ASSIGNMENT 4

Consider a rectangular bar of silicon uniformly doped with acceptor impurity. For an applied voltage of 5v and a current of 2mA is required. Current density J = 100A/. Find the required cross sectional area A, length L and doping concentration.

V = 5v

I = 2mA

J = 100A/

J = I/A

A = J\*I = 100 X 2X

= 0.2