

Special Problem 3.3-8

The voltage source on the **left** side of the circuit below produces a **d.c. voltage** $V_s=5.7$ V.

The voltage source on the **right** side of the circuit below produces a **small a.c. signal** $v_s(t)$.

The junction diode has an ideality factor of $n = 1.6$

Determine the **small-signal voltage** across the diode, in terms of small-signal voltage source $v_s(t)$.

