

Silicon-Carbide Schottky Diodes for Greater Efficiency of Electric Power Conversion Modules

Professor Sima Dimitrijević

Dr Jisheng Han

Alan Iacopi

Electric vehicles will go further. Solar panel inverters and wind generators will provide more energy. Everything from variable speed drive motors to switch mode power supplies for servers powering the internet can all benefit from reduced energy consumption.

Commercialisation requires better and lower cost products. The Queensland Microtechnology Facility, part of the Australian National Fabrication facility, is focused on the commercialisation and advanced manufacture of SiC devices that enables the next generation of efficient, smaller and lighter power modules.

The SiC device market forecasts: 29% CAGR with sales to exceed \$1.4B by 2023.

Griffith's significantly lower cost fabrication process aims to attract overseas industry, drive commercialisation, create further innovation, and add to Australia's knowledge based economy.