

FIGURE 7.1

(a) The diode of Fig. 6.8a with an external voltage applied to the terminals; (b) the possible contributions to the effective nonlinear resistance of a p - n diode like that in Fig. 7.1a; (c) the variation in the electrostatic potential through the structure with a negative applied bias (i.e., $v_{AB} < 0$).

adapted from Microelectronic devices and circuits, Fonstad, 1994.

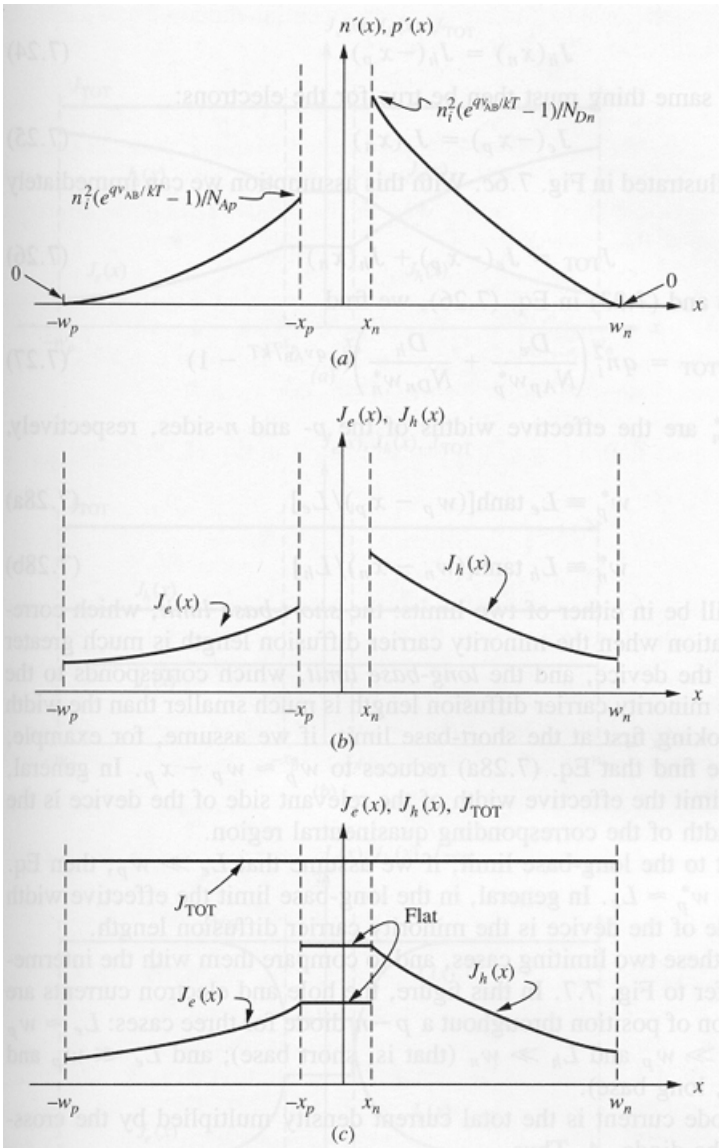


FIGURE 7.6 (a) Excess carrier populations in a forward-biased p - n junction diode; (b) the corresponding minority carrier diffusion current densities on either side of the junction; (c) the connection of the currents through the depletion region to obtain total current density.

adapted from Microelectronic devices and circuits, Fonstad, 1994.