

Company profile

Ascatron is developing the next generation Silicon Carbide (SiC) power semiconductors using the company's proprietary 3DSiC® material technology with a quality and performance unattainable through current methods.

Ascatron is a Sweden based scale-up company with background in producing advanced SiC epi material for global customers since 2011. We have recently transformed from a service provider to a device product company with semi-fab-less business model. Our target is to be a highly trusted and innovative supplier of SiC semiconductors for medium and high voltage power electronics in industry, automotive and renewable energy. Our vision is to provide the full power of SiC for maximum performance and sustainable use of electricity.

Technology

Ascatron's unique material technology (3DSiC®) makes it possible to entirely use the potential of SiC to handle very high power with minimal losses, while maintaining the reliability on the same level as for Silicon devices.

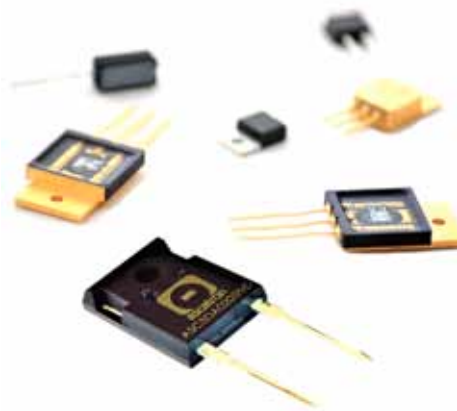
The main feature is a buried doped grid that sustains high voltage and reduces the electric field on the sensitive surface of the device. The implementation of the buried grid design is a result of the company's deep competence in SiC epitaxy.

The 3DSiC® technology makes it possible to lower the losses up to 30% compared to conventional SiC devices.

The 3DSiC® technology enables a modular design of the product line. Each device is divided in a high voltage module related to the desired voltage class, and a low voltage part for each type of component. Combination of different modules gives a wide range of products and selections for customers.

Products

Ascatron has a very ambitious launch plan the coming years to diversify the product portfolio with both power diodes and power MOSFET's from 1200 V up to 10 kV. Our 3DSiC® devices can be adapted to specific customer requirements including alternative packaging solution and current rating. The devices are supplied as packaged discrete or bare dies.



Services

Ascatron produces advanced Silicon Carbide (SiC) epitaxy material with best in class uniformity. We also offer custom specific device fabrication for prototyping and small volume production.

Our many years of knowledge within SiC epitaxy and power devices, as well as our flexibility makes us a dedicated and reliable supplier of products and services within Silicon Carbide.