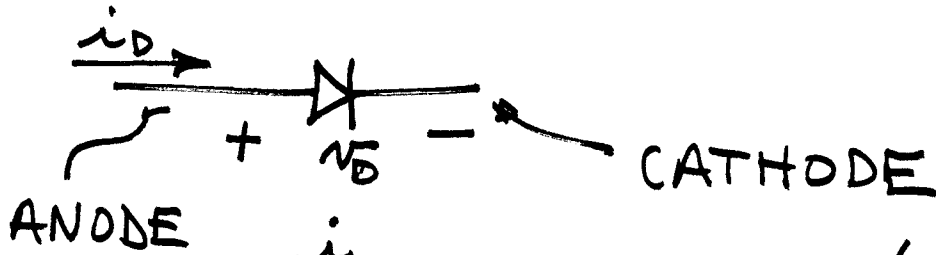
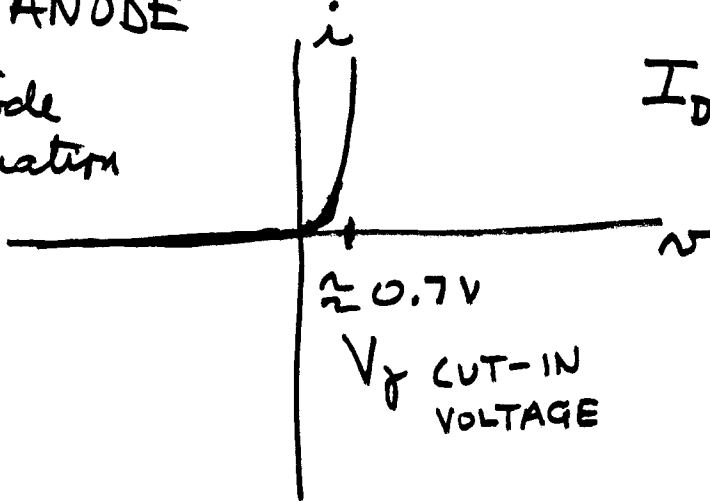


DIODE MODELS



① Diode Equation

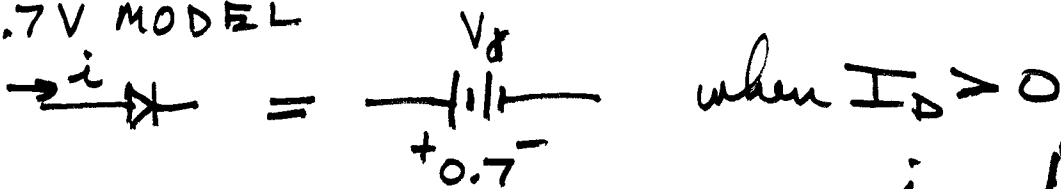


$$I_D = I_S \left(e^{\frac{V_D}{mV_T}} - 1 \right)$$

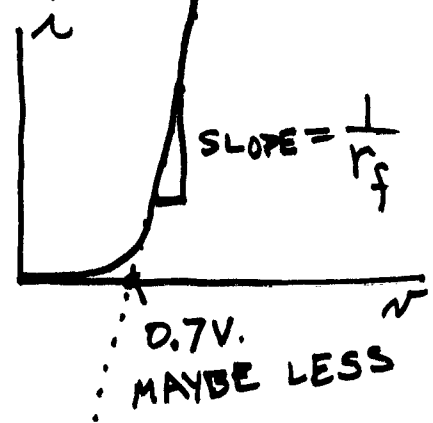
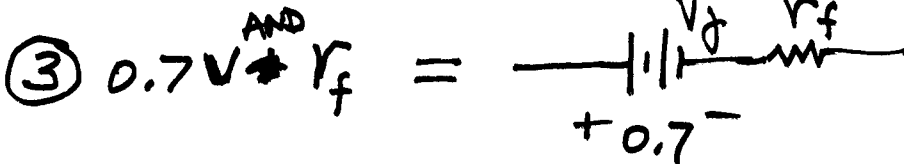
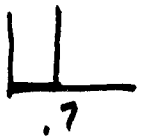
$m =$ EMISSION COEFFICIENT
 $m = 1$
 $1 \leq m \leq 2$

$$\frac{V_D}{mV_T} \approx I_D I_S$$

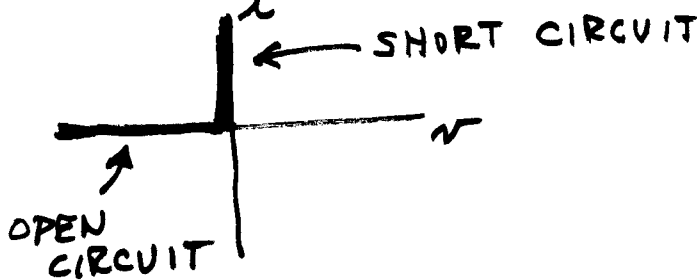
② 0.7V MODEL



when $I_D > 0$



④ IDEAL DIODE MODEL



$I_D > 0$ DIODE IS FORWARD BIASED
 " " " ON

$I_D = 0, V_D < 0$ DIODE IS REVERSE BIASED
 OFF

