

Fig. 13 Depletion-layer width and depletion-layer capacitance per unit area as a function of doping for one-sided abrupt junction in Si. The dashed line is for the case of zero-bias voltage.

M. Shur, Phys. of Semi. Dev., 1990, p101, Prentice-Hall,

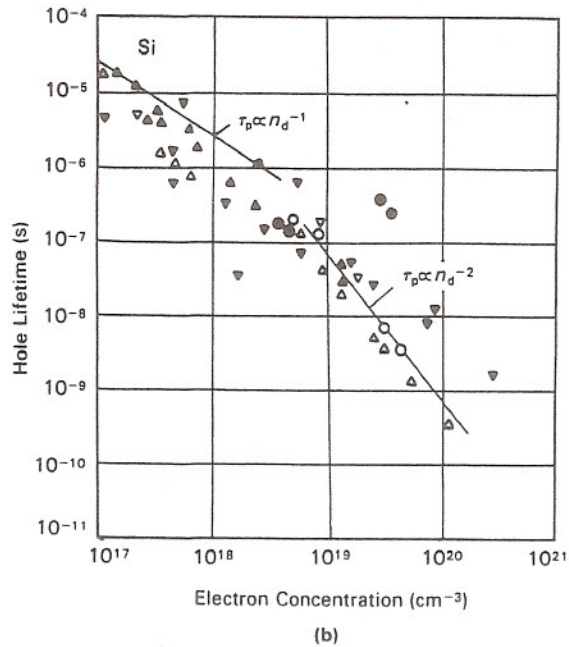


Fig. 1-12-5. (a) Electron lifetime in p -type silicon samples and (b) hole lifetime in n -type silicon samples vs. doping concentration (Reprinted with permission from M. S. Tyagi and R. van Overstraaten, *Solid State Electron.*, 26, p. 577 (1983) and J. G. Fossum, R. P. Mertens, D. S. Lee, and J. F. Nijs, *Solid State Electron.*, 26, p. 569 (1983) Pergamon Press p/c, respectively).

S.-M. Sze, Phys. of Semi. Dev. Wiley, 1981, p. 78.

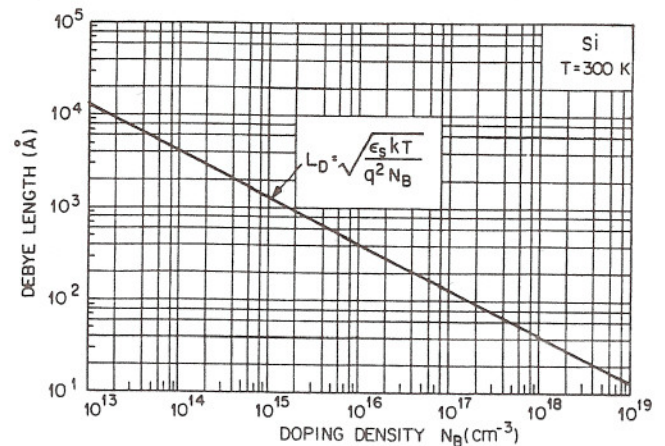


Fig. 12 Debye length in Si as a function of doping density.