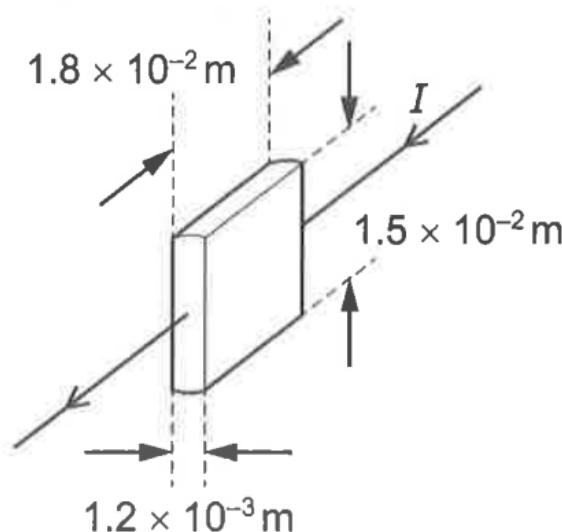


21 A current of 40 mA passes through a slice of semi-conducting material of dimensions as shown.



The slice dissipates 400 mW of heat energy.

What is the resistivity of the semiconductor under these conditions?

- A 0.25  $\Omega \text{m}$
- B 0.36  $\Omega \text{m}$
- C 56  $\Omega \text{m}$
- D 380  $\Omega \text{m}$

22 Six cells are used to make a battery. They are arranged in two parallel branches, each containing