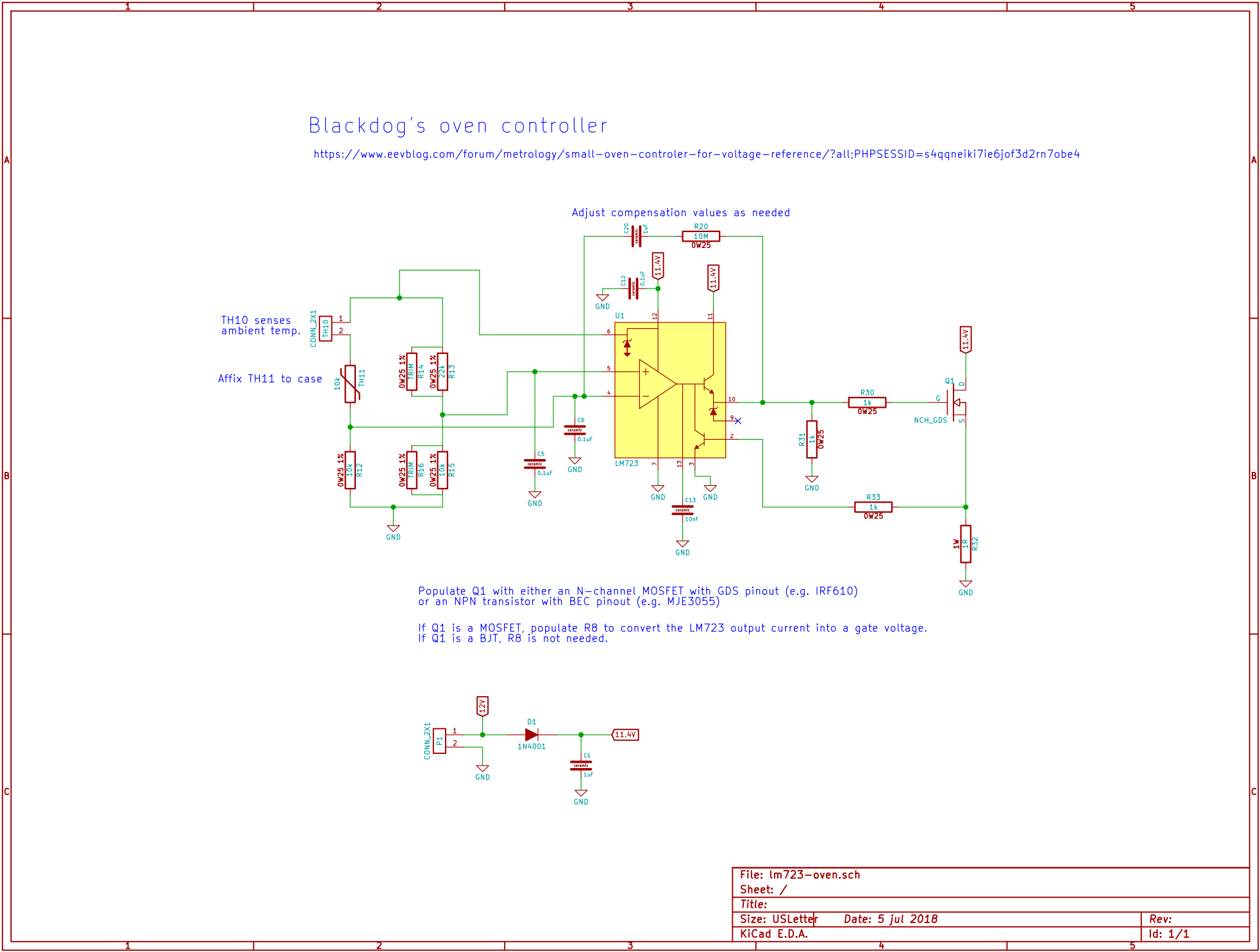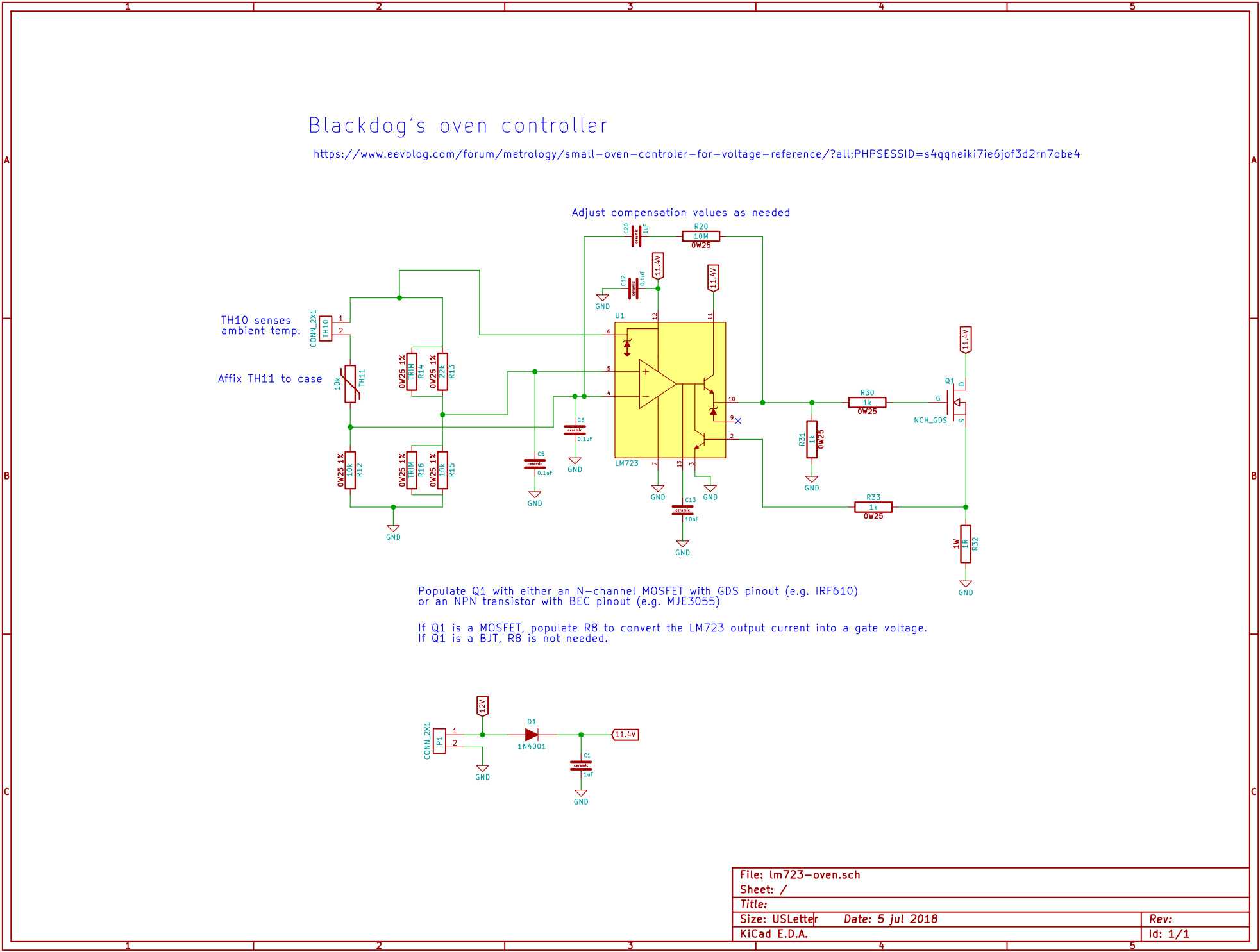
Adjust compensation values as needed

C20 1uF ceramic

R20
10M
0W25

C12 0.1uF ceramic

11.4V

GND

11.4V

11.4V

TH10 senses
ambient temp.

CONN_2X1
TH10
1
2

U1
6

5
+

4
−

12

11

10

9

2

LM723

7   13   3

GND   GND   GND

Q1
D

G

NCH_GDS

S

Affix TH11 to case

10k
TH11

0W25 1%
TRIM
R14

0W25 1%
R13
22k

R30
1k
0W25

R31
1k
0W25

GND

C6
ceramic
0.1uF

GND

C5
ceramic
0.1uF

GND

0W25 1%
R12
10k

0W25 1%
TRIM
R16

0W25 1%
R15
10k

GND

C13
ceramic
10nF

GND

R33
1k
0W25

1W
1R
R32

GND

Populate Q1 with either an N-channel MOSFET with GDS pinout (e.g. IRF610)
or an NPN transistor with BEC pinout (e.g. MJE3055)

If Q1 is a MOSFET, populate R8 to convert the LM723 output current into a gate voltage.
If Q1 is a BJT, R8 is not needed.

12V

CONN_2X1
P1
1
2

D1
1N4001

11.4V

GND

C1
ceramic
1uF

GND