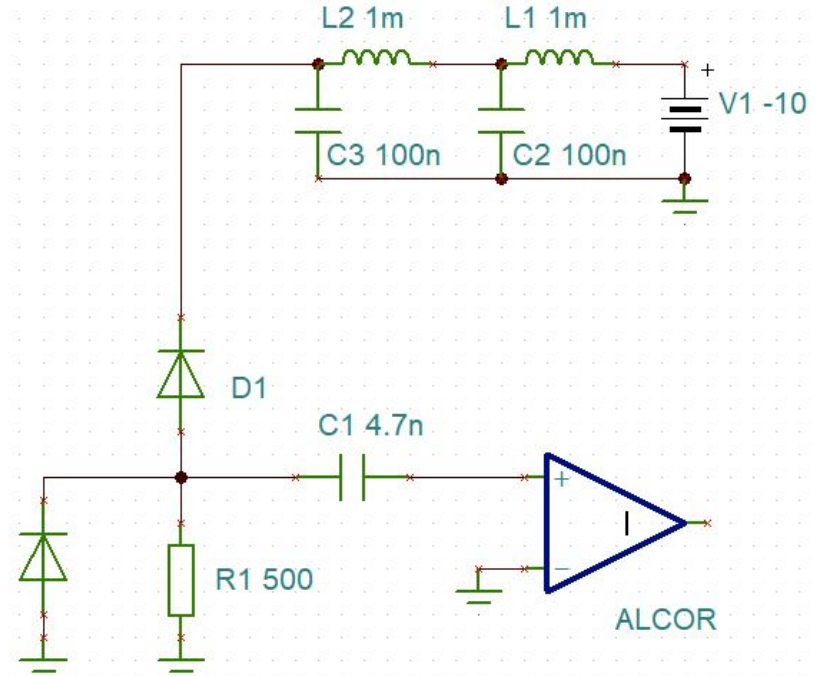


Direct current (Diode)

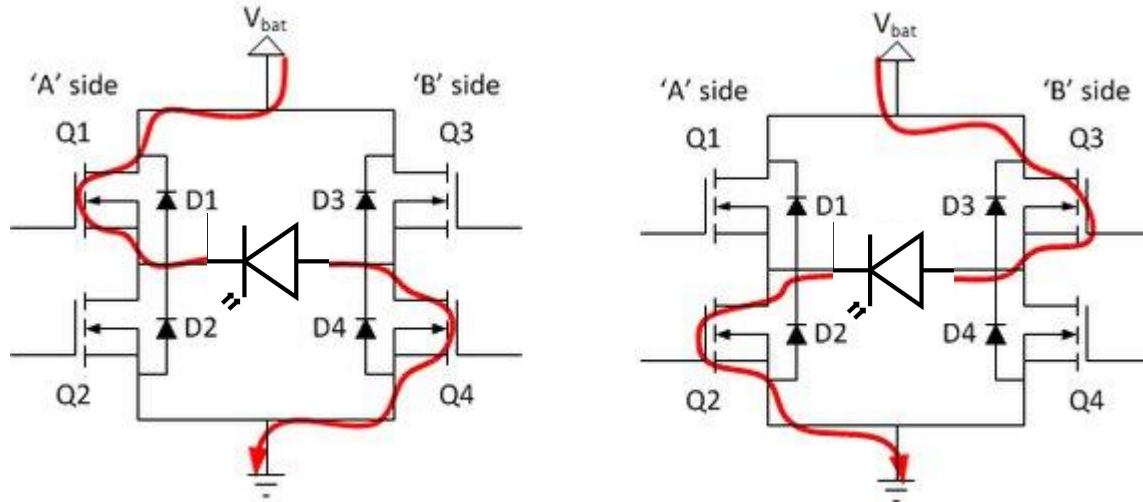
How to switch between “SiPM” mode
and “Annealing” mode?

How to handle an entire PDU annealing
at 10 V **25 A**?



How to switch between “SiPM” mode and “Annealing” mode?

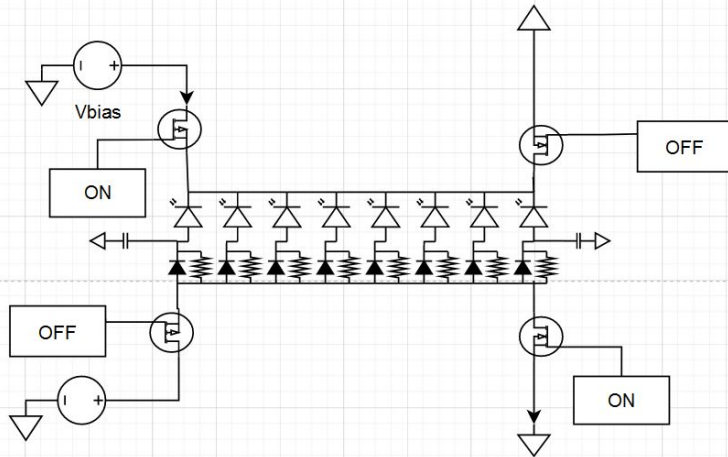
H-bridge circuit: current can flow in both direction depending on the active MOSFET



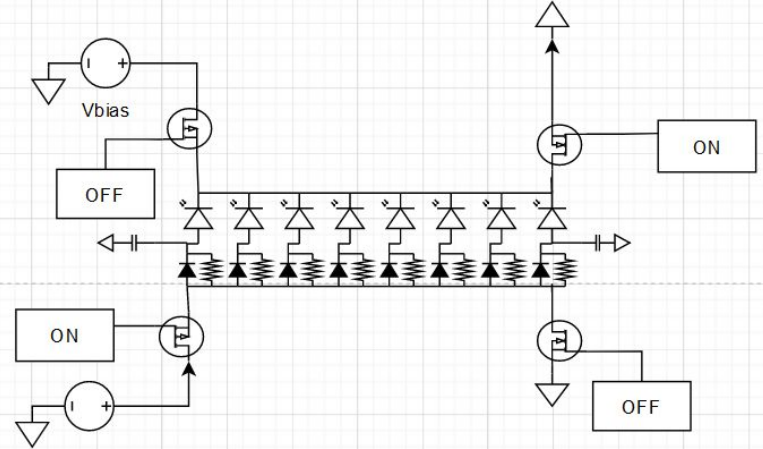
How to switch between “SiPM” mode and “Annealing” mode?

H-bridge circuit: current can flow in both direction depending on the active MOSFET: 2 PMOS and 2 NMOS to do the job per 8 SiPMs

SiPM MODE



Annealing MODE



How to handle an entire PDU annealing at 10 V 25 A?

Putting several groups of 8 SiPM in series we can increase the voltage thus reducing the delivered current. By putting in series 4 groups of 8 SiPMs we will need 40 V **8 A** to do the annealing of one PDU. HOW?

SiPM MODE

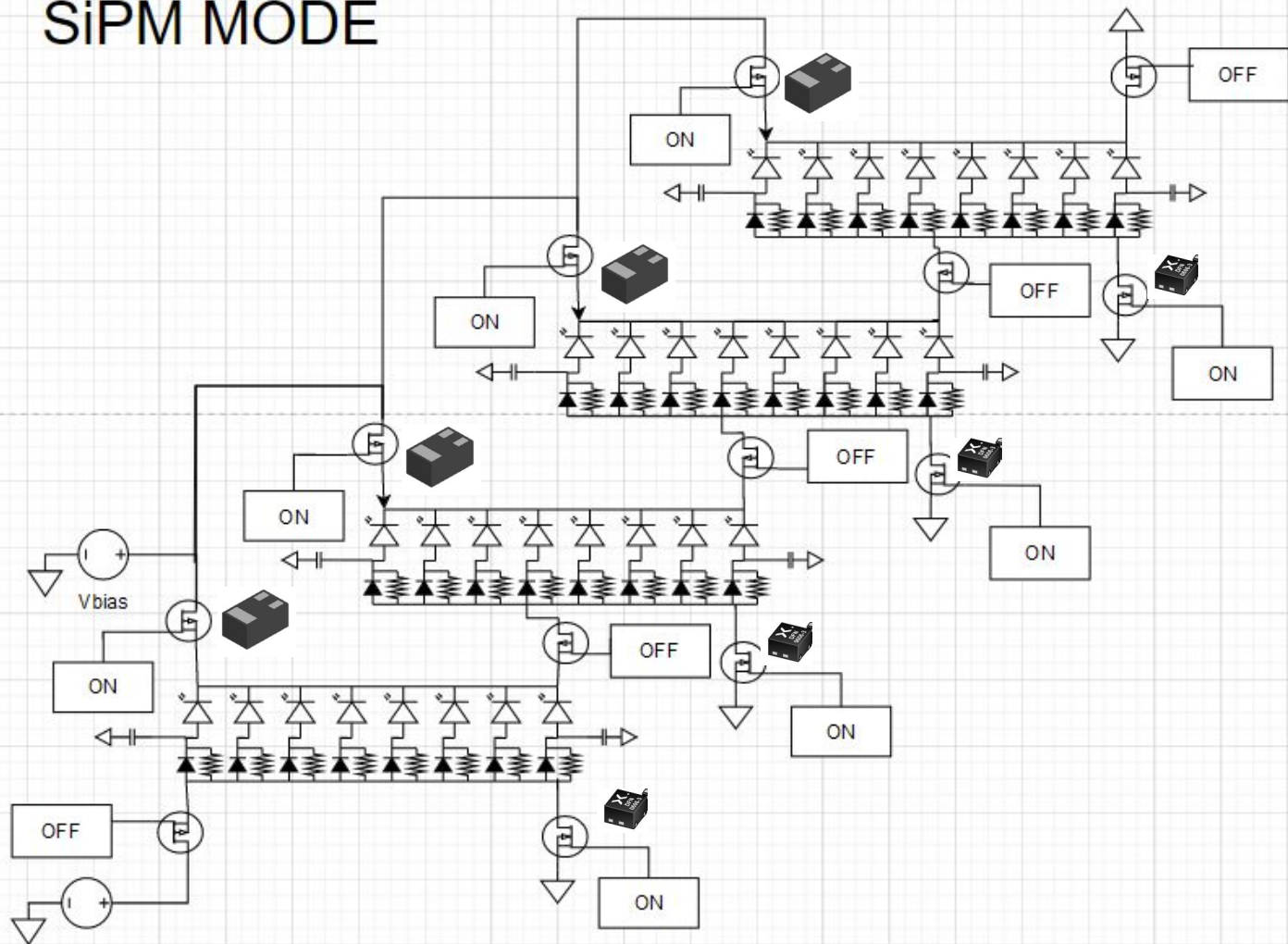
[DMP68D1LFB](#)

PMOS 65 V
200 mA
1 x 0.6 mm



[NX5008NBKH](#)

NMOS 50 V
350 mA
0.6 x 0.6 mm



Annealing MODE

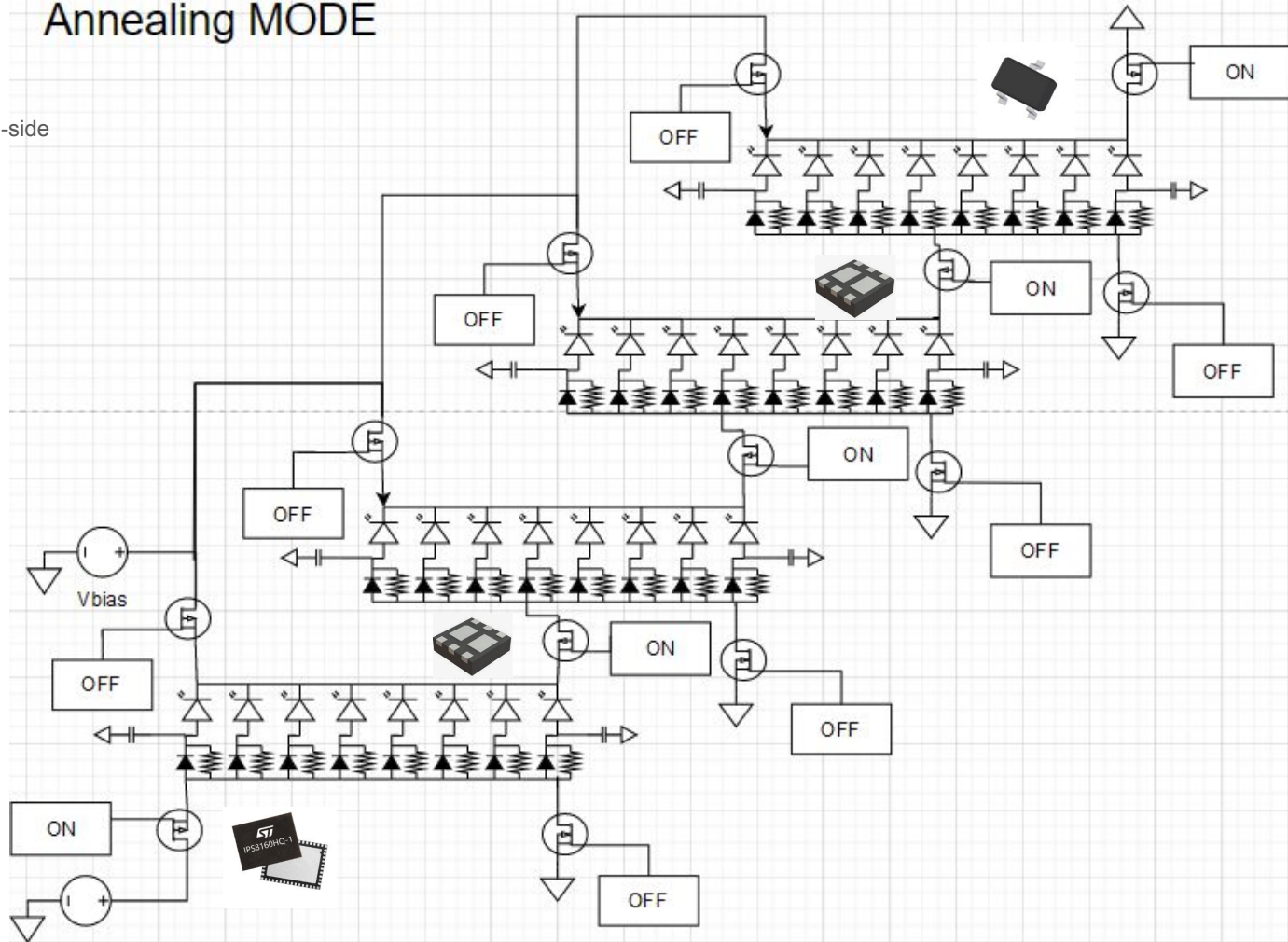
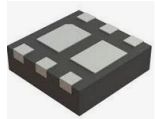
[IPS8160HQ-1](#)

Octal channel high-side driver
1 A per channel
1 chip per PDU
8 x 6 mm



[UT6JE5](#)

-100V Pch+Pch
Power MOSFET
1 A
2 x 2 mm



[DMN13H750S](#)

130V N-CHANNEL
1 A
2.5 x 3 mm



High level simulation

