**Special Problem 3.3 - 12**

I have constructed a **piece-wise linear** (PWL) model to **approximate** a junction diode.

This PWL model uses a resistor of \( r_D = 0.05 \, \text{K} \Omega \).

Using this **model** (and **only** the model), I have determined that the voltage across a junction diode will be approximately 0.69 V when the current through the junction diode is 10.0 mA.

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Use my PWL **model** to analyze the circuit below, determining the **approximate** voltage across the junction diode and the approximate current through it.