

19 A semiconductor diode with the forward characteristic shown in Fig. 19.1 is connected in series with a variable, low voltage d.c. power supply, a meter of negligible internal resistance and a  $50\ \Omega$  resistor as shown in Fig. 19.2.

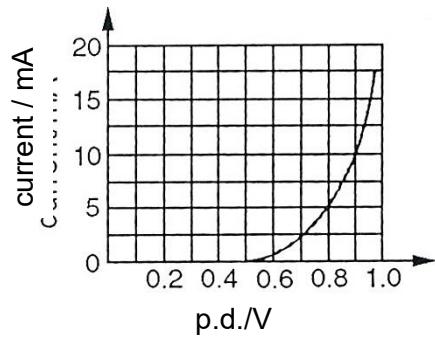


Fig. 19.1

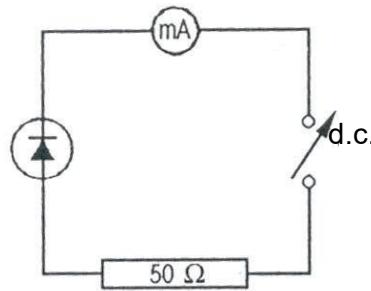


Fig. 19.2

What is the potential difference across the supply when the meter reads 5 mA?

- A** 0.25 V
- B** 0.75 V
- C** 1.05 V
- D** 1.25 V