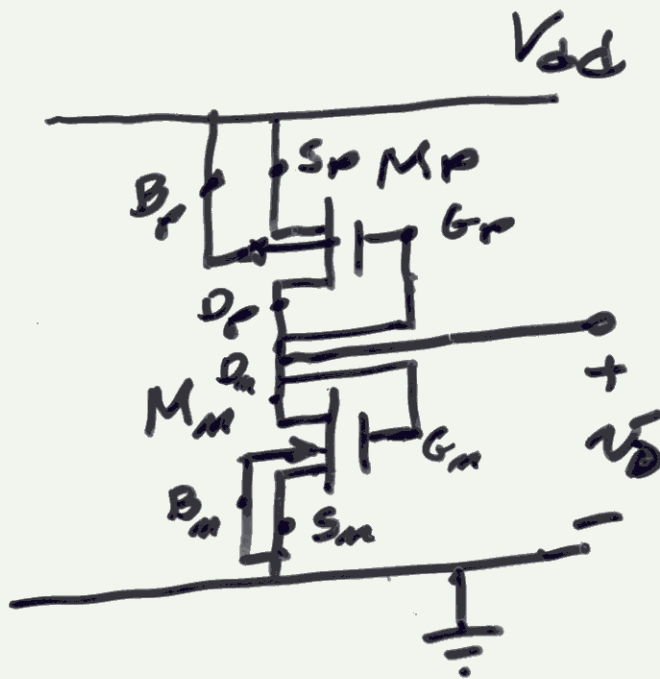


EE302

P.1
10/17/00enhancement
mode

$$V_{thn} > 0$$

$$V_{thp} < 0$$

$V_{DS_n} = V_{GS_n} \geq V_{GS_n} - V_{thn} \Rightarrow M_n$ is in saturation if on.

M_p is in saturation also, if on
 $I_{B_n} = I_{B_p} = 0$ as bulk tied to source.

$\therefore I_{S_p} = I_{D_n}$ if V_{dd} big enough

$$= \frac{K_{Pp}(W)}{2(L_p)} (V_{SSp} - |V_{thp}|)^2$$

by KCL

$$= \frac{K_{Pn}(W)}{2(L_n)} (V_{GS_n} - V_{thn})^2$$