

Special Problem 3.3-22

The circuit below includes one **small-signal** voltage source $v_s(t)$.

The inductor and both capacitors are **unfathomably large**.

I have performed a **DC analysis** of this circuit (so you **don't** have to!), and have determined that the junction diode is forward biased, with bias current $I_D = 1.0 \text{ mA}$.

Now, you perform the **small-signal analysis**, and:

1. Draw precisely the **small-signal circuit**.
2. Determine (in terms of v_s), the **small-signal voltage across** and the **small-signal current through the junction diode**.

