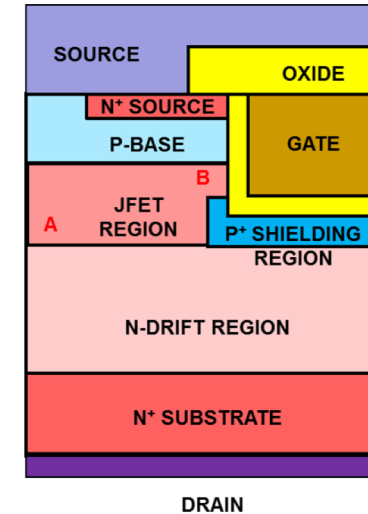


Project Title: 1.2kV SiC Trench Gate Power MOSFETs with P+ at trench bottom

Objectives: Create SiC Trench-Gate Power MOSFET Foundry Process at X-fab

Major Milestones: Demonstration of 1.2 kV SiC Trench Gate Power MOSFETs

Deliverables: Device characteristics: including Specific On-Resistance, Breakdown Voltage, & Capacitances.



SOPO Task No.: BP4-2.28
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WBG Technology Impact

1. Open domain manufacturing process for 1.2kV SiC Trench Gate MOSFETs
2. Market segments impacted: EV/HEV inverter, PV Inverter, SMPS, etc
3. Timeframe for commercialization: BP-5
4. The outcome of this project will serve as the baseline process for PA members to design their own products and manufacture them at X-Fab.

More WBG Impact and Additional impacts

1. Increase market penetration for SiC power MOSFETs.
2. Workforce Development : 1 graduate student and 2 undergraduate students are involved.
3. TRL level

At project start: TRL6

Expected at project completion: TRL7