

Figure 15: EPC9167 main schematic

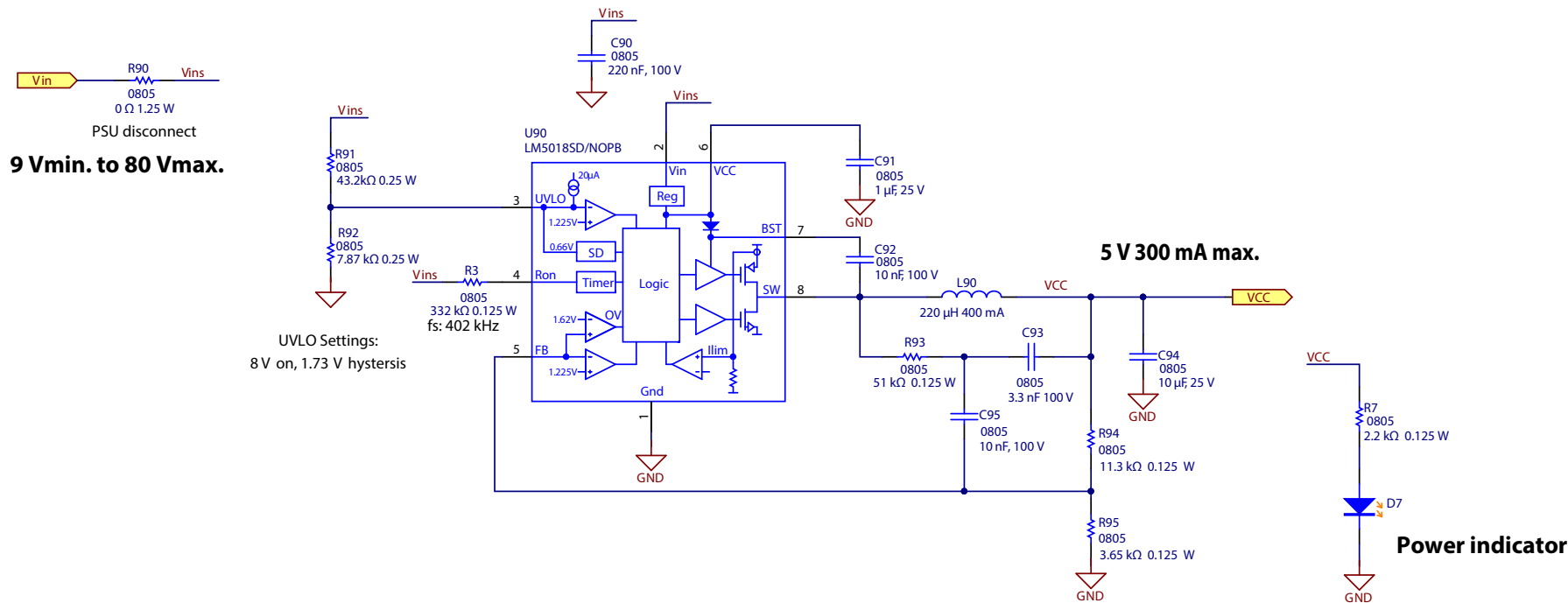


Figure 16: 80 V to 5 V V housekeeping power supply

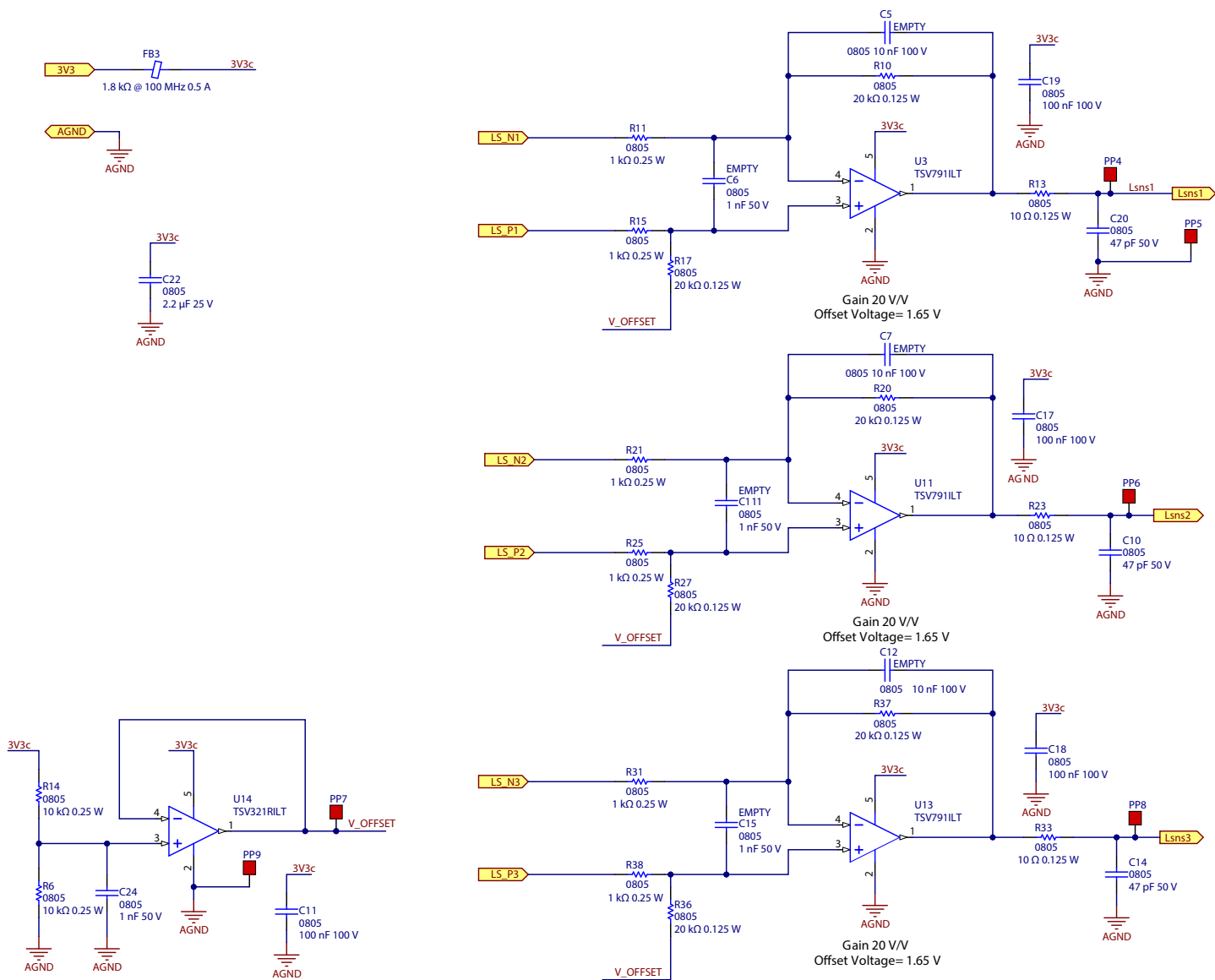
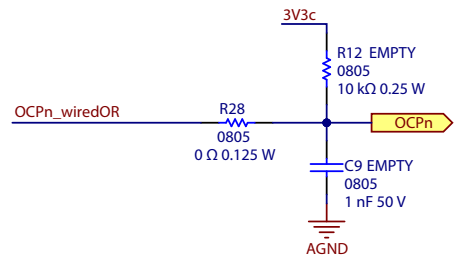
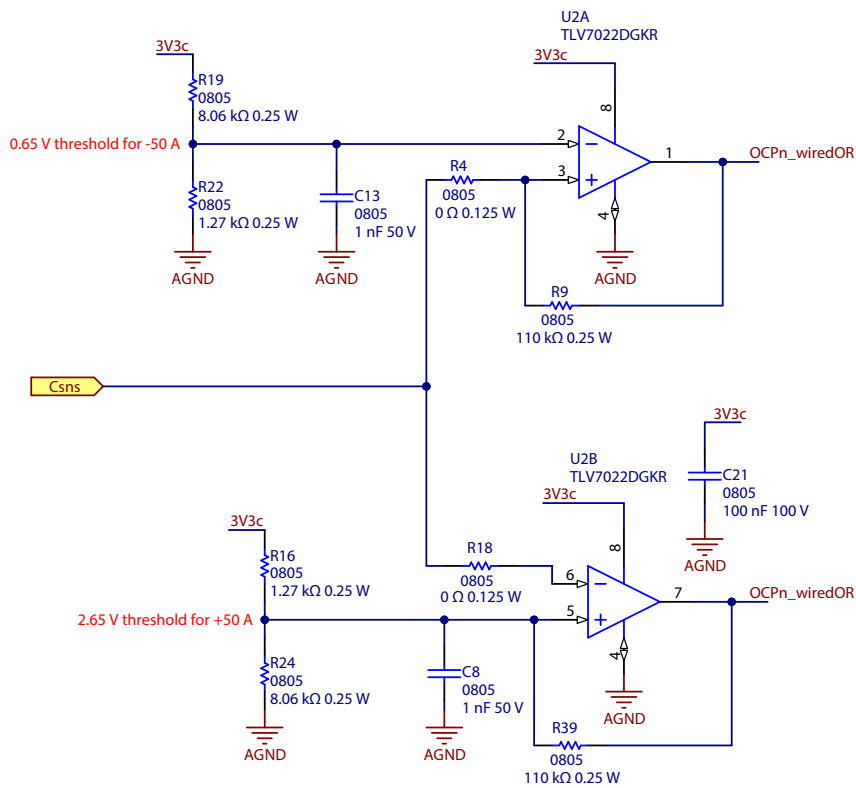
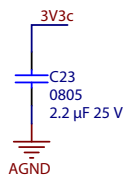


Figure 17: Bi-Directional Leg Current Sense Amplifier



R12 and C9 are not mounted because they are mounted in front of the gate driver.

Figure 18: Bi-Directional Over Current Detection

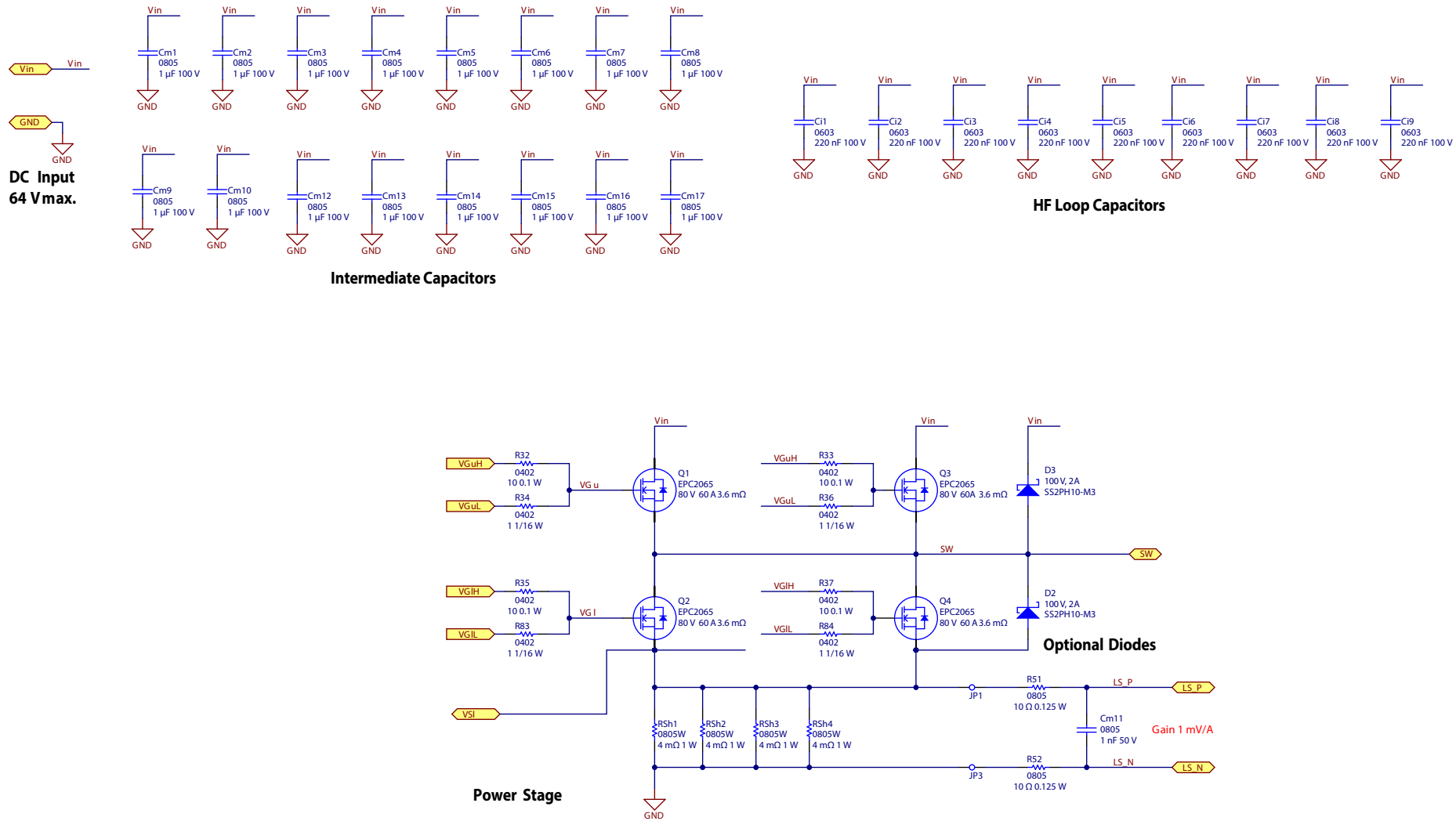


Figure 19: EPC2065 Phase-Leg. In EPC9167 only Q1 and Q2 are mounted. In EPC967HC all four transistors (Q1, Q2, Q3, and Q4) are mounted.

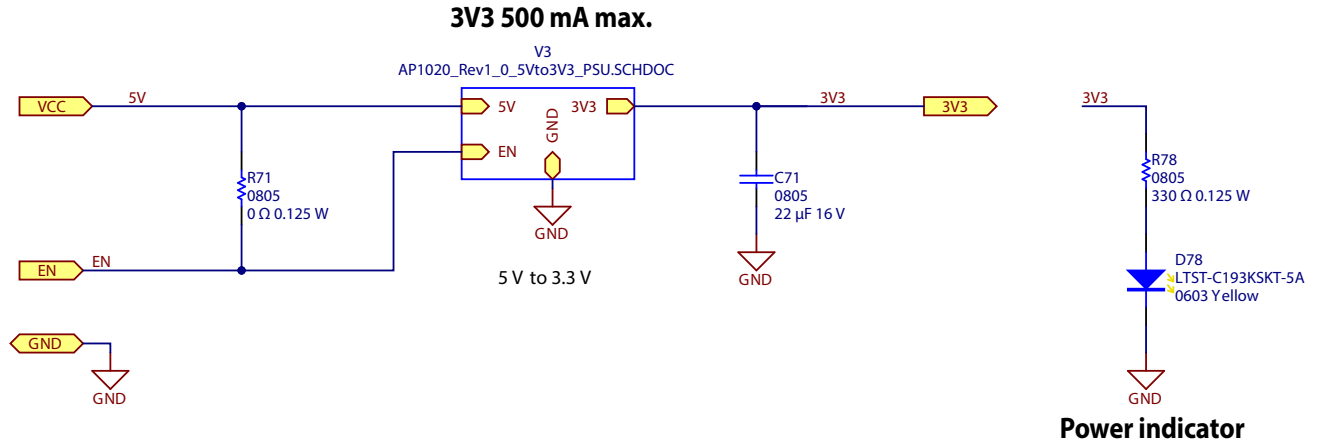


Figure 20: 5 V to 3.3 V LDO Housekeeping Power Supply

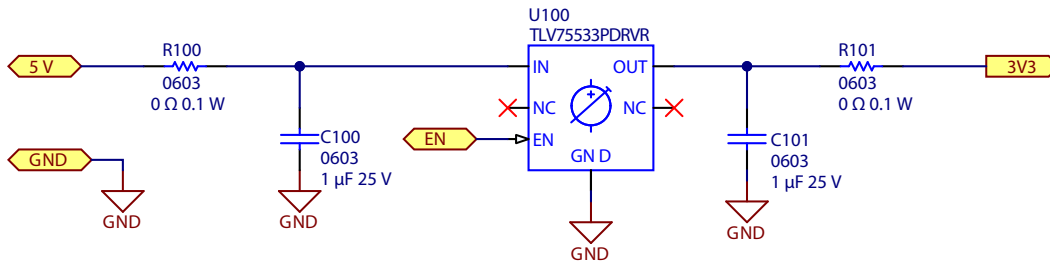


Figure 21: 5 V to 3.3 V LDO power supply

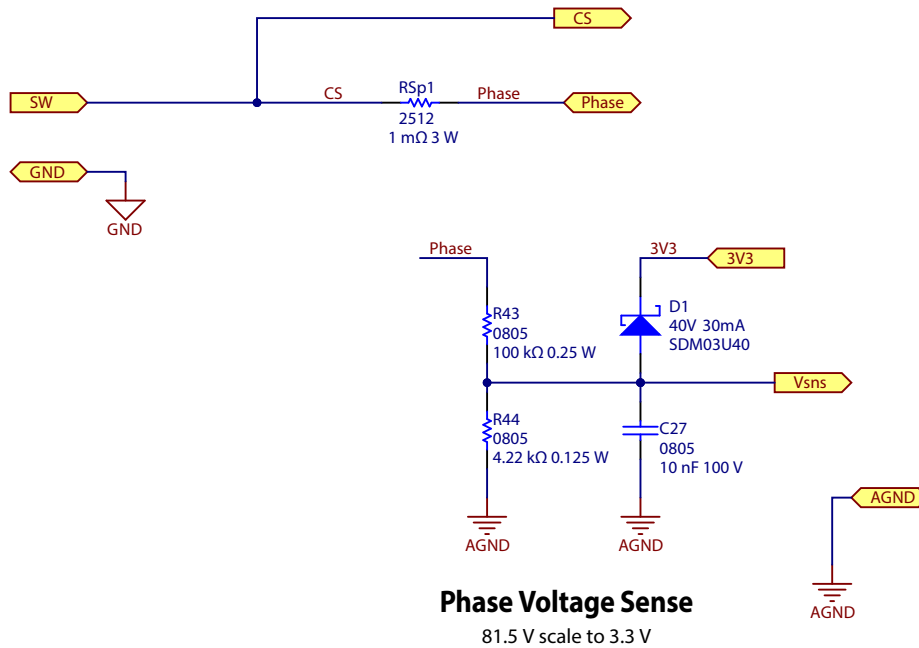
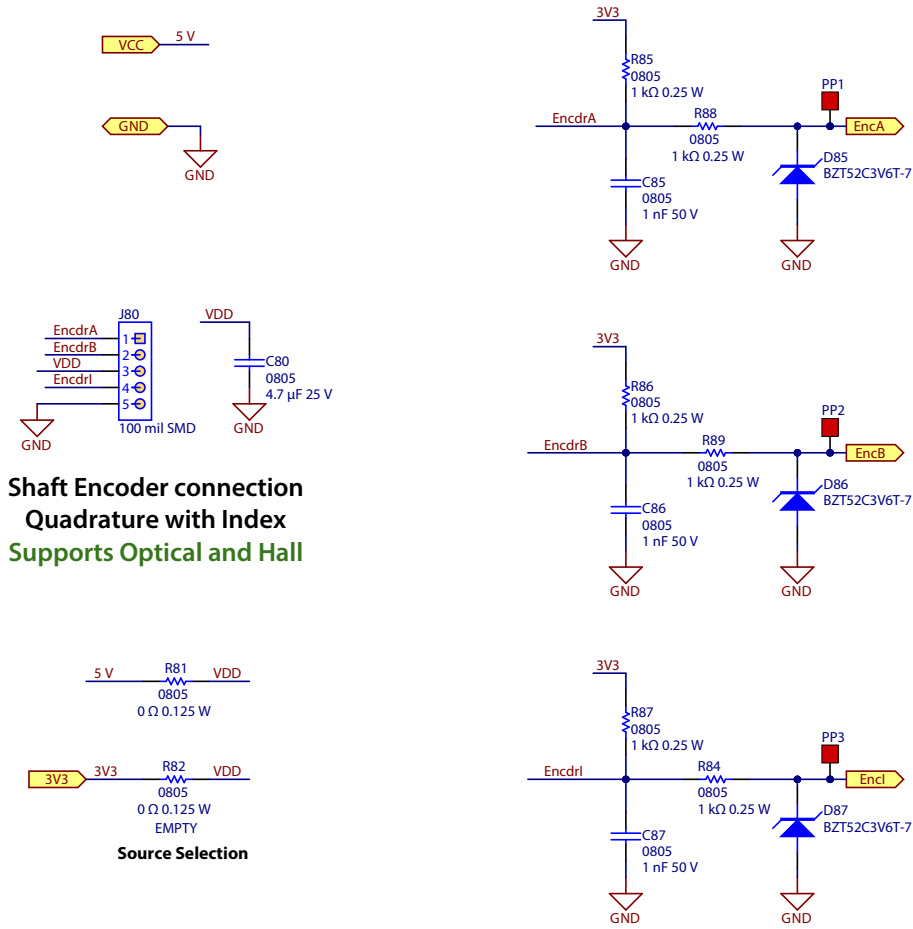


Figure 22: Phase shunt and phase voltage sense



**Shaft Encoder connection**  
**Quadrature with Index**  
**Supports Optical and Hall**

Figure 23: Shaft-encoder interface schematic

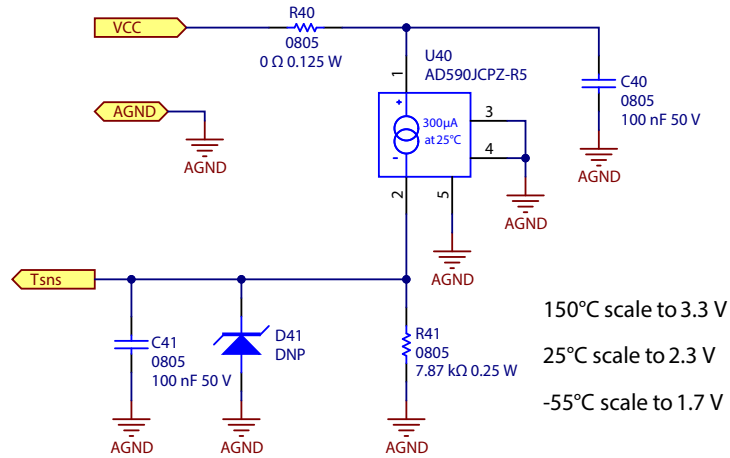


Figure 24: Temperature sensor schematic

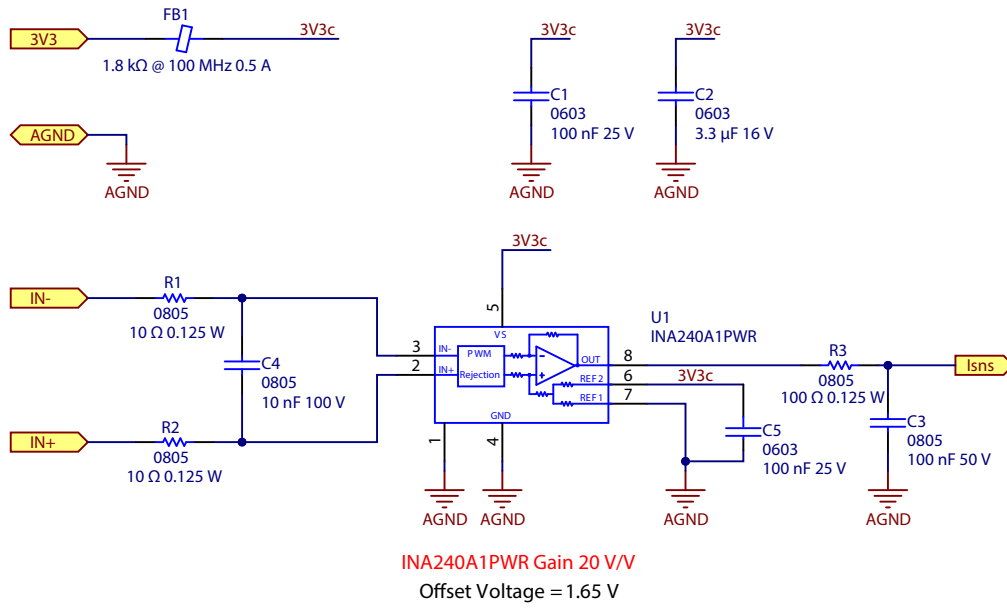


Figure 25: Current sense amplifier

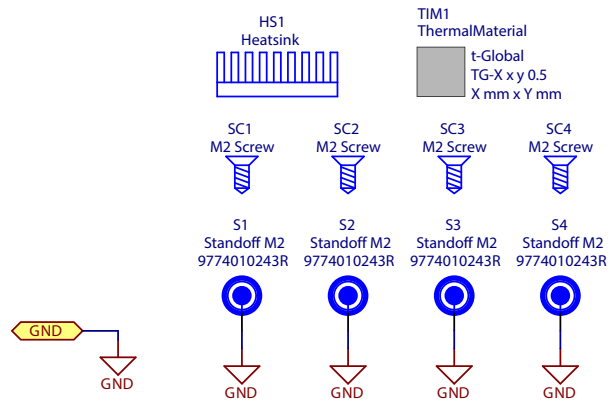
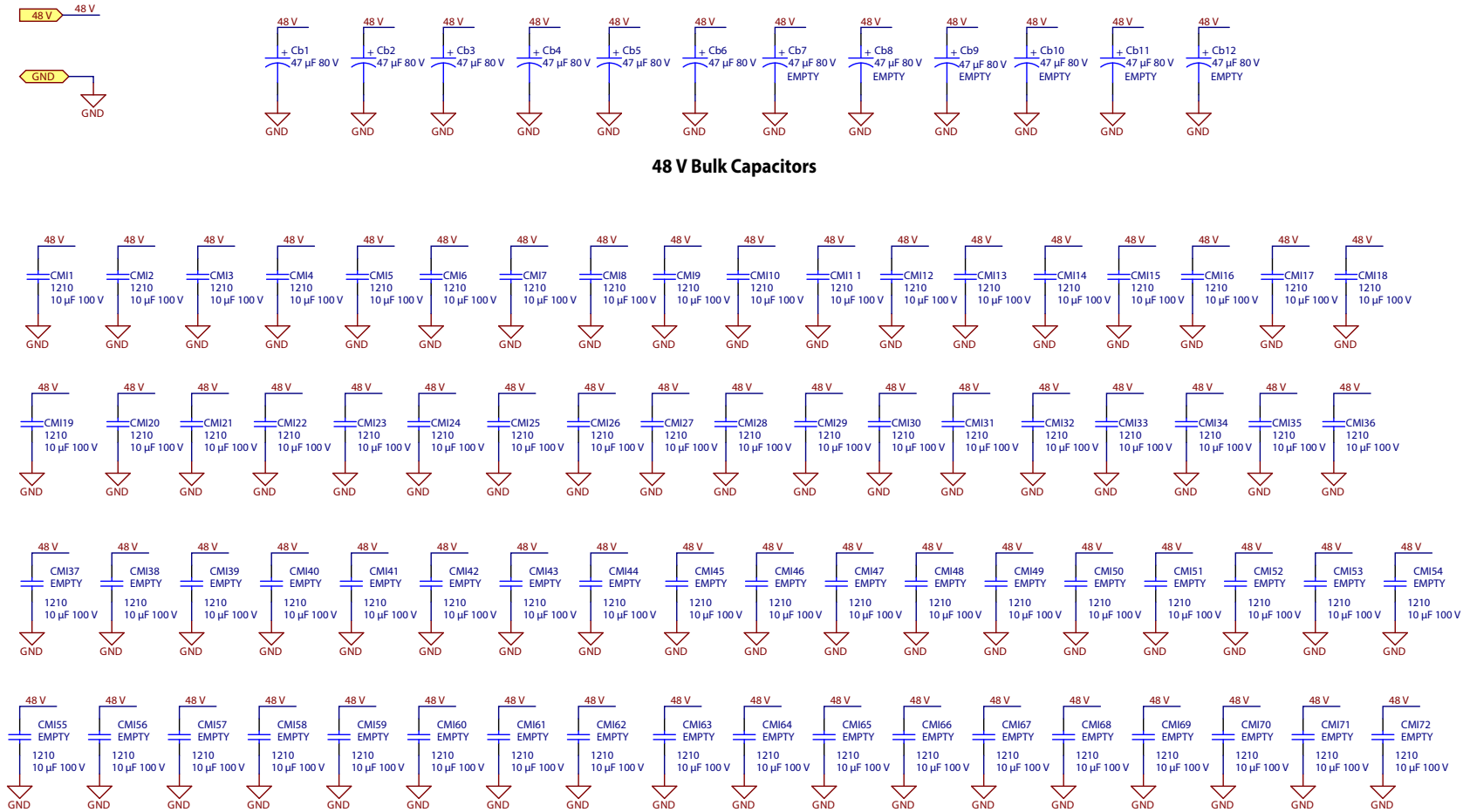


Figure 26: Heatsink kit schematic

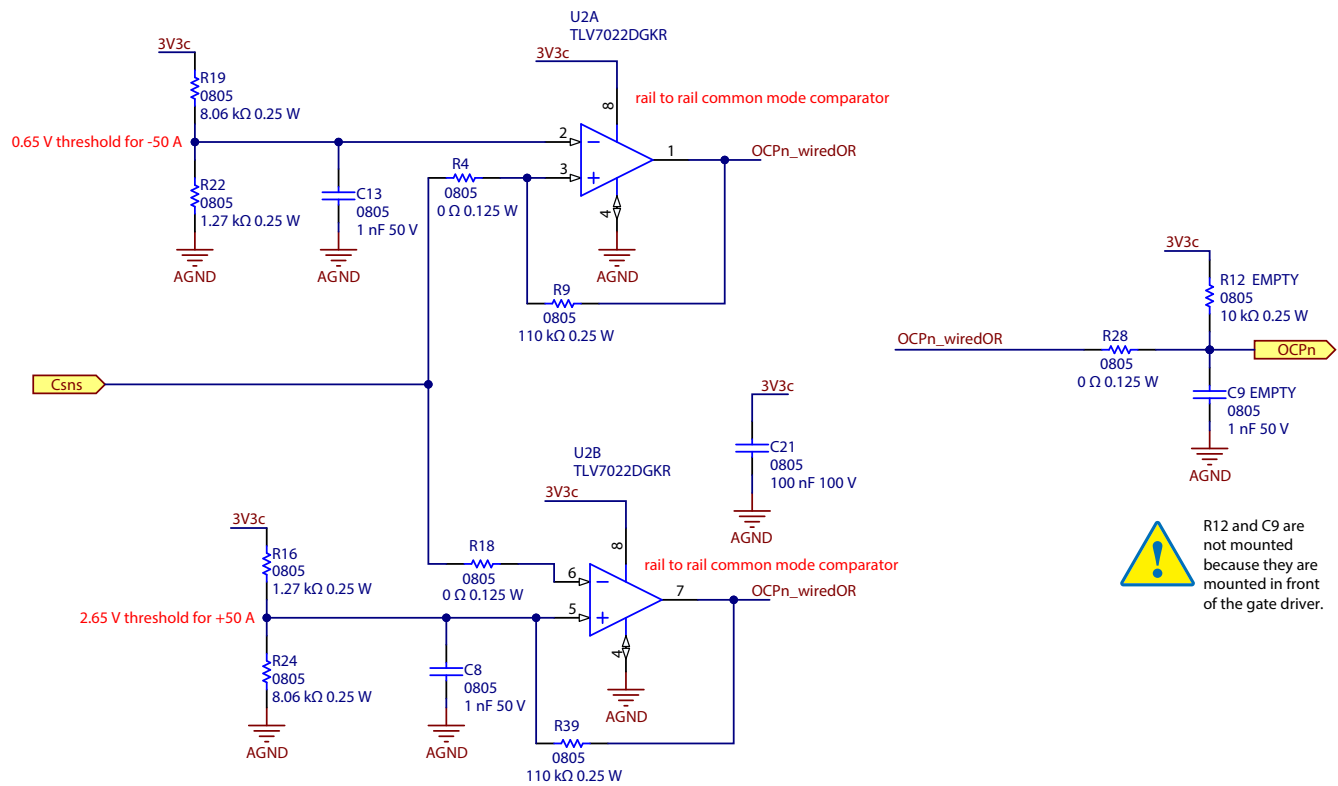
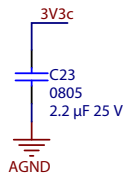
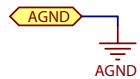
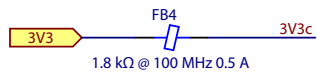




**48 V Bulk Capacitors**

**48 V Medium Frequency Capacitors**

Figure 27: High Power Motor Drive DC Bus Capacitors




 R12 and C9 are not mounted because they are mounted in front of the gate driver.

Figure 28: Bi-Directional Over Current Detection

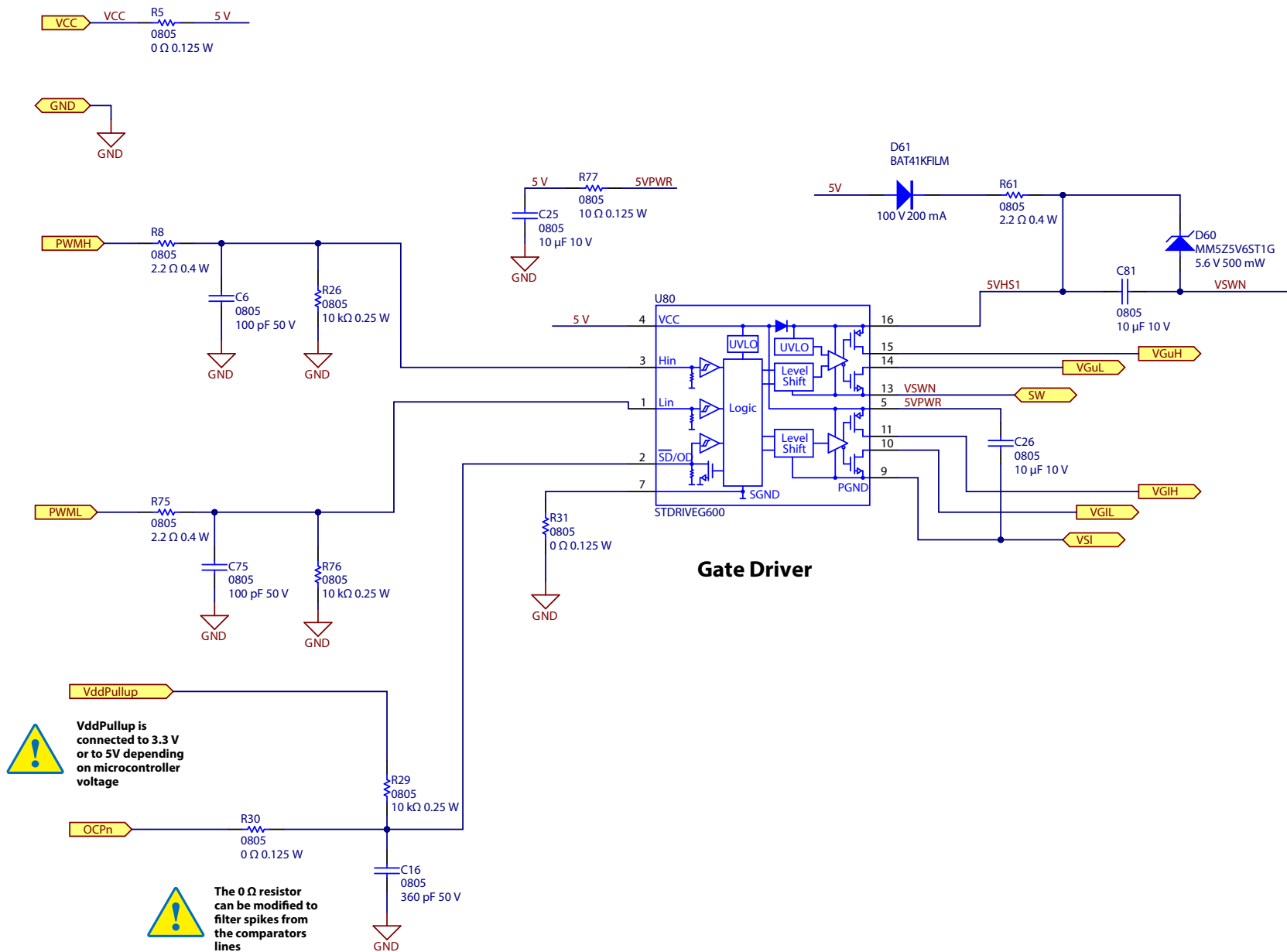


Figure 29: Half Bridge Gate Driver