



## 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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**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.*



## 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, Lockheed 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!**