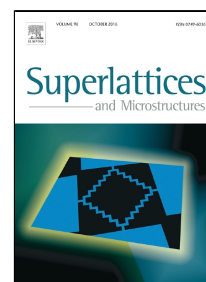


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A novel 4H-SiC MESFET with serpentine channel for high power and high frequency applications

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- A novel 4H-SiC MESFET with serpentine channel for high power RF application is proposed.
- When the $H_{sd}=0.10\mu\text{m}$, the I_d of the SC structure is about 21.5% larger than that of the DR structure.
- The SC-MESFET has the advantages of high breakdown voltage that is increased from 90V to 132V.
- The breakdown point has changed from the gate corner to the drain edge when the H_{sd} reaches to $0.10\mu\text{m}$ or more.
- With the serpentine channel, the gate-source capacitance of SC structure is reduced by 15.7% compared with DR structure.

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