I found these references on the net. The following is extracted from there… I hope it is correct.

http://www.eie.polyu.edu.hk/~ensurya/lect_notes/Lect_note.htm
http://wwwinfo.cern.ch/ce/newsletter/issue21/cse21_noisePSpice.pdf

The spice model for the current noise density in a diode is:

$$I_d^{\,2} = \frac{KF(I_{dc})^{AF}}{f} + 2qI_{dc}$$
$$q = 1.602 \cdot 10^{-19}[\mathrm{C}]$$

The first term is flicker noise, and the second shot noise, KF and AF are coefficients you insert into the .model directive for the diode.

For high frequencies, the shot noise dominates, so the dc-current is

$$f = \text{large} \Rightarrow I_s^{\,2} \approx 2qI_{dc} \Leftrightarrow I_{dc} = \frac{I_s^{\,2}}{2q} \text{ where } I_s = \text{shot noise density } \left[\mathrm{A}/\sqrt{\mathrm{Hz}}\right]$$

From the datasheet we can also get the corner frequency and the noise density at that frequency:

$$I_c^{\,2} = \frac{KF(I_{dc})^{AF}}{f_c} + 2qI_{dc}$$

where

I_c = corner frequency noise density

f_c = corner frequency

It is not possible to solve for AF (I tried it, and basically got AF-AF = 0).
Just set AF =1. KF is then given by

$$I_c^{\,2} = \frac{KF \cdot I_{dc}}{f_c} + 2qI_{dc}$$
$$KF = \frac{I_c^{\,2} f_c - 2qI_{dc}}{I_{dc}}$$

The data sheet for INA114 does not specify the corner frequency and the current density at that point, so you will have to experiment.
Instead, I will model LT1167:

$$f_c = 30[\mathrm{Hz}]$$
$$I_c = 65 \cdot 10^{-15}\left[\mathrm{A}/\sqrt{\mathrm{Hz}}\right]$$
$$I_s = 55 \cdot 10^{-15}\left[\mathrm{A}/\sqrt{\mathrm{Hz}}\right]$$

Result: $I_{dc} = 9.44 \cdot 10^{-9}[\mathrm{A}]$ and $KF = 1.31 \cdot 10^{-17}$.