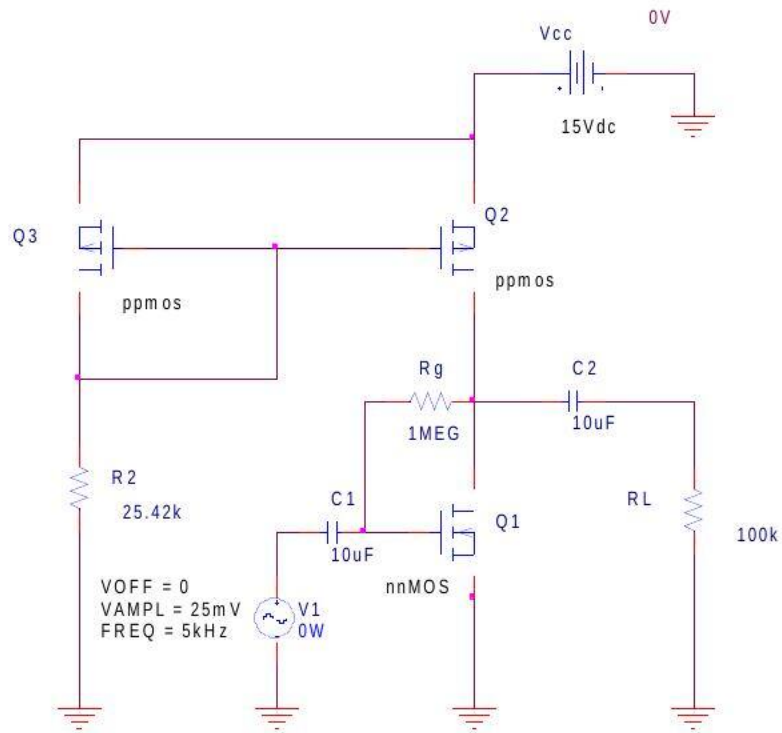


6)

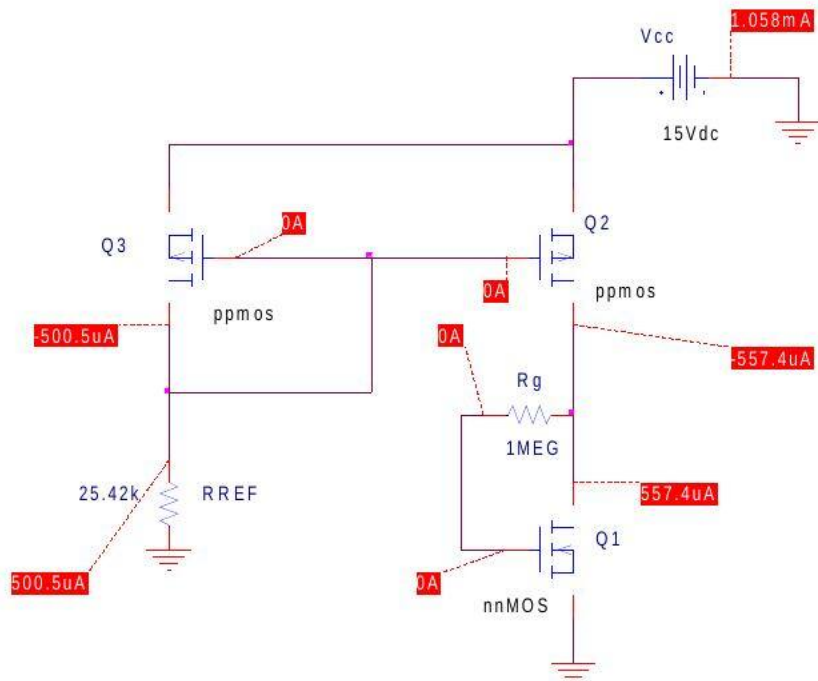
a)



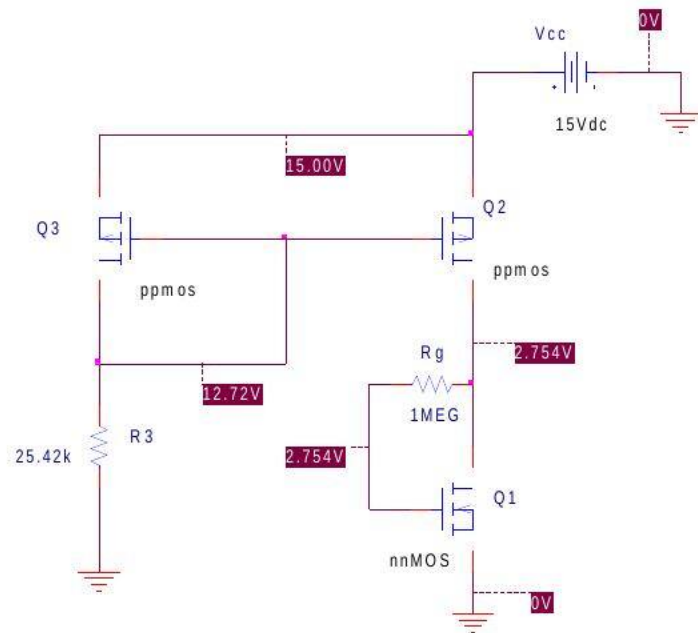
b) Bias simulation

DC analiz

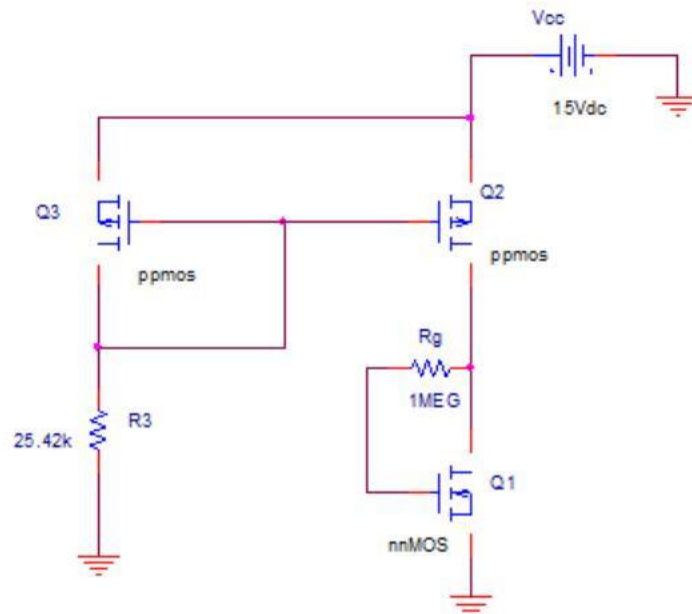
Akım Değerleri :

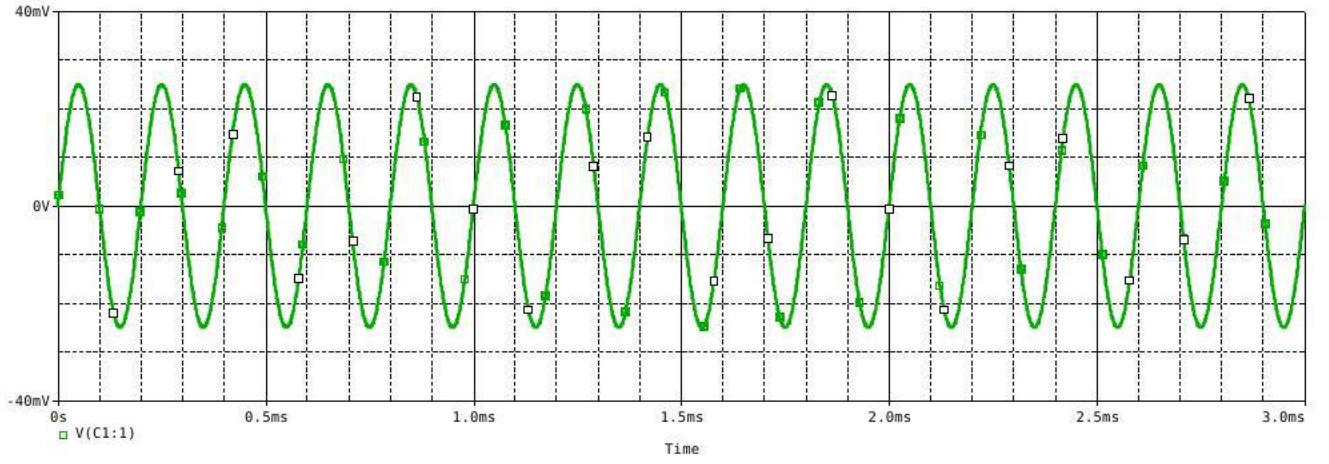


Voltaj Değerleri :

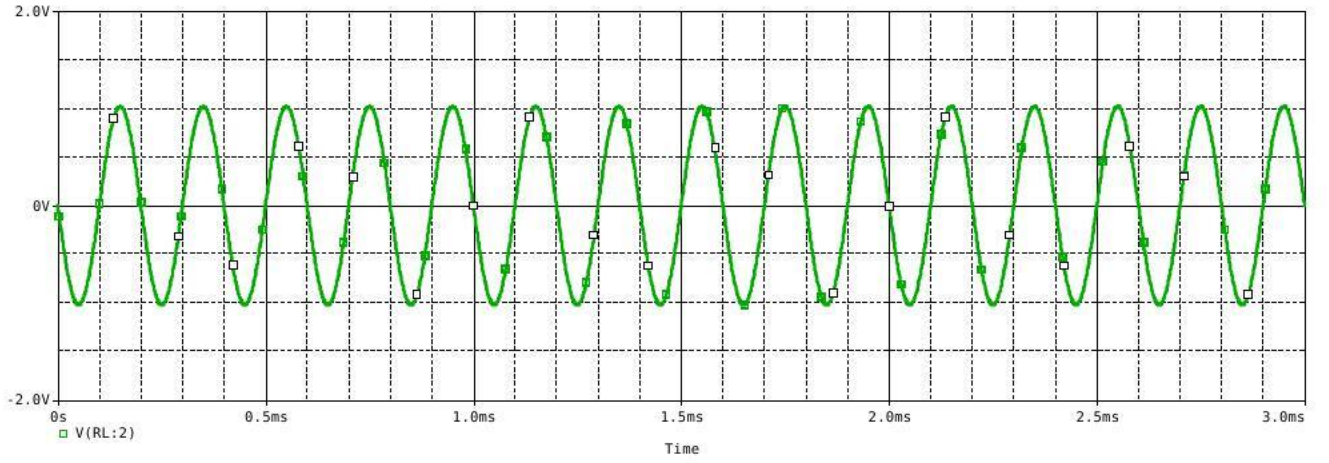


c) Transient simulation





$$V_{in} = 25 \text{ mV (peak)}$$

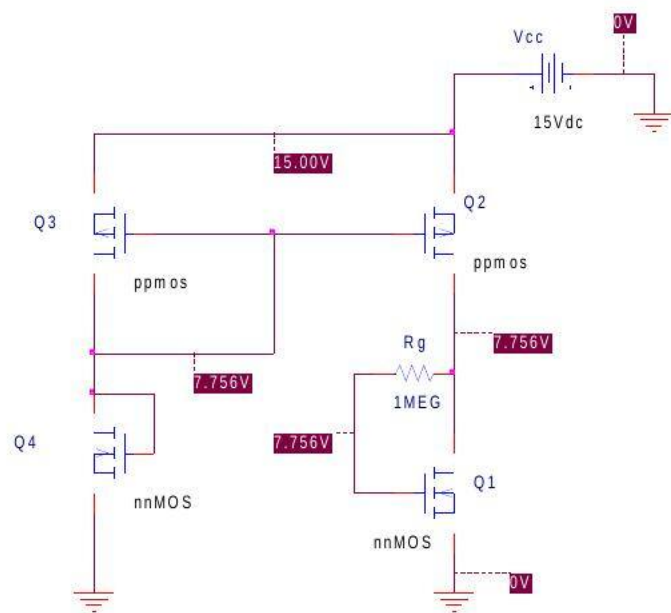


$$V_{out} = 1.018 \text{ V (peak)}$$

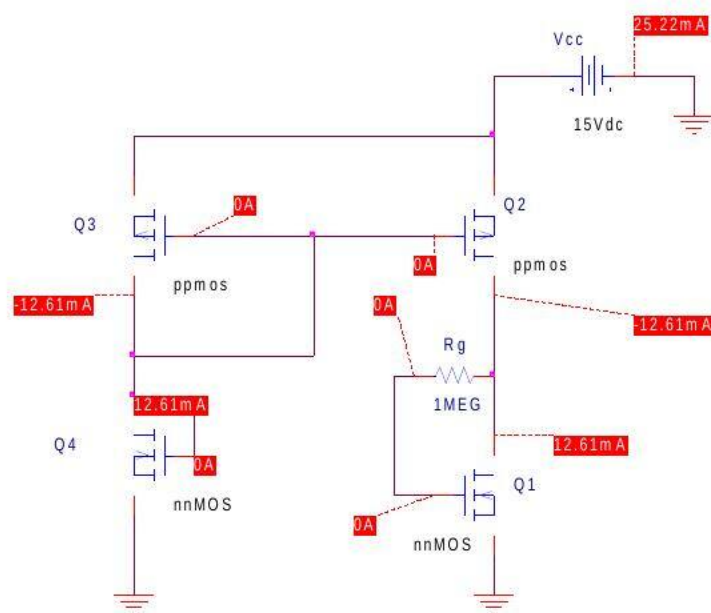
$$A_v = - V_{out} / V_{in} = -40$$

d) A ve B noktaları arasına , Q₄ NMOS tipi transistörünü bağladık.

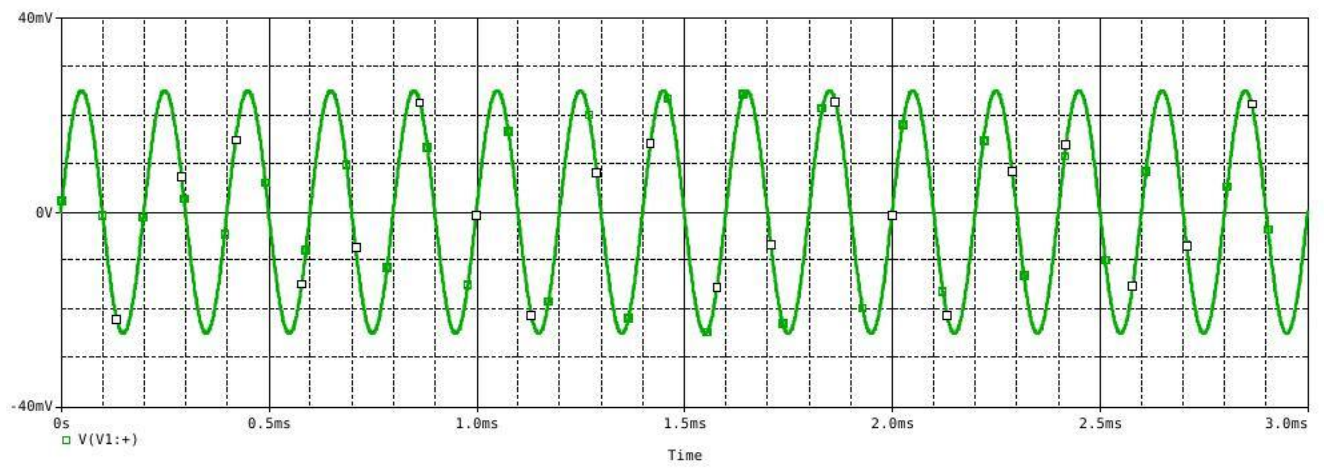
DC voltajlar



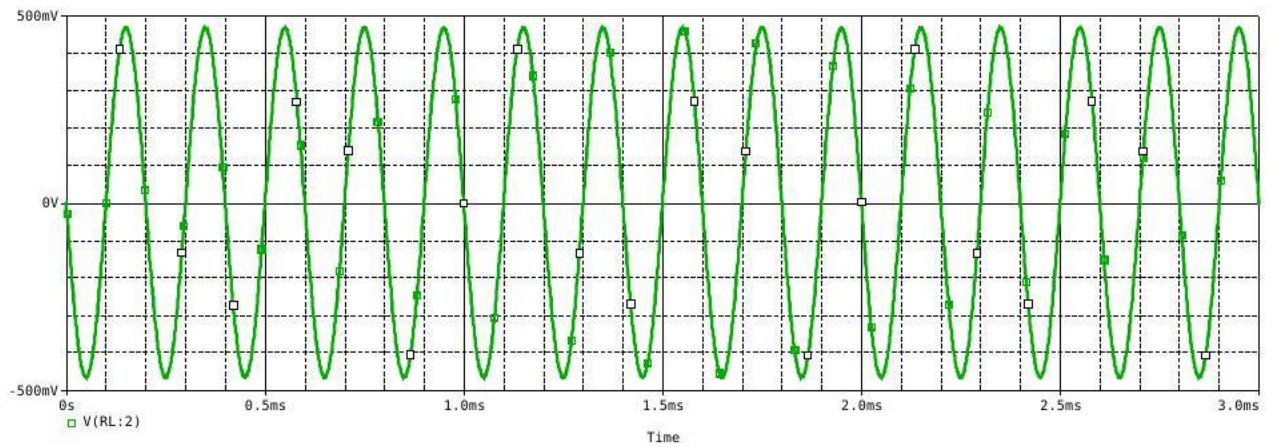
DC akımlar



AC analiz



$$V_{in} = 25 \text{ mV}$$



$$V_{out} = 468 \text{ mV (peak)}$$

$$A_v = 18.72$$