Energy Efficiency Through Innovation

GeneSiC is the provider of choice for power semiconductor products. Our mission is to deliver the best customer driven designs possible, with leading performance and quality while maintaining a highly competitive price. Our targeted markets include: Aerospace, Alternative Energy, Commercial, Industrial, and Military. Through our technical leadership, you can be sure that GeneSiC will meet and exceed your power semiconductor needs.

PRODUCTS

- SiC MOSFETs
  Up to 15 kV
- SiC IGBTs
  Up to 20 kV
- SiC Anode Switched Thyristors
  Up to 20 kV
- SiC Pulsed Power Thyristors
  Up to 20 kV
- SiC Junction Transistors
  Up to 10 kV
- SiC Schottky Diodes
  Up to 10 kV
- SiC PIN Diodes
  Up to 20 kV
- SiC Power Modules

CONTACT US

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COMPANY HISTORY

GeneSiC Semiconductor, founded in 2004, develops innovative Silicon Carbide (SiC) based, high voltage semiconductor devices which can be universally used in precise processing of electrical energy.

- Several R&D grants from DOE under BAA and SBIR contracts
- Several contracts from DARPA, Navy, Army and DOC towards development of revolutionary technology

Our technology enables the development of compact, lightweight, efficient power electronic systems that are ideally suited for electric ships, solid state power subsystems, ultra-high voltage systems, power conversion systems and smart grids.

Become Market Leader in High Quality, Cost-Effective SiC Devices!

- Focused on exploiting superior properties of SiC in high temperature, radiation, and utility grid applications
- Cost effective integration of internal capabilities and outsourcing strategies
- Aim to capture high volume SiC device opportunities and become the dominant supplier of COTS SiC-based semiconductor products

CAPABILITIES

- **SiC Device Design and Concepts**
  - Leading Expertise
  - Toolsets include 2D Device Simulations, Layout

- **Device Fabrication**
  - World's leading experts in SiC fabrication
  - State-of-the-art foundry for standard processes

- **Testing & Packaging**
  - In-house testing of on-wafer and packaged parts
  - Packaging capability in-house as well as with volume partners

APPLICATIONS

- Aerospace and Defense
- Alternative Energy
- Automotive
- Industrial
- Oil Drilling
- Smart Grid
- Transportation

MARKETS AND CUSTOMERS

- Commercial power semiconductor products to a worldwide market
- Military-qualified and COTS (Commercial Off the Shelf) products for insertion into fielded systems
- Prime government contractors that can benefit from high performance Silicon Carbide (SiC) power devices into demonstrating high-generation systems, including government R&D programs

CONTRACT VEHICLES

- 1 Prime BAA Contract from ARPA-E
- 7 BAA Subcontracts: Northrop Grumman, Lockhead Martin, General Electric, Delphi Automotive, Westinghouse Electric
- 17 SBIR Phase I
- 11 SBIR Phase II
- Received Funding from DoE, DARPA, NSWC, ONR, SPAWAR, ARDEC, ARL, AFRL, DoC, DTRA, DHS, NASA

7 Issued Patents on Industry-Leading SiC Transistors!

4 Pending Patents on SiC Power Devices!