1. Using the data from the N Channel JFET supplied, determine the value of the dominant SPICE parameters, $\beta_o$, $V_{TO}$, and $\lambda$.

2. Design a JFET current source having a value of 2 mA.

3. Verify the design with a SPICE simulation. Perform both a DC operating point and parameter sweep of the resistor $R_S$. Use a log sweep of $R_S$ from 1 $\Omega$ to 10 k$\Omega$. Compare the results of the DC operating point and the parametric sweep.