

1200-V SiC MOSFETs Come In Top-Side-Cooled Package

[Microchip's](#) mSiC 1200-V MOSFET family is now available in the QDPAK top-side cooled surface-mount package. The family includes seven devices ranging from 20 mΩ to 80 mΩ $R_{DS(ON)}$, enabling designers to scale power levels while maintaining a common PCB footprint (see the figure). The QDPAK package provides a direct thermal path from the device to an external heatsink, reducing thermal stress on the PCB and enabling higher power density.

Combined with low parasitic inductance and improved switching performance, the family helps customers improve efficiency, simplify manufacturing, and accelerate time to market. Available in both industrial and AEC-Q101-qualified options, these devices are well suited for demanding high-power applications.

According to the vendor, the QDPAK top-side cooled package delivers improved thermal performance, lower parasitic inductance, higher power density and compatibility with an emerging industry-standard footprint, simplifying adoption and multi-source design strategies.

For more see the mSiC 1200-V MOSFET family [page](#).



Figure. SiC MOSFETs are used in medium- to high-voltage power systems and enable higher switching frequencies with improved efficiency, while reducing the system size and the need for redundancy. According to the vendor, the mSiC MOSFETs offer unrivaled ruggedness and performance with a wide breadth of solutions with a lower system cost, faster time to market and lower risk. The 1200-V devices in this family are now offered in the QDPAK package, enabling top-side cooling.