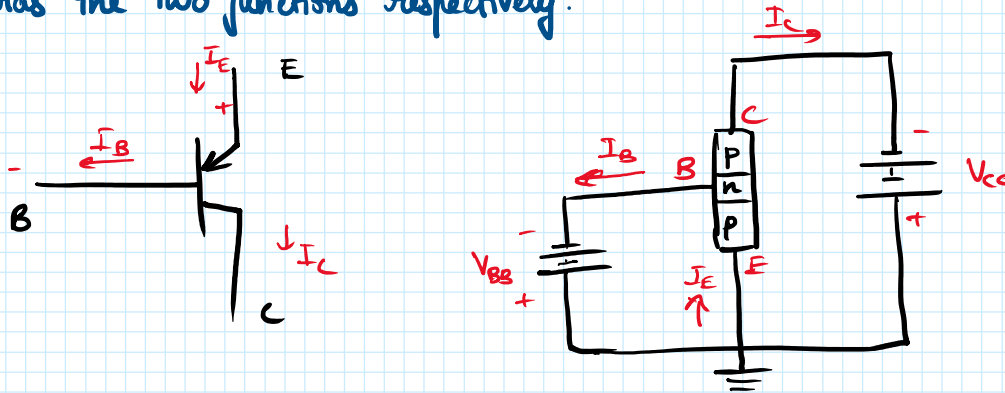


## 7. CE Configuration

27 September 2023 11:35

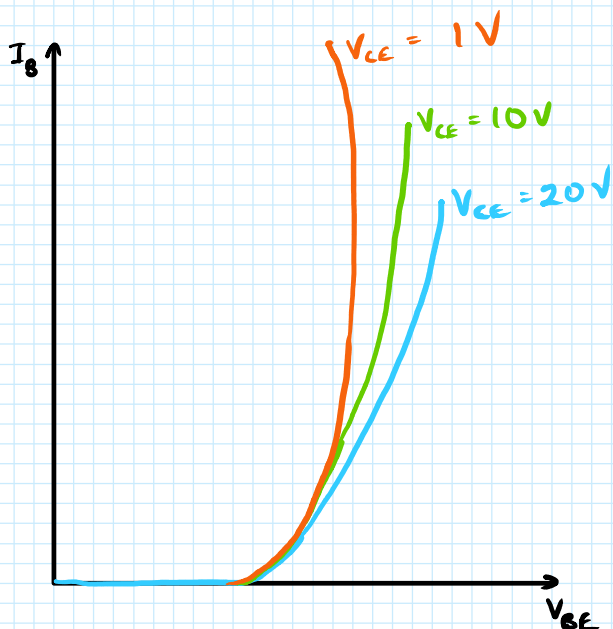
### COMMON EMITTER CONFIGURATION

- Arrow indicates direction of  $I_E$
- The NPN BJT requires two voltage sources  $V_{BE}$  or  $V_{BB}$ , and  $V_{CE}$  or  $V_{CC}$  to bias the two junctions respectively.



- For device to operate in active region:  
one diode  $\rightarrow$  forward bias  
other  $\rightarrow$  reverse

### CE CONFIGURATION - INPUT CHARACTERISTICS



As output voltage  $V_{CE}$  increases, current  $I_B$  decreases.

Hence graph shifts to the right.

BWM

narrower base width  
(less chance of recombination)