

$$17-2) \quad n = 7.5 \times 10^{28} \text{ m}^{-3}, A = 4 \times 10^{-6} \text{ m}^2$$

$$I = 2.5 \text{ A}$$

$$I = nq v_d A \quad v_d = \frac{I}{nqA} = \frac{2.5 \text{ A}}{7.5 \times 10^{28} \text{ m}^{-3} \cdot e \cdot 4 \times 10^{-6} \text{ m}^2}$$

$$v_d = 5.21 \times 10^{-5} \text{ m/s}$$