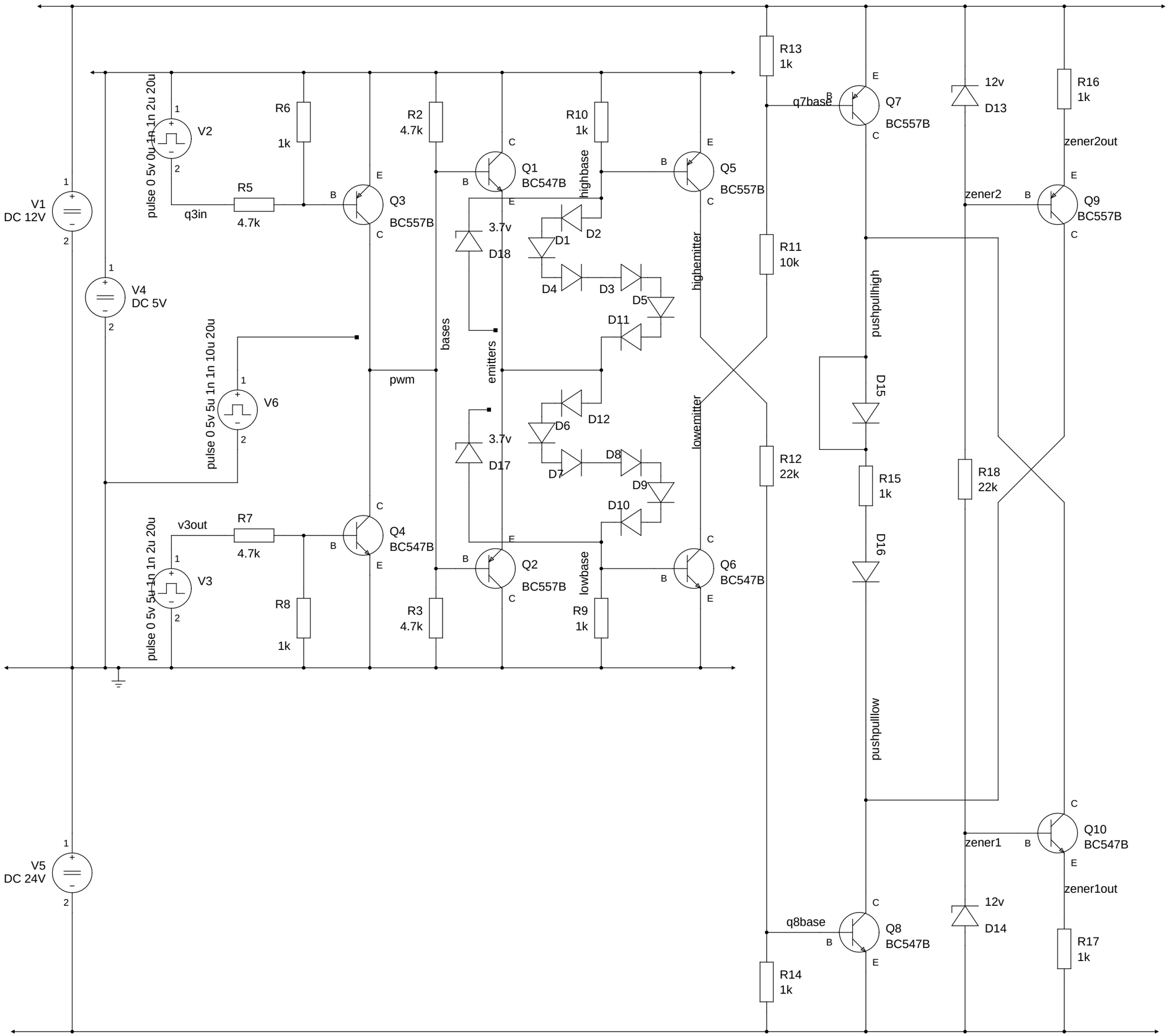
V1
DC 12V
V4
DC 5V
V5
DC 24V
V2
pulse 0 5v 0u 1n 1n 2u 20u
V6
pulse 0 5v 5u 1n 1n 10u 20u
V3
pulse 0 5v 5u 1n 1n 2u 20u
q3in
R5
4.7k
R6
1k
Q3
BC557B
pwm
v3out
R7
4.7k
R8
1k
Q4
BC547B
R2
4.7k
R3
4.7k
bases
Q1
BC547B
Q2
BC557B
emitters
3.7v
D18
3.7v
D17
highbase
lowbase
R10
1k
R9
1k
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
Q5
BC557B
Q6
BC547B
highemitter
lowemitter
R13
1k
R11
10k
R12
22k
q7base
Q7
BC557B
pushpullhigh
D15
R15
1k
D16
pushpulllow
q8base
Q8
BC547B
R14
1k
12v
D13
R18
22k
zener2
R16
1k
zener2out
Q9
BC557B
Q10
BC547B
zener1
12v
D14
zener1out
R17
1k