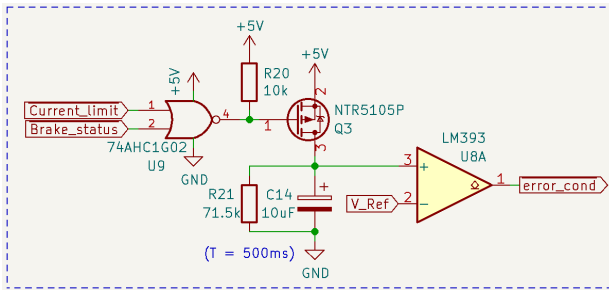


Test procedure:

1. Apply test current
2. Brake hard

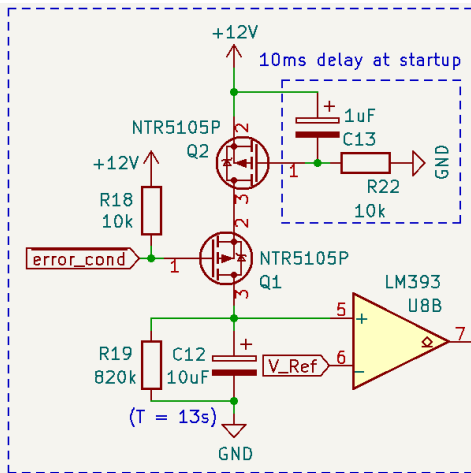
Test current calculation:

$$I_{\text{test}} = 5\text{kW}/U_{\text{max}} = 5\text{kW}/454\text{V} = 11\text{A}$$



Delay between NOR port output rising and comparator output falling is given by the time required by voltage on C14 to go from 5V to  $V_{\text{REF}} = 2.5\text{V}$ , it is given by:

$$t = RC \cdot \log\left(\frac{V_I}{V_F}\right) = 71.5\text{k}\Omega \cdot 10\mu\text{F} \log\left(\frac{5}{2.5}\right) = 0.495\text{s}$$



Delay between error\_cond input rising and comparator output falling is given by the time required by voltage on C12 to go from 12V to  $V_{\text{REF}} = 2.5\text{V}$ , it is given by:

$$t = RC \cdot \log\left(\frac{V_I}{V_F}\right) = 820\text{k}\Omega \cdot 10\mu\text{F} \log\left(\frac{12}{2.5}\right) = 12.9\text{s}$$

Delay for Reset on powerup is given by considering RC time:

$$\tau = RC = 10\text{k}\Omega \cdot 1\mu\text{C} = 10\text{ms}$$