| Terminology Differences between Pierret's and Hu's textbooks | | |
|---|---|---|
| | **Pierret** | **Hu** |
| Density of states | $g_c(E)$, $g_v(E)$ | $D_c(E)$, $D_v(E)$ |
| Built-in potential | $V_{bi}$ | $\Phi_{bi}$ |
| Semiconductor dielectric constant | $K_s \cdot \varepsilon_0$ | $\varepsilon_s$ |
| PN junction breakdown voltage | $V_{BR}$ | $V_B$ |
| BJT Emitter Efficiency | $\gamma$ | $\gamma_E$ |
| BJT Common Base Current Gain | $\alpha_{dc}$ | $\alpha_F$ |
| BJT Common Emitter Current Gain | $\beta_{dc}$ | $\beta_F$ |
| BJT EM model | $\alpha_F \cdot I_{F,0}$ or $\alpha_R \cdot I_{R,0}$ where $\alpha_F$ is equal to $\alpha_{dc}$ | $I_s$ |
| | $\alpha_R/(1-\alpha_R)$ | $\beta_R$ |
| MOS gate oxide capacitance | $C_o$ or $C_O/A_G$ | $C_{ox}$ |
| MOS gate oxide thickness | $x_o$ | $T_{ox}$ |
| MOS inversion charge concentration | $Q_N$ | $Q_{inv}$ |
| MOSFET channel width | $Z$ | $W$ |
| MOSFET Source/Drain junction depth | $r_j$ | $X_j$ |