

22 A variable resistor dissipates a certain power when a steady current I flows through it. The resistance had to be halved to obtain the same power dissipation in the resistor when a sinusoidal alternating current is used with a diode in series with the resistor in the circuit.

What is the peak value of the alternating current?

A I

B $1.4 I$

C $2 I$

D $2.8 I$