

Converting Resistivity to Carrier Concentration

Spreading Resistance Analysis (SRA) determines resistivity depth profiles in silicon and germanium.

To calculate carrier concentration values for silicon, we use mobility values derived from Thurber, Mattis, Liu, and Filliben, National Bureau of Standards Special Publication 400-64, *The Relationship Between Resistivity and Dopant Density for Phosphorus- and Boron-Doped Silicon* (May 1981), Table 10, Page 34 and Table 14, Page 40.

To calculate germanium carrier concentration values, we use carrier mobility values derived from D. B. Cuttriss, Bell System Technical Journal (March 1961), Page 509.

We hope you find the following chart useful. To obtain numerical values, go to <http://www.solecon.com/sra/rho2ccal.htm>.

