

Development of High-efficiency bus-bar

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Abstract

The bus-bar is used in various electronic parts. Consequently, the efficiency of a bus-bar is the problem that is very important from the viewpoint of energy saving.

The aim of this project is to develop a high efficiency bus-bar using the 3-D finite element method for the magnetic field analysis.

In this report, we clarify the importance of taking into account proximity effect and skin effect through the analysis of the high frequency bus-bar. In addition, we clarify the influence of various conditions on the efficiency of a bus-bar through the analysis of the model taking into account plating.

Keywords: bus-bar, proximity effect, skin effect, magnetic field analysis, plating,