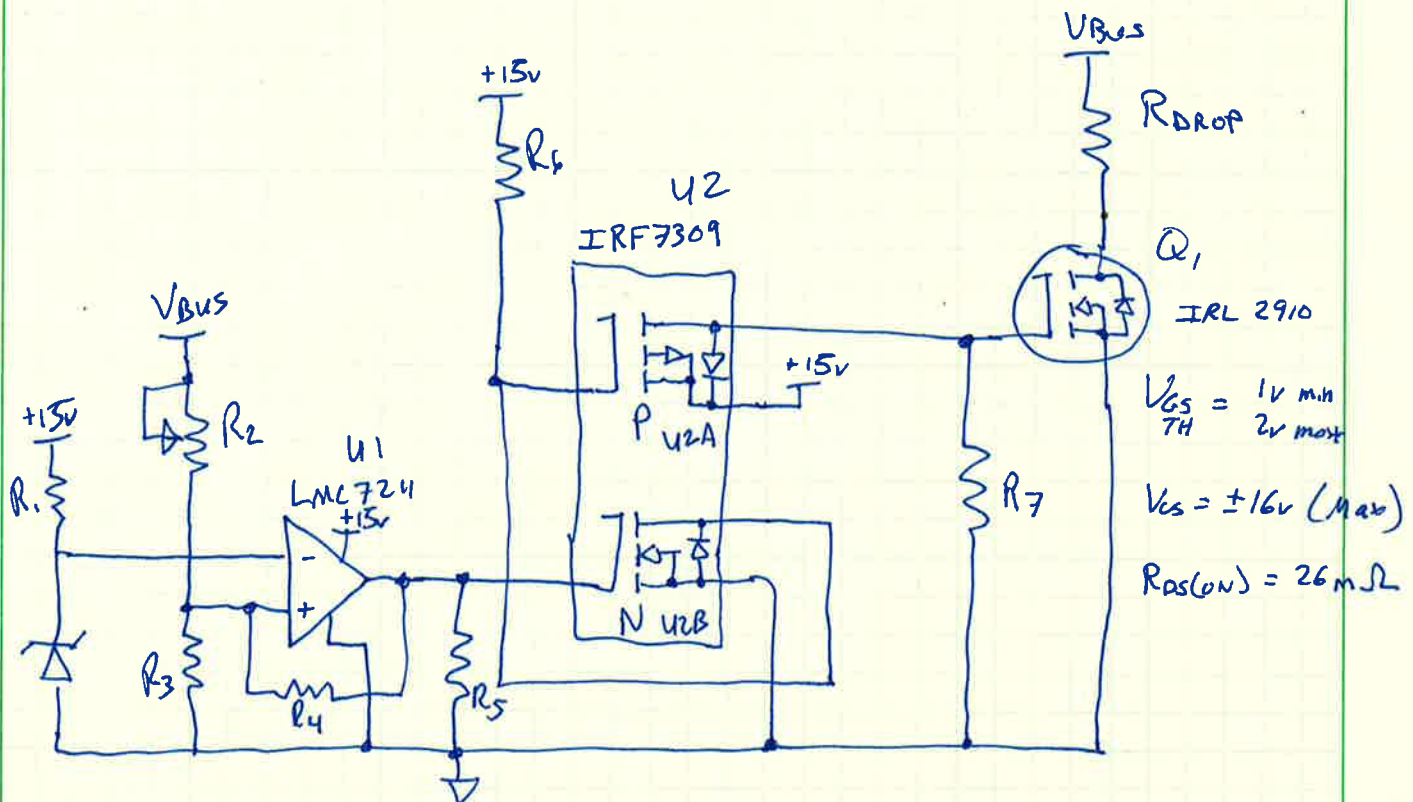




When $V_{IN+} > V_{IN-}$, the output of the LMC7211 goes high. (R_5 keeps U2B off at all other times). When U2B turns on, a low goes to U2A G, which turns on U2A. U2A passes +15V to Q1 Gate, turning it on. Current now flows from the bus thru R_{DROP} , Q1 to ground.

R_{DROP} chosen to ~~to~~ limit current through Q1 and to drop enough voltage to keep V_{BUS} at the proper voltage.

$$\text{Maximum expected current} \quad \frac{600W \text{ (Vicor Max)}}{48V} = 12.5A$$

$$\approx \frac{50V}{12.5A} = 4\Omega \quad (12.5A)^2 \times 4\Omega = 625W = 625 J/s$$

During simulations, found pulse width (positive spike) to be $\approx 150\mu s$ wide
 $(625 J/s)(150\mu sec) \approx 100mJ$

Chose A Series PulsEater ceramic resistors from Ohmite

AY series good to 2kV and 1.4kJ (pulse only)
 nominal 4.5W
 $\approx 1" \times 1" \times 0.75" \text{ (wide)}$