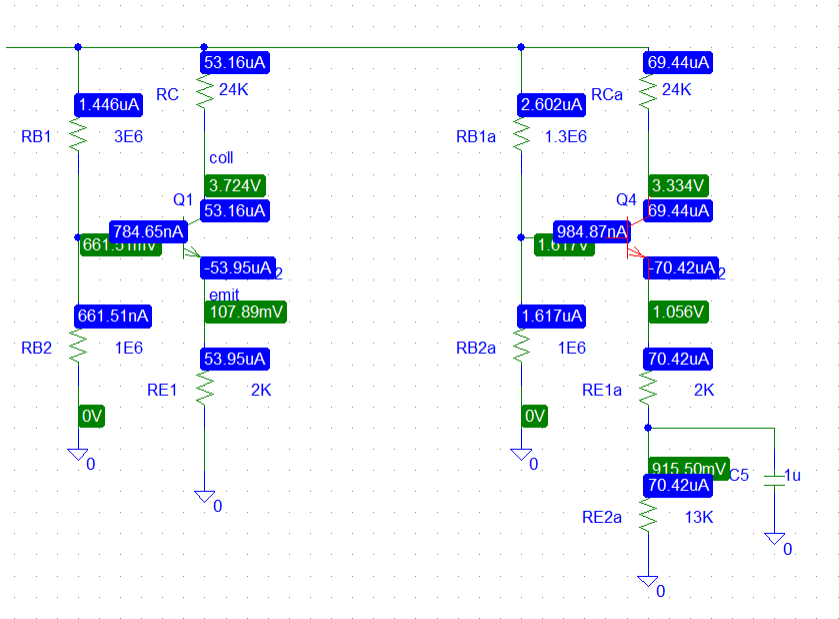


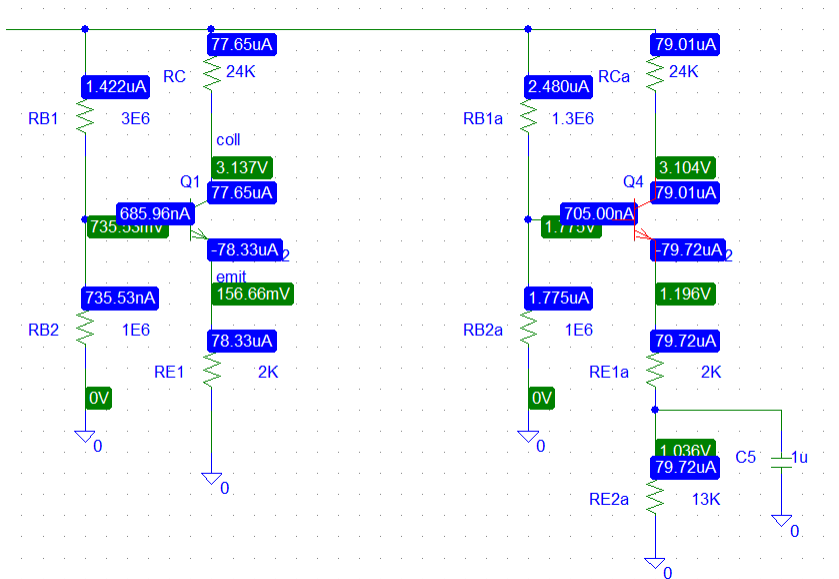
# Impact of $R_{E2}$ on DC biasing sensitivity

Beta	$I_C$ (No $R_{E2}$ )	$I_C$ (w/ 1V $R_{E2}$ )
70	$53\mu A$	$69\mu A$
110	$78\mu A$	$79\mu A$
200	$116\mu A$	$88\mu A$

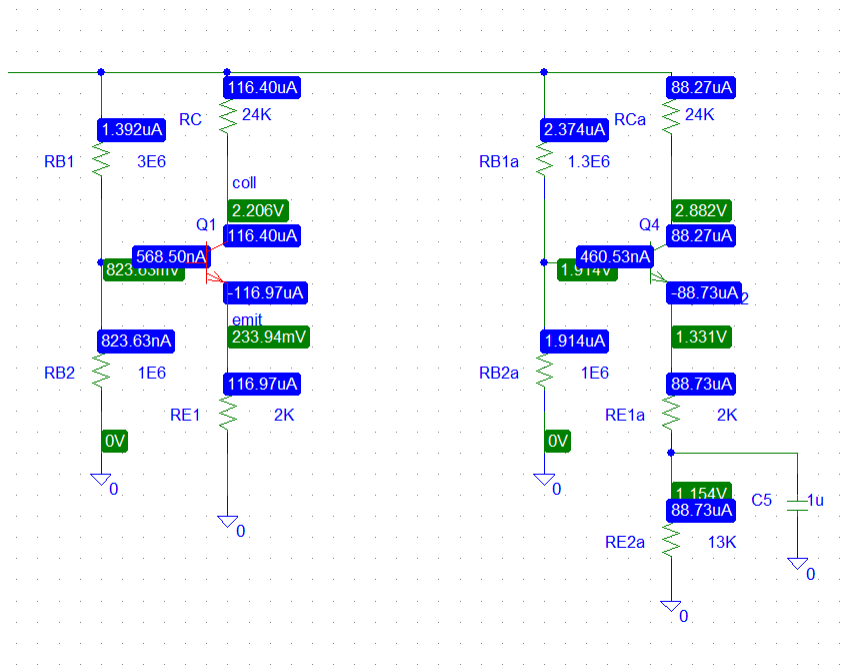
## Beta ~ 70



## Beta ~ 110



Beta ~ 200



### New Min Neg AC Swing Equation

$$I_C \leq \frac{V_{CC} - v_{omax} - 0.5V - V_{RE2}}{R_C + \frac{R_{E1}}{\alpha}} \sim \frac{V_{CC} - v_{omax} - 0.5V - V_{RE2}}{R_C + \frac{R_{in}}{\beta}}$$

Where  $V_{RE2}$  is the voltage across  $R_{E2}$ . I would suggest setting this to about 1V.