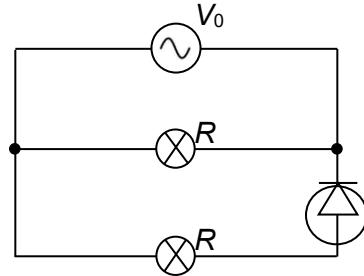


28

An alternating current supply of negligible internal resistance is connected to two identical bulbs and an ideal diode as shown.

The resistance of each bulb is R and the peak voltage of the a.c. supply is V_0 .



Which of the following is the average power dissipated in the circuit?

A

$$\frac{3V_0^2}{4R}$$

B

$$\frac{3V_0^2}{2R}$$

C

$$\frac{3V_0^2}{\sqrt{2}R}$$

D

$$\frac{3V_0^2}{R}$$

