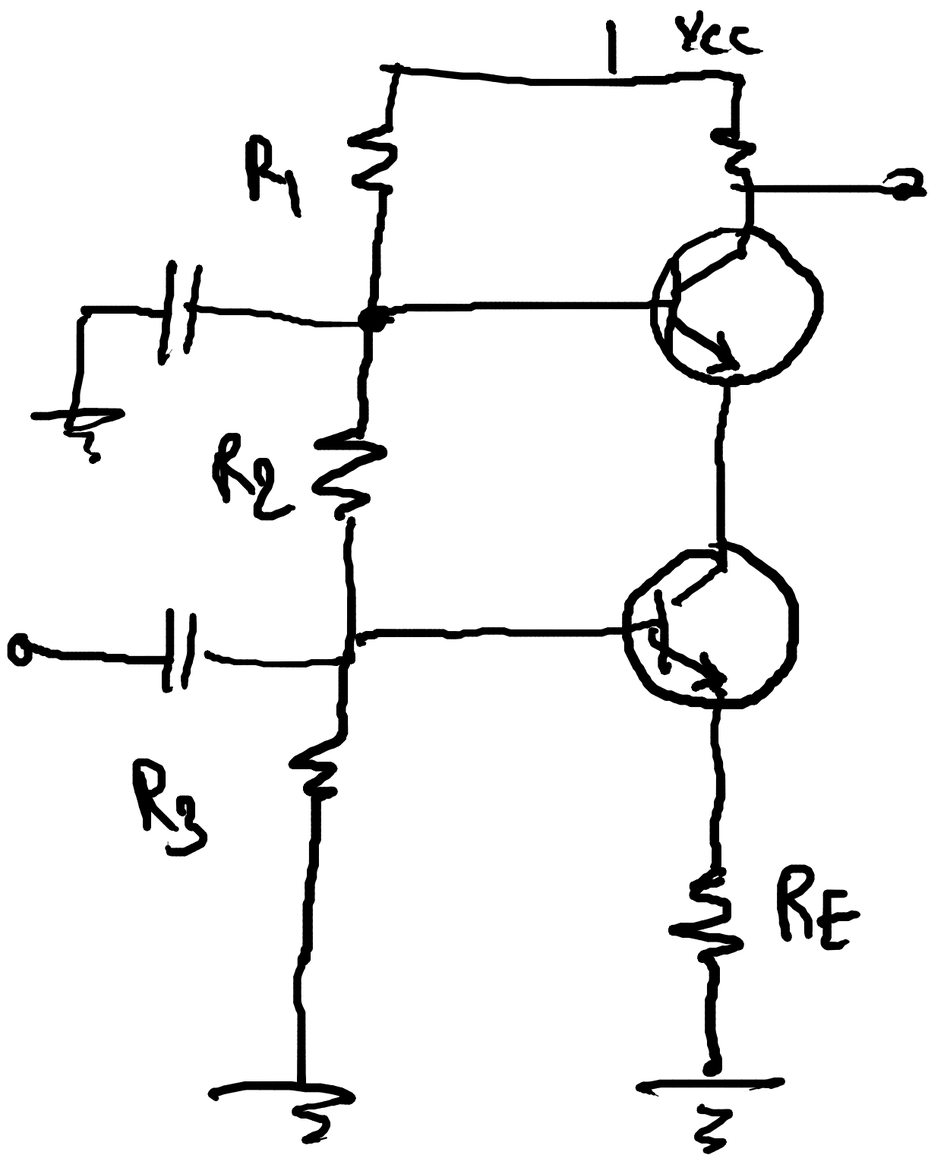
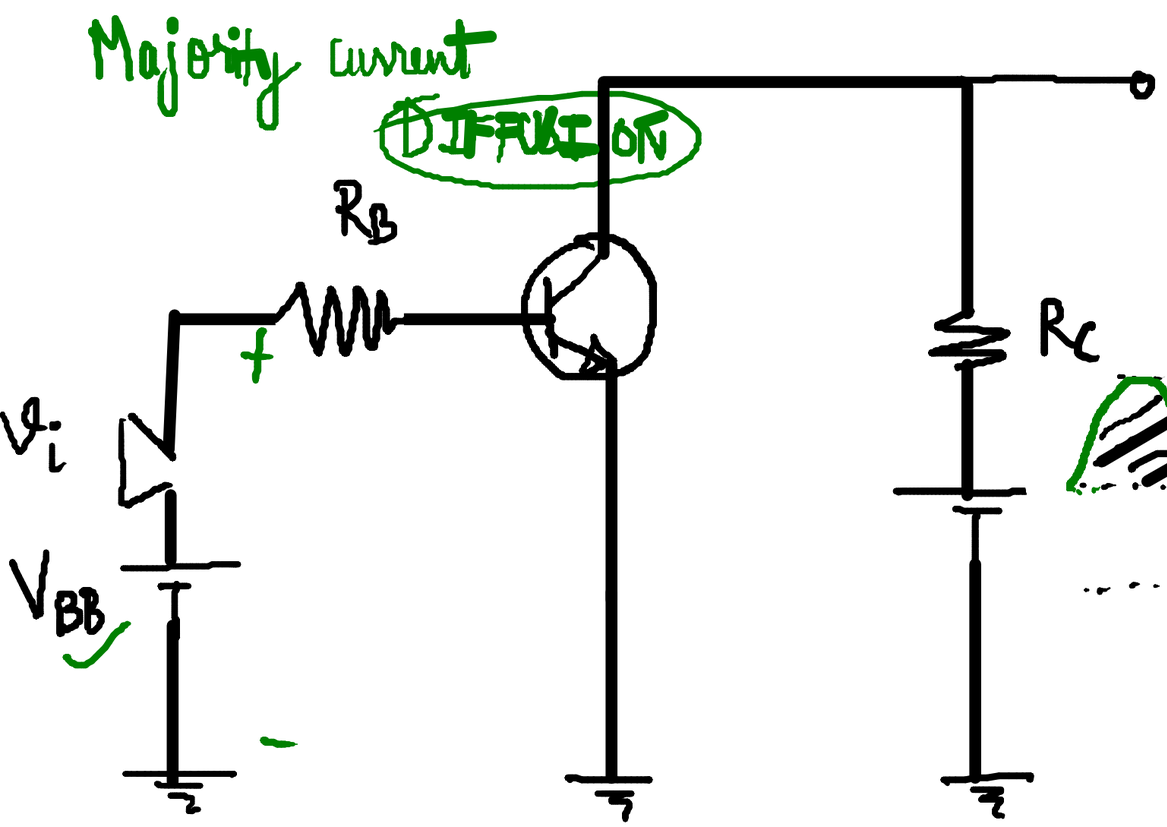
Cascode



Majority current

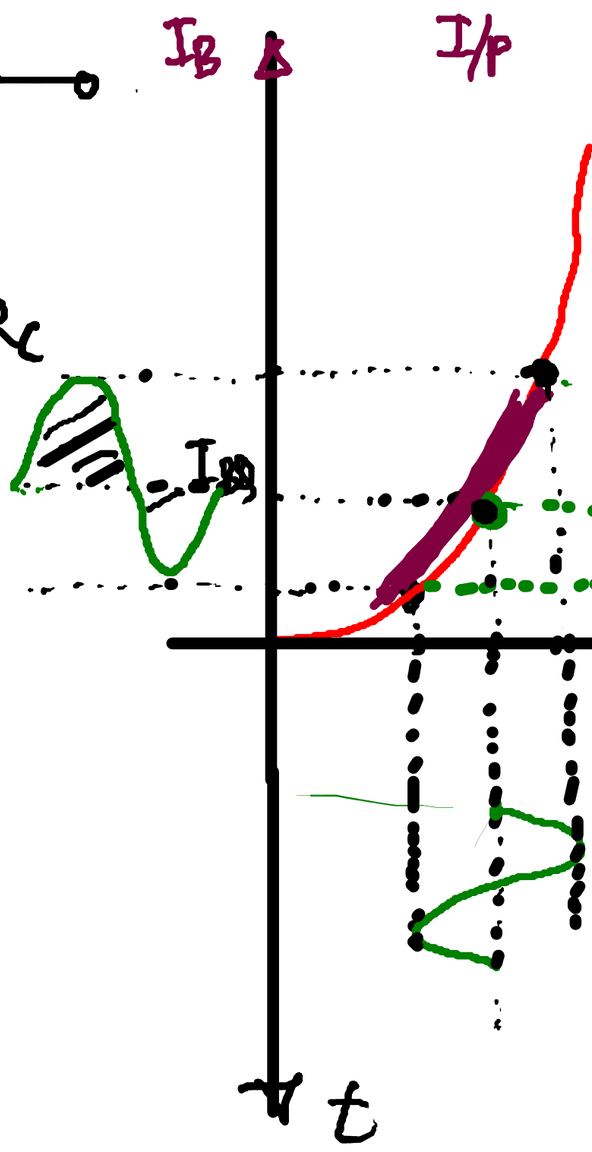
DIFFUSION

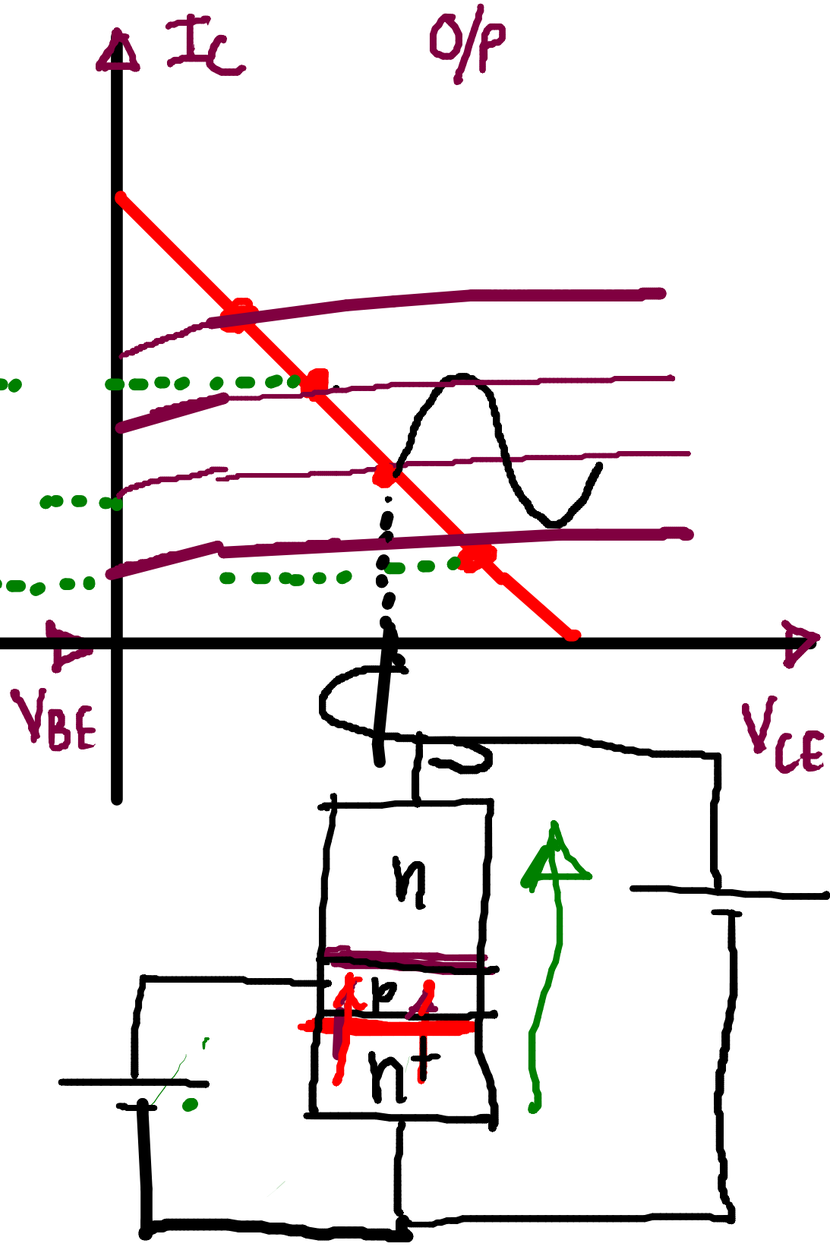


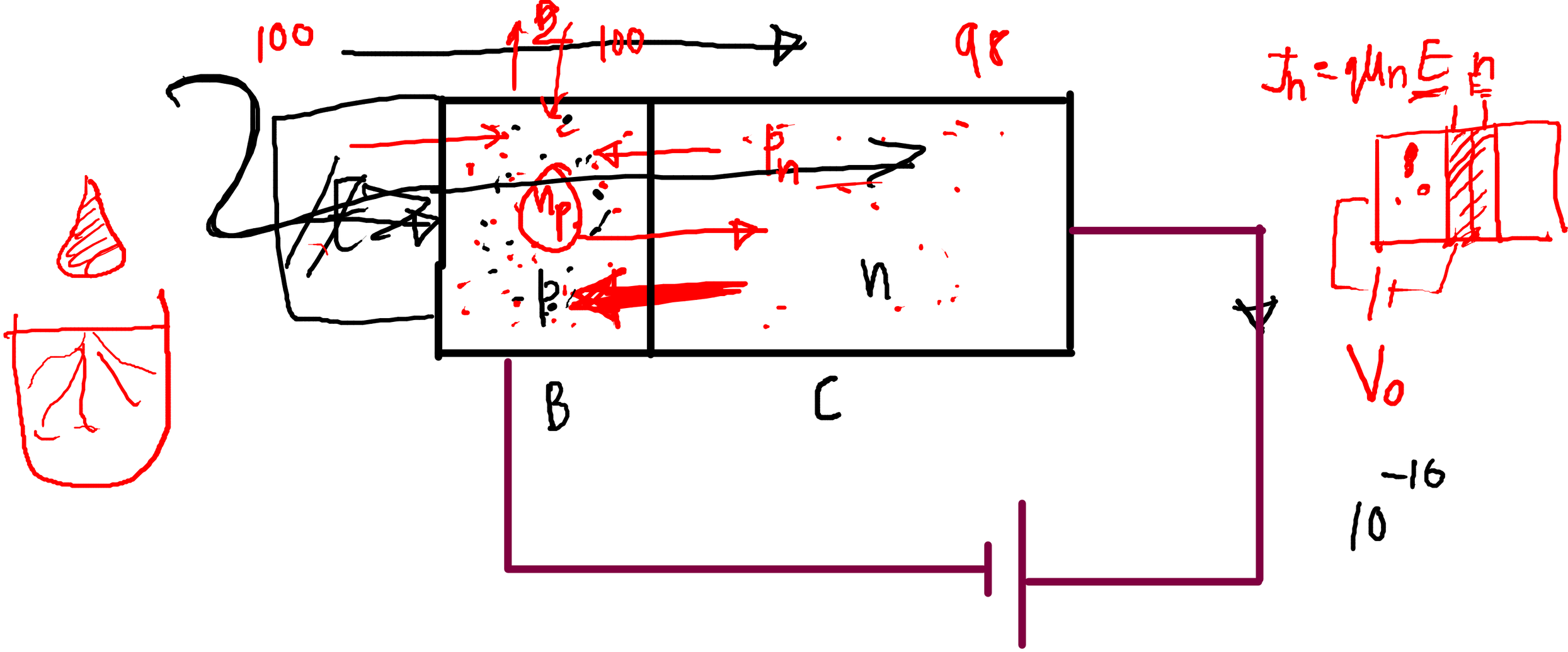
For CE

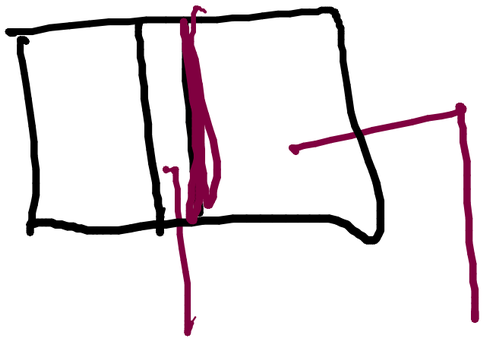
I/p : I_B , V_{BE}

o/p : I_C , V_{CE}





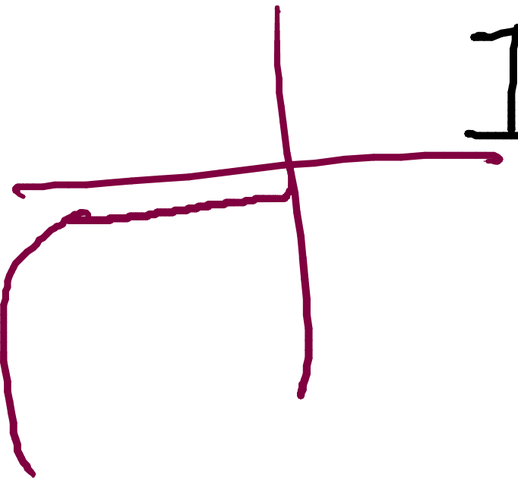

100
100
98
$J_n = q\mu_n E$
n_p
p_n
p
n
B
C
V_0
10^{-16}



$$q D_p \frac{dp}{dx} = q p \mu_p \mathcal{E}$$

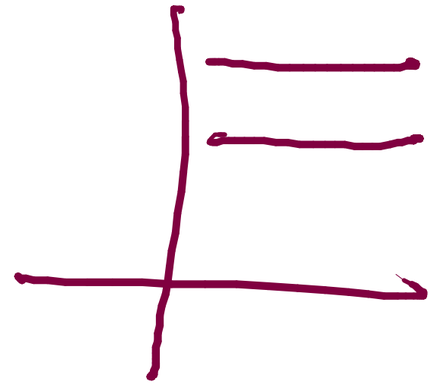
I_B

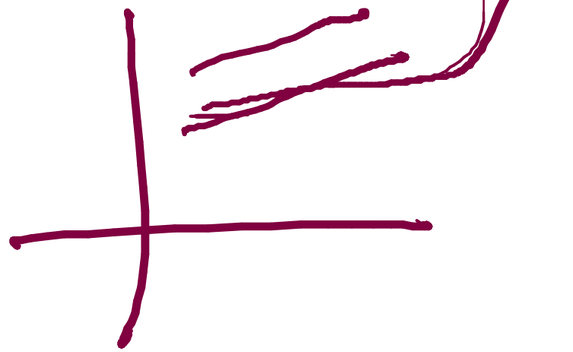
$$I_C = I_{CBO} + I_s \exp\left(\frac{V_{BE}}{nV_T}\right)$$

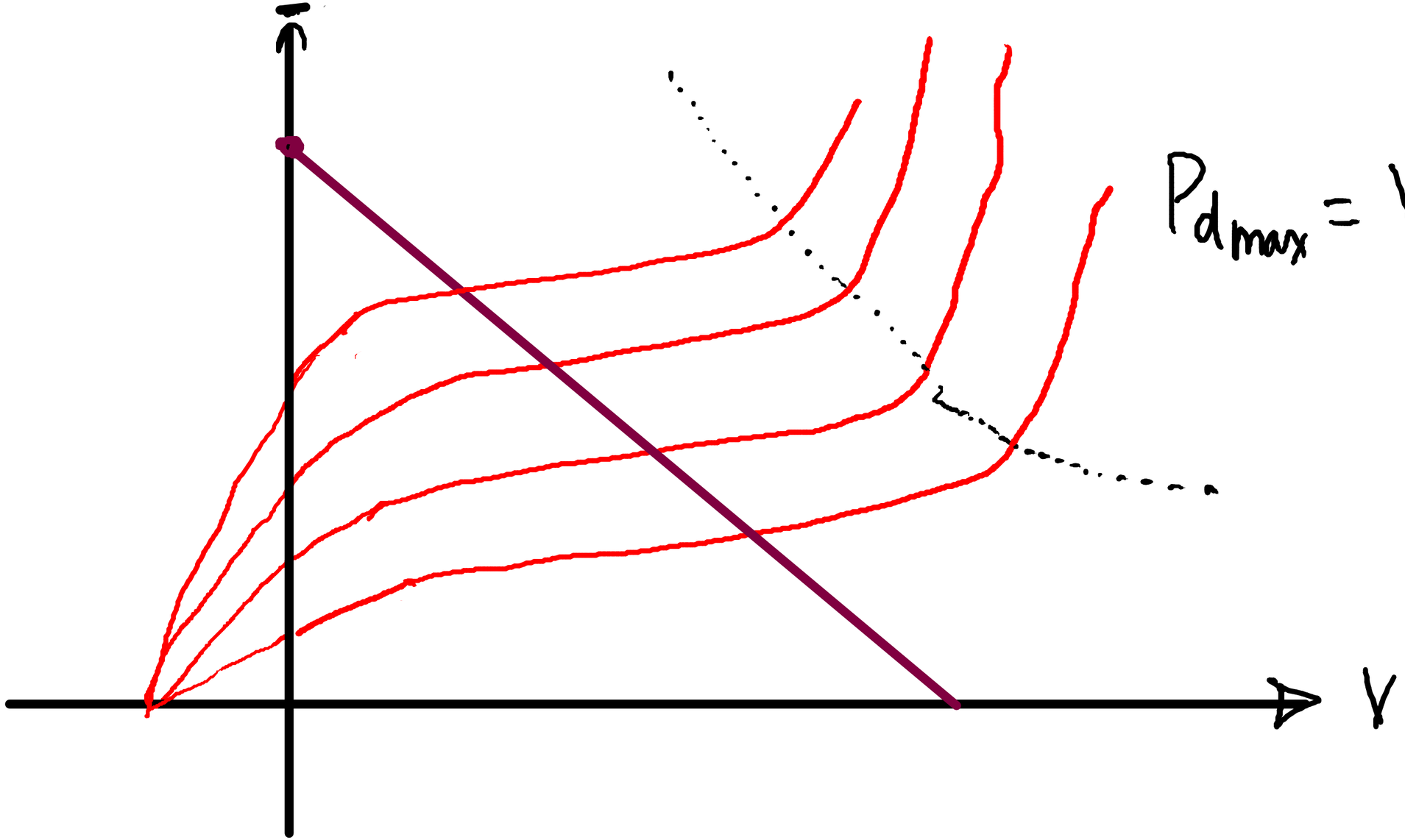


$$I_C = f(V_{BE}, V_{CE})$$

Output current is function of input current & output voltage.






I
V
$P_{d_{max}} = V_{CE} \times I$