Product brief

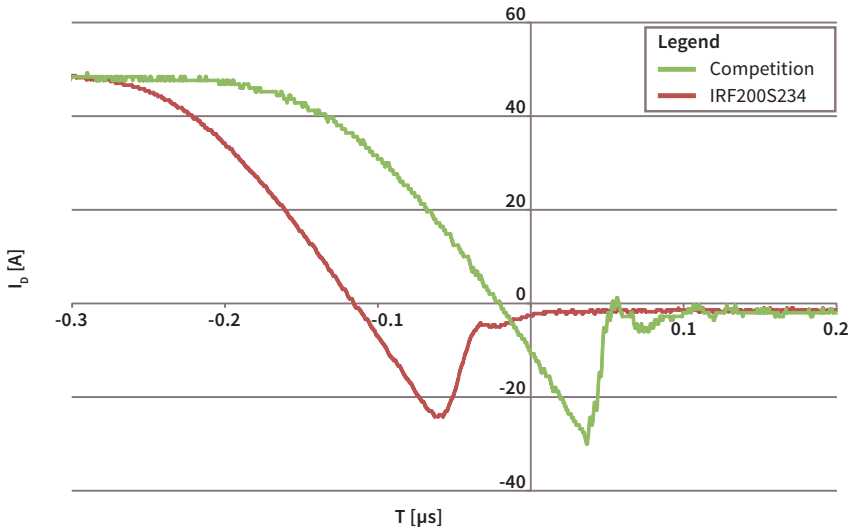
StrongIRFET™ 135–200 V family

Ideally suited for cost sensitive 72–144 V battery applications

Infineon introduces an extension to their successful StrongIRFET™ family of devices with a range of 135–200 V devices targeted for high performance, cost sensitive battery applications including light electric vehicles, industrial drives and consumer drives. Both, the 135 V and 200 V voltage nodes are available in through hole and surface mount packages to support a wide variety of customer needs.

The IRF200S234 is the latest benchmark product which has been optimized for low $R_{DS(on)}$, body diode softness, and cost making it the ideal solution for price sensitive 144 V battery applications. When compared to competitive devices, it offers a 12 percent improvement in Q_{rr} leading to lower switching losses plus the improvement in body diode softness (S), leads to reduced VDS overshoot and ringing. This equates to a more robust design and reduction in EMI.

MOSFET body diode reverse recovery



Key features and benefits

- Designed for industrial applications
- Enhanced soft body diode
- Gate, avalanche, and dynamic dV/dT ruggedness
- Fully characterized capacitance and avalanche SOA
- 175°C junction temperature rated
- Industry standard D²PAK 7pin, D²PAK and TO-220 packages

Applications

- Light electric vehicles (LEV)
  - Low speed electric vehicles (LSEV)
- Industrial drives
  - Forklift trucks
- Consumer drives
  - Power and gardening tools

www.infineon.com/powermosfet-120v-300v

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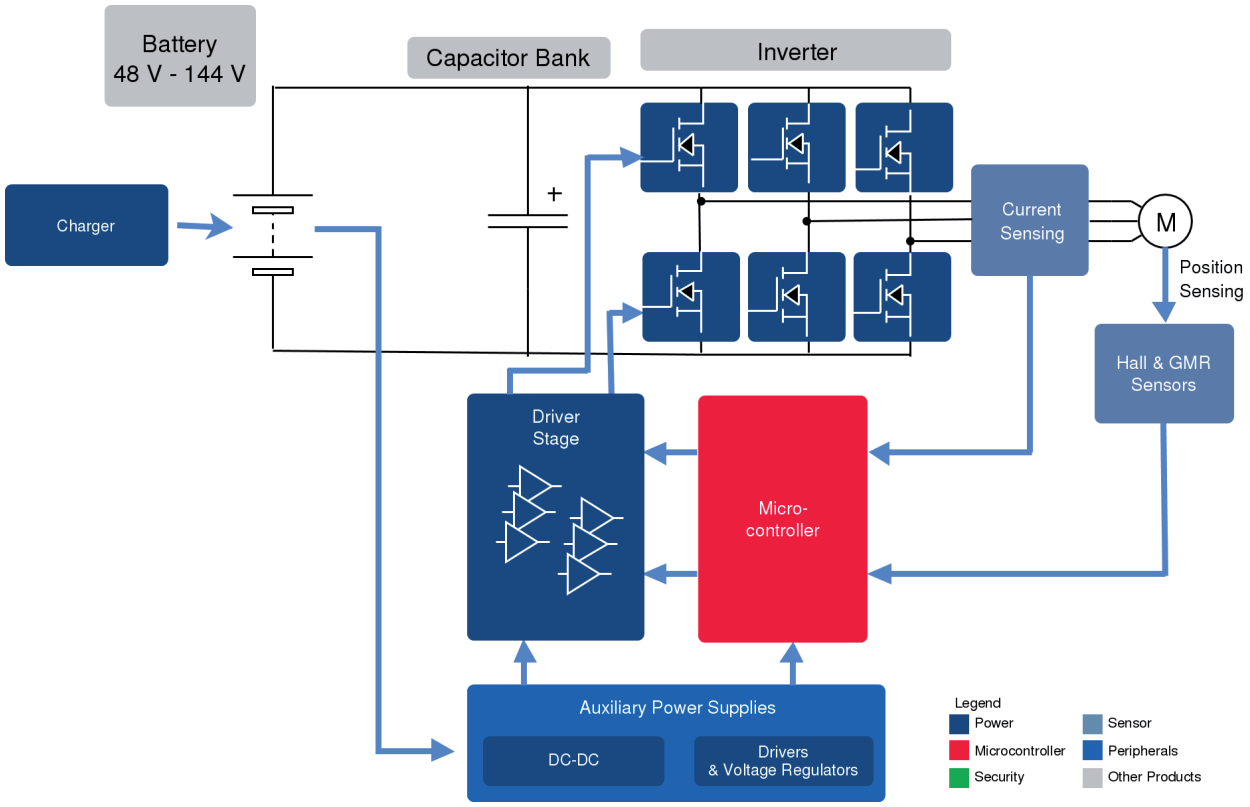
Product portfolio StrongIRFET™ 135–200 V family

Voltage [V]	Part number	$R_{DS(on)}$ max. [mΩ]	I_D [A]	Package
135	IRF135SA204	5.9	160	D^2PAK 7pin
	IRF135S203	8.4	129	D^2PAK
	IRF135B203	8.4	129	TO-220
200	IRF200S234	16.9	90	D^2PAK
	IRF200B211	170.0	12	TO-220

A typical light electric vehicle (LEV) application

The new 135 V-200 V StrongIRFET™ devices are used to drive a 3-phase brushless dc motor and are shown in the inverter block below. There can be anywhere from 6-18 MOSFETs within this stage depending on the power requirements of the motor.



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Additional information
For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

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