

Title (en)  
ELECTRICAL MEASUREMENT OF THE THICKNESS OF A SEMICONDUCTOR LAYER

Title (de)  
ELEKTRISCHE MESSUNG DER DICKE EINER HALBLEITERSCHICHT

Title (fr)  
MESURE ELECTRIQUE DE L'EPAISSEUR D'UNE COUCHE DE SEMICONDUCTEUR

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Application  
**EP 05814654 A 20051116**

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Abstract (en)  
[origin: WO2006053543A1] A method for the electrical measurement of the thickness of semiconductor layers (10, 11, 12) is disclosed. Active layers on SOI wafers, EPI layers with inverse conductor types and membrane thickness can be measured by use of a test structure which can routinely be measured during a production process. The embodiment of the test structure (Al to Fl) is preferably annular, such that a high degree of symmetry is achieved on propagation of the measuring current and such that no interactions occur with surrounding structures. The diameter of the arrangement can be matched to the corresponding thickness range of the semiconductor layer for measurement. The arrangement can be measured using conventional U-I parameter test systems, conventionally applied in semiconductor production. The determination of layer thickness is achieved by means of two sequential quadrupole measurements at six contact points.

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