Supporting information

Printable Electronics-Compatible Silicon Nanoparticles Prepared by the Facile Decomposition of SiS$_2$ and its Application in a back-to-back *Schottky* Diode

Priyesh V. More$^{a,b}$, Sunho Jeong$^b$, Ji-yoon Lee$^b$, Yeong-Hui Seo$^b$, Beyong-Hwan Ryu$^{a,b}$ and Youngmin Choi$^{a,b}$

S.I. Figure 1: Conductivity of silicon nanoparticles films at various temperatures. The conductivity was measured under constant applied bias field.
S.I. Figure 2: Plots of ln (I-V) of a) the suspension and b) the ink sample at various temperatures. The $m$ value was obtained by calculating the slope of the linear portion from the plot.

S.I. Figure 3: Plots of ln (I) vs. V of a) the suspension and b) ink sample at various temperatures. The value of $n$ can be calculated directly from the slope of the plot ln I-V, while $I_0$ is the intercept of ln (I).
S.I. Figure 4: Plots of ln (U/T²) vs. 1000/T for a) the suspension and b) the ink sample. The value of A* (Richardson’s constant) was determined from the intercept at the ordinate of the plot of ln (U/T²) vs. 1000/T.