

- 27** A sinusoidal current of peak value  $I_o$  is passed through a resistor  $R$  with a diode connected in series with it.

What is the average rate of heat dissipated in  $R$ ?

**A**  $0.25 I_o^2 R$

**B**  $0.50 I_o^2 R$

**C**  $0.71 I_o^2 R$

**D**  $I_o^2 R$