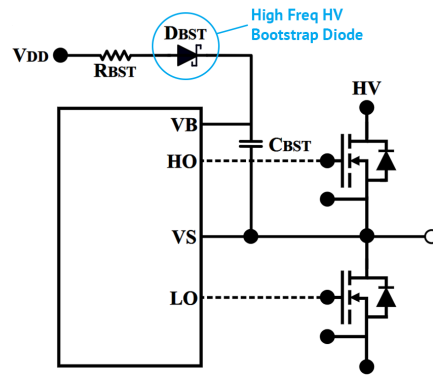
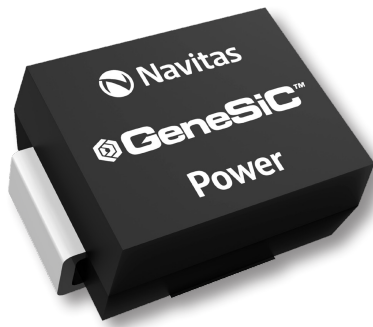


MHz Switching Capable 650 V & 1200 V SiC MPS™ Diodes in SMB Package

Navitas' latest 4th-generation Silicon Carbide (SiC) merged-PiN-Schottky (MPS™) diodes in an optimized low-inductance SMB (DO-214AA) package, rated from 650 V to 1200 V, set an industry-first benchmark for enabling bootstrap-diode based gate drive designs for systems designed to operate at switching frequencies from a few 100kHz to up to several MHz.



Qualified to AEC-Q101 and JEDEC standards, including HV-H3TRB, and validated in mass production, the MPS™ SiC diodes guarantee robust operation in automotive and industrial environments.

The Only Viable Solution for High-Frequency Bootstrap Applications

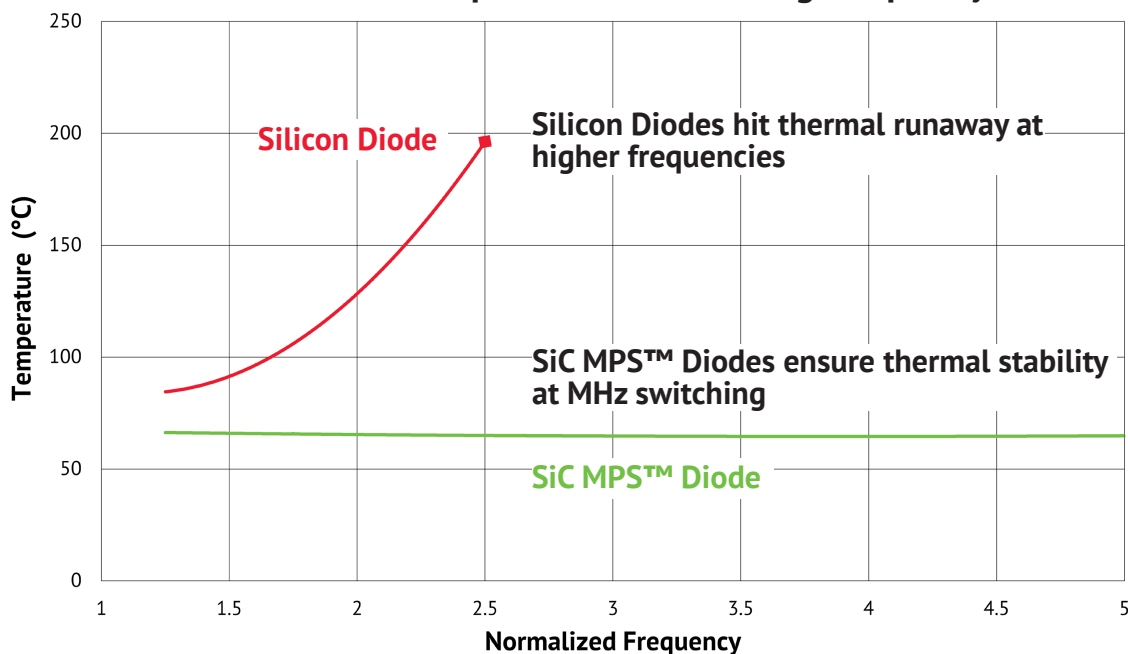
Ultra-Low Junction Capacitance and No Reverse & Forward Recovery:

Navitas' SiC SMB diodes feature ultra-low capacitance and no reverse or forward recovery, enabling fast bootstrap charging and reliable high-frequency gate drive.

Superior Thermal Performance:

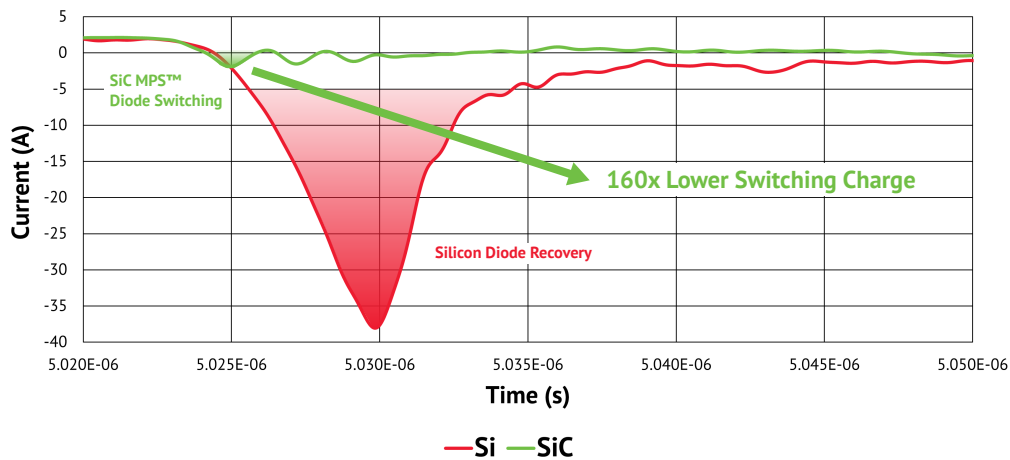
With negligible switching losses and no recovery losses, Navitas' SiC SMB diodes reduce heat generation, enabling high-frequency operation with simplified thermal design.

Diode Case Temperature vs Switching Frequency

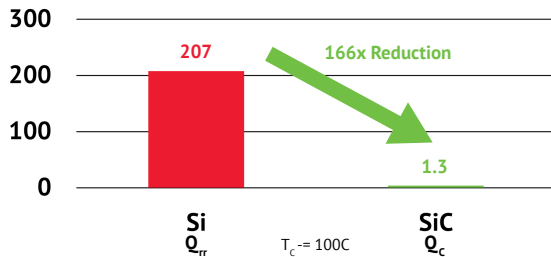


Ultra-Fast Switching Characteristics – SiC SMB vs Silicon SMB

SiC vs Si Switching Performance at 400V/2A and 100°C

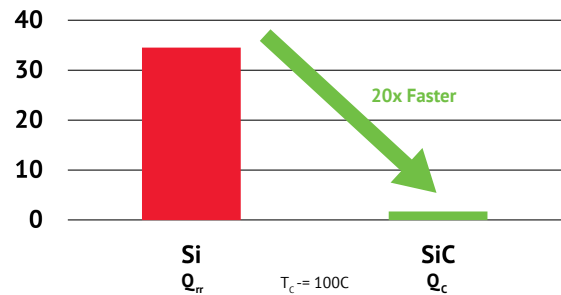


Switching Charge at 100°C
(Q_{rr} for Si and Q_c for SiC)



>160x lower switching charge!

Switching Time at 100°C



20x faster switching time!

Negligible Q_c , no Q_{rr} and I_{rr} , and extremely low switching time in SiC SMB diodes eliminate recovery losses, significantly improving system design complexity.

Features

- Optimized for MHz-range operation
- Ultra-low inductance, wire-bond free, compact surface mount package
- No reverse recovery and forward recovery
- Ultra-low junction capacitance (C_j)
- AEC-Q101 and JEDEC qualified

Applications

- AI Data Center power supplies (PSUs)
- xEV on-board chargers (OBC)
- Solar & energy storage systems (ESS)
- Consumer & telecom power supplies
- Medical, aerospace, & defense
- Other industrial applications

Portfolio

Part #	Voltage (V)	Current (A)	Package
GB01SLT06-214	650	1	SMB / DO-214AA
GB01SLT12-214	1200	1	
GB02SLT12-214		2	