

香港綠色創新大獎

Hong Kong Green Innovations Awards 2019

金獎 Gold Award



創能動力科技有限公司 — 碳化硅二極管的大功率綠色能源應用
Alpha Power Solutions Limited – Silicon Carbide (SiC) Diodes for
High Power Green-energy Applications



在高功率轉換器的應用中，與傳統硅二極體相比，碳化硅二極體可降低三成的能源損耗。憑藉專利設計及先進的專有製造技術，創能動力科技有限公司成功地將項目商業化，更寄望能夠應用於更廣泛的用途，為全球減碳作出貢獻。

Silicon carbide diodes can reduce 30% of energy switching loss when compared to conventional silicon diodes in high power converter applications. With the patented design and advanced proprietary manufacturing technologies, Alpha Power Solutions Limited has successfully commercialised this project and hopes to adopt it to a wider use for contributing to worldwide carbon reduction.

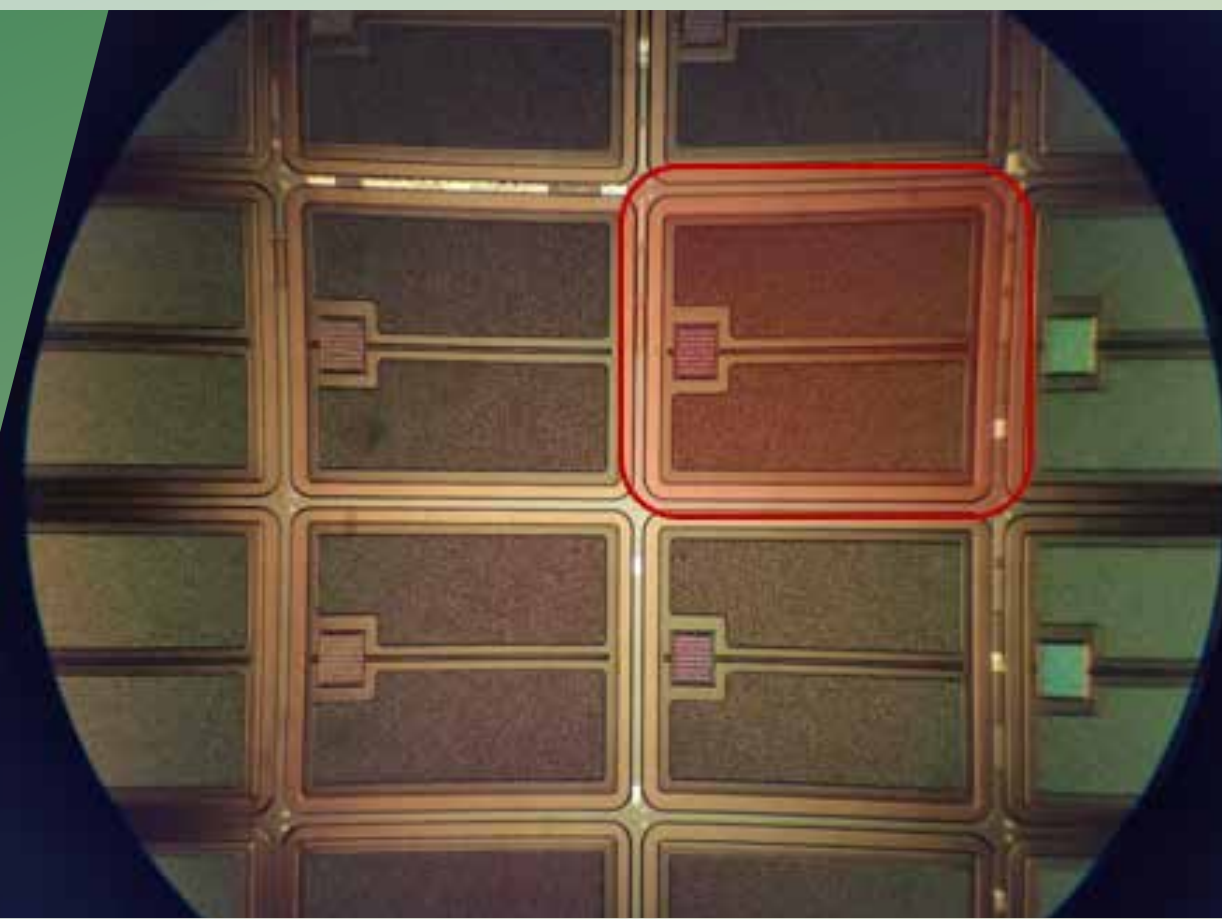


憑著碳化硅卓越的開關性能，較傳統硅二極管，功率損耗能夠降低達**30%**。

With the superior switching capability of silicon carbide, the power loss can be reduced by 30% when compared to conventional silicon diodes.

晶片面積極細，有助在量產時有效減低所需物料和產生的廢物，生產成本亦能降低**30%**。

The ultra small size of the chip enables significant reduction in material use and waste generation in mass production, as well as production cost by 30%.



可以在電動汽車行業中廣泛用作電源管理系統的逆變器組件。公司亦正就項目的潛在應用進行進一步研究，例如太陽能場逆變器、高速列車系統、配電系統、電流轉換器等。

Being able to be widely adopted in the electrical vehicles industry as a component in the inverter of the power management system. The project is also under further study for its potential applications such as solar farm inverters, high speed train systems, power distribution systems, converters, etc.

