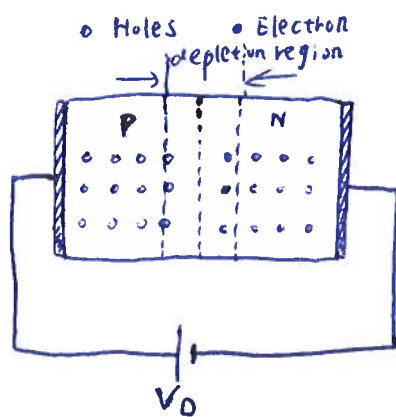


Blackboard Notes for Lecture - 1

slide 9:



diffusion movement will result in internal electric field to prevent holes diffusion from P region to N region with applied external voltage. drift movement happens, it drives Holes movement from P region towards N region.

Therefore, when $V_D > 0$, ~~depletion~~ ^{the} depletion region is narrow, the PN junction is ON,

when $V_D < 0$, the depletion region is thick, the PN junction is off.

slide 12:

No, since the depletion region is quite wide in PN diode,

while it is quite thin in NPN transistor (Base region is only

$1 \sim 2 \mu\text{m}$)

slide 18:

When V_{CE} increases, the curve will shift towards right direction.

Reason: When V_{CE} increases, the collector lead will collect more electrons, that means more electrons will flow through Emitter region to collector region, to keep Base current (i_B). more V_{BE} is needed to make electrons flow toward Base region.