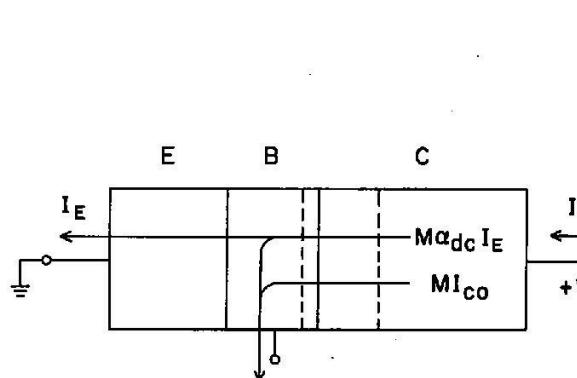
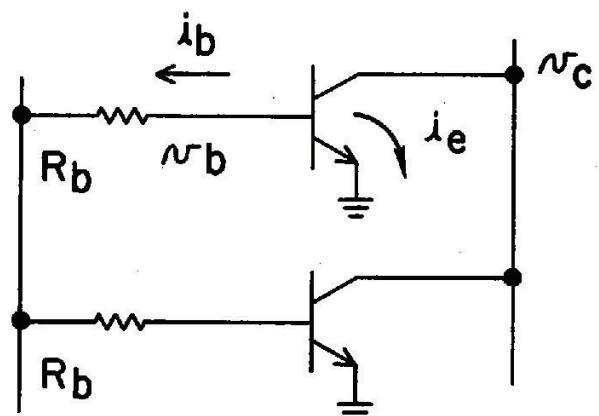


Figure 4
 V_c and I_c waveform for type B device



$$I_B = (M\alpha_{dc} - 1) I_E + M I_{co}$$

$$\text{Open base: } I_C = \frac{M I_{co}}{1 - M\alpha_{dc}}$$



$$i_B = (M\alpha - 1) i_e + \frac{m}{\beta_{dc}} \frac{I_C}{V_C} n_r c$$

$$\alpha = \alpha_{dc} + I_E \frac{d\alpha_{dc}}{dI_E}$$

Figure 5

Current flow in transistor element

Figure 6

Two transistor elements, showing incremental currents