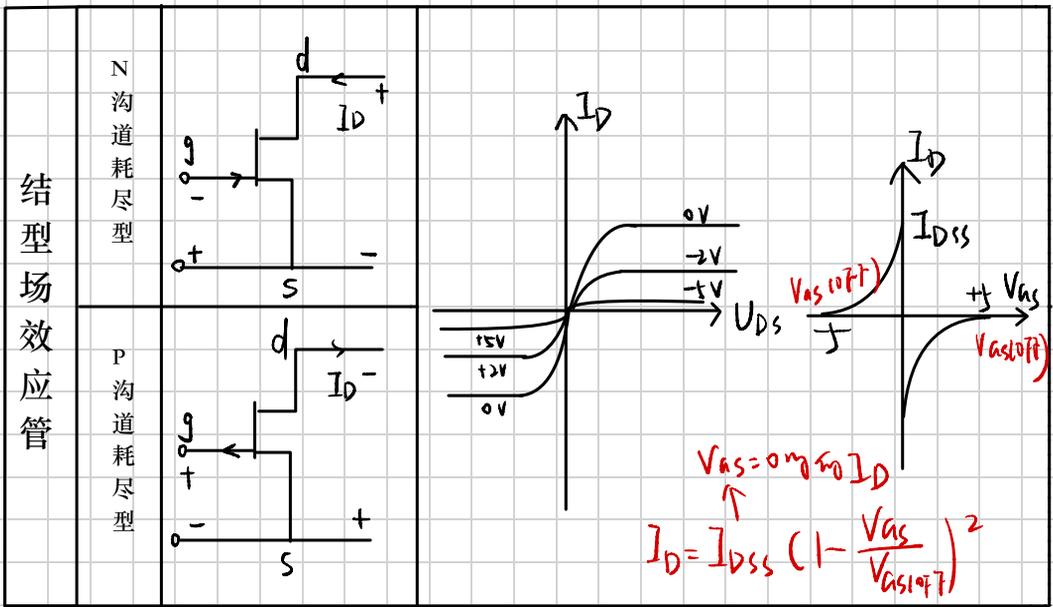


		NPN型	PNP型
BJT 晶体管	输入特性	<p>$V_{CE}=10V$ 集电极由正偏转为反偏</p>	
	输出特性	<p>$I_B=0.01mA$ $I_B=0.02mA$ $I_B=0.04mA$ $I_B=0.08mA$</p>	

		N 沟道增强型	P 沟道增强型	N 沟道耗尽型	P 沟道耗尽型
绝缘栅场效应管	电路符号				
	I_D vs V_{DS} graph				
	Equation	$I_D = I_{D0} \left(\frac{V_{GS}}{V_T} - 1 \right)^2$ <p>I_{D0} 为 $V_{GS}=2V_T$ 时的饱和电流</p>			$I_D = I_{DSS} \left(1 - \frac{V_{GS}}{V_P} \right)^2$ <p>极电压 $V_{GS}=0$ 时的漏极电流</p>
	Other parameters			<p>$V_{GS(0)}$ (VP) I_{DSS} $V_{GS(0)}$ (VP)</p>	



耗尽型结论: $i_D = I_{DSS} \left(1 - \frac{V_{GS}}{V_P}\right)^2$

$$g_m = \frac{\partial i_D}{\partial V_{GS}} \Big|_Q = -\frac{2I_{DSS}}{V_P} \left(1 - \frac{V_{GSQ}}{V_P}\right) = -\frac{2}{V_P} \sqrt{I_{DQ} I_{DSS}}$$

增强型结论: $i_D = I_{D0} \left(\frac{V_{GS}}{V_T} - 1\right)^2$

$$g_m = \frac{\partial i_D}{\partial V_{GS}} \Big|_Q = \frac{2I_{D0}}{V_T} \left(\frac{V_{GSQ}}{V_T} - 1\right) = \frac{2}{V_T} \sqrt{I_{DQ} I_{DQ}}$$