●速報論文　「エレクトロニクス実装学会誌」7〔7〕635~638 (2004)

論文

プリント配線板用絶縁材料の空間電荷挙動と内部電界分布の観測

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Space Charge Behaviour and Internal Electric Field Distribution of Printed Circuit Board Insulations

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Abstract

We observed the space charge behaviour and internal electric field distributions of various insulating materials used in printed circuit boards, and found that internal charges move in aramid/epoxy specimens under a dc electric field. The electric field near the surface of the specimen, therefore, was increased to more than twice the strength of the average applied field. The space charge profile was strongly influenced by the internal structure. Since the space charge profile affects the internal electric field distribution, the internal charge behaviour should be examined with respect to the design of the insulation of a printed circuit board.

Key Words: *Printed Circuit Board, Space Charge, Aramid Paper, Internal Electric Field*