32. We use Eq. 32-38:

$$i_d = \varepsilon_0 A \frac{dE}{dt} \ .$$

Note that, in this situation, A is the area over which a changing electric field is present. In this case $r > R$, so $A = \pi R^2$. Thus,

$$\frac{dE}{dt} = \frac{i_d}{\varepsilon_0 A} = \frac{i_d}{\varepsilon_0 \pi R^2} = \frac{2.0\,\mathrm{A}}{\pi \left(8.85 \times 10^{-12}\,\frac{\mathrm{C}^2}{\mathrm{N\cdot m^2}}\right)(0.10\,\mathrm{m})^2} = 7.2 \times 10^{12}\ \frac{\mathrm{V}}{\mathrm{m\cdot s}} \ .$$