2.5 V Output DC/DC Power Modules

The 2.5 V 60 A PKL 4119 API and 2.5 V 50 A PKL 4119 PI from Ericsson Microelectronics have been designed to provide full power for any input voltage between 36 V to 75 V. The PKL 4000 family is a 60 A half-brick line of DC/DC power modules featuring 89% efficiency. They also feature power density at 52 W/in^3 at 2.5 V out.

The PKL 4000 series utilizes synchronous rectification, planar magnetics, and a special low resistivity PCB. Extensive thermal design keeps the output MOSFETs at less than 10&#176C above the baseplate temperature, contributing to the MTBF of 2.2 million hours. The PKL 4000 requires no series diode for parallel operation. This offers benefits in higher current applications, especially at voltages below 3 V.

The half-brick format has been enhanced with two additional output pins to handle the current capability. All other pin assignments are totally compatible, offering a straightforward route for upgrading existing board designs to take advantage of the new power levels delivered by the 2.4 &#215 2.4 &#215 0.5 in (61 &#215 61 &#215 12.5 mm) package.

The PKL 4000 series is designed for 48 V and 60 V distributed power applications, is short circuit proof, and includes built-in over-voltage, under-voltage and over-temperature protection. It also features soft start, remote turn-on, output adjustment, and remote sensing in addition to UL 1950 recognition and compliance with EN 60950.

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