

- 16** A metal wire of cross sectional area 1.0 mm^2 has a conducting electron density of $6.0 \times 10^{28} \text{ m}^{-3}$. If the wire is carrying 1.0 A of current, what is the approximate average drift speed of the conducting electrons along the wire?

A 1.0 cm s^{-1} **B** 1.0 mm s^{-1} **C** 0.10 mm s^{-1} **D** 0.010 mm s^{-1}