A Study on Estimation of Current Distribution of the Packaged LSI Using the Green Function

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Abstract

In this study, we focused on high frequency currents on LSI. We estimated the high-frequency current distribution on a packaged LSI using the Green’s Function method, in which the distribution of current is estimated by a two-dimensional magnetic field as an inverse problem. We used a packaged IC mounted on the PCB and estimated the current distribution on the packaged IC. As a result, we could observe the high-frequency current distribution on the packaged IC and the in- and outflow currents of the packaged IC as emission sources.

Key Words: Current Distribution, Green Function, Magnetic Field