

Title (en)  
SIC-PN POWER DIODE

Title (de)  
SIC-PN-LEISTUNGSDIODE

Title (fr)  
DIODE DE PUISSANCE SIC-PN

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Application  
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Abstract (en)  
[origin: WO2007036456A2] The invention relates to an integrated vertical SiC-PN power diode comprising a highly doped SiC semiconductor body of a first conductivity type, a low-doped drift zone of said first conductivity type, arranged above the semiconductor body on the emitter side, an emitter zone of a second conductivity type, applied to the drift zone, and at least one thin intermediate layer of said first conductivity type, said intermediate layer being arranged inside the drift zone, comprising a higher doping concentration than the drift zone, and dividing the drift zone into at least one first anode-side drift zone layer and at least one second cathode-side drift zone layer. The invention also relates to a circuit arrangement comprising such SiC-PN power diodes.

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