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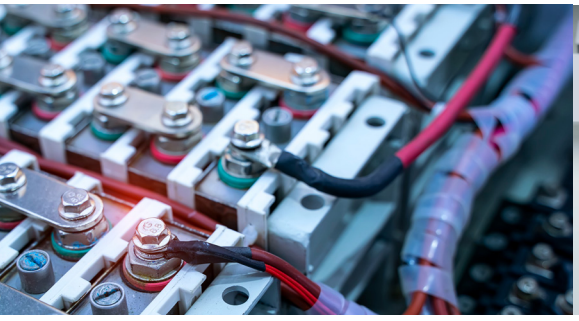


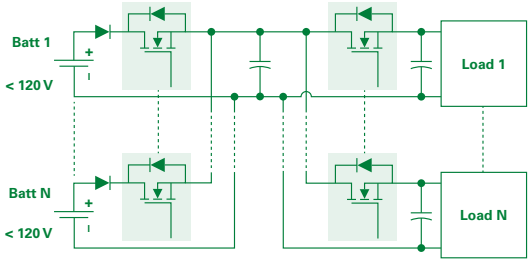
Low $R_{DS(on)}$, 400/500 A, 200 V Ultra Junction X4-Class MOSFETs

The latest addition to the Littelfuse Ultra Junction X4-Class MOSFET family portfolio, featuring one of the industry's lowest on-state resistances and highest nominal current ratings, marks a substantial leap forward in the design of low-voltage solutions within drives, power supplies, battery chargers, and load switches.

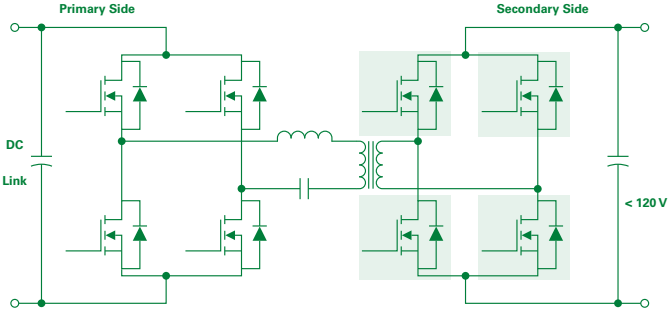
These 200 V X4-Class MOSFETs with $R_{DS(on)}$ ratings of 1.99 mΩ and 3 mΩ in SOT-227B (miniBLOC™) packages are positioned to revolutionize low-voltage applications with significant improvements in efficiency and power density.

Developed using a charged compensation principle and proprietory process, these 200 V X4-Class MOSFETs feature one of the best-in-class figures of merit, $R_{DS(on)}$ X Q_g and $R_{DS(on)}$ X $R_{th(j-c)}$ compared to their predecessors, the X3-Class devices. These benefits enable designers to address several design challenges with substantial performance advancements in various low-voltage applications.

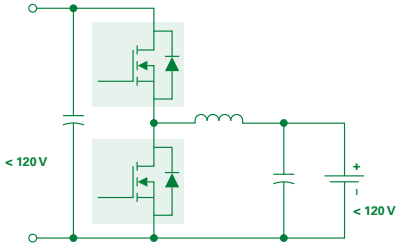
DC Load Switch / Battery/Load OR-ing

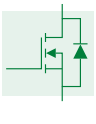


Synchronous Rectification in DC/DC LLC



DC/DC Buck-Boost





200 V X4-Class MOSFET

$R_{DS(on),max}$ [mΩ]	I_{D25} [A]	SOT-227B
1.99	500	IXTN500N20X4
3	340	IXTN400N20X4

Features

- Low on-state resistance
- High power dissipation capability
- Low junction-case thermal resistance
- High nominal current rating
- Low gate charge
- Isolated SOT-227B package with aluminium-nitride ceramic

Benefits

- Low conduction losses
- Minimized parallel connection effort with reduced part count
- Simplified driver design, minimal driver losses
- Simplified thermal design
- Compact design with increased power density
- Ease of assembly with rugged and stable mounting

Applications

- Battery Energy Storage Systems (BESS)
- DC load switch
- Battery chargers
- Battery formation
- Industrial power supplies
- Process power supplies

Scan the QR codes for detailed product information, datasheets, samples, and ordering

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