Kittel (8th Edition). Chapter 20. Problem 2.
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$E_v = 1\,eV, T = 300K$

$$\frac{n}{N} = \frac{1}{1 + e^{E_v / k_B T}}$$

$$= \frac{1}{1 + e^{1/(0.086 \times 10^{-3} \times 300)}}$$

$$= \underline{\underline{1.469 \times 10^{-17}}}$$

With $N \approx 1.25 \times 10^{29}$ atoms/m^3 (assumuing cubic structure with 2 angstrom lattice parameter)

$n \approx 1.469 \times 10^{13} \times 1.25 \times 10^{29} = 1.84 \times 10^{12}\,m^{-3}$ or 1.84×10^{6} cm^{-3}