

MODELING OF THE THERMAL CONDUCTIVITY OF OXIDIZED POROUS SILICON AND NON-OXIDE

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ABSTRACT. In this work, we have studied and modeled the thermal conductivity of porous silicon oxidized and unoxidized to improve the thermal performance of a porous silicon. We present an analytic solution which enables the prediction of the conductivity using a serial-parallel resistance based on the model and Vachon notch. Structure, the comparison between cases and the selection of the best template. The oxidation has been a good solution for the stabilization of the material. The results found are in agreement with those given by experience.

KEYWORDS: *The porous silicon, porosity, modeling, thermal conductivity, oxidation degree.*