



Product brief

100 V to 300 V StrongIRFET™ in TO-247

A package optimized for greater than 1 kVA, high-power applications

Infineon's new 100 V to 300 V TO-247 StrongIRFET™ family of devices complements an already successful line of products targeted at high-power applications including Uninterruptible Power Supplies (UPS), solar power inverters, class D audio amplifiers, Switched Mode Power Supplies (SMPS) and DC motor drives for battery-powered circuits.

The IRF150P220 (150 V, 2.7 mΩ, 203 A) is the latest flagship product. It is optimized for both high current-carrying capability and low $R_{DS(on)}$, making it the ideal solution for high-power applications. When compared to previous generation devices, it offers a 19 percent increase in current-carrying capability and 54 percent lower $R_{DS(on)}$, leading to increased power density and reduction in I^2R losses.

Features

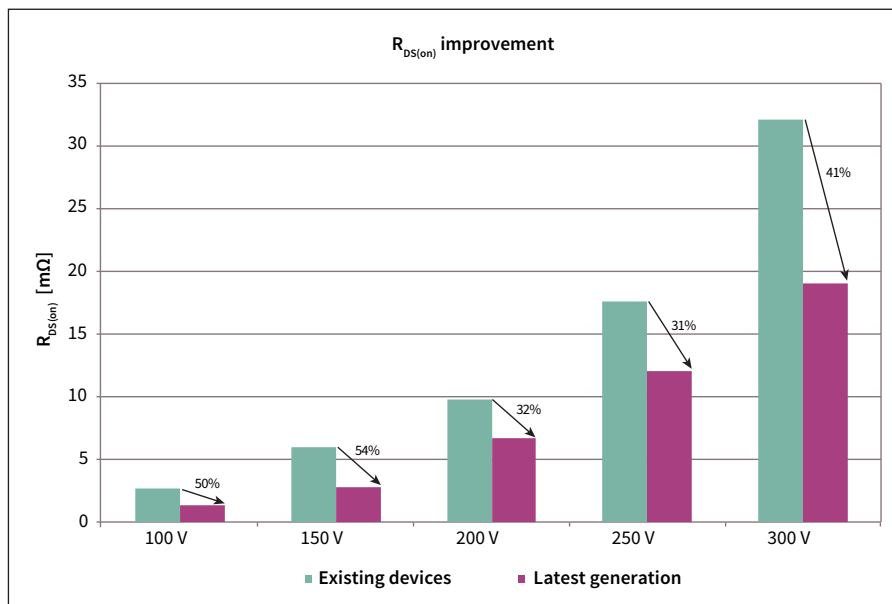
- > $R_{DS(on)}$ as low as 2.7 mΩ at 150 V
 - 54 percent improvement on previous generations
- > Current-carrying capability as high as 203 A at 150 V
 - 19 percent improvement on previous generations
- > Comprehensive portfolio including best-in-class and price/performance-optimized devices
- > Industry-standard footprint
- > Product validation according to JEDEC standard
- > Optimized for broadest availability from distribution partners

Benefits

- > Reduced conduction losses
- > Increased power density
- > Wide variety of options and design choices
- > Accommodates legacy designs

Applications

- > Uninterruptible Power Supply (UPS)
- > Solar power inverter
- > Class D audio amplifier
- > Switched Mode Power Supply (SMPS)
- > Brushed and BLDC motor drive
- > Battery-powered circuits



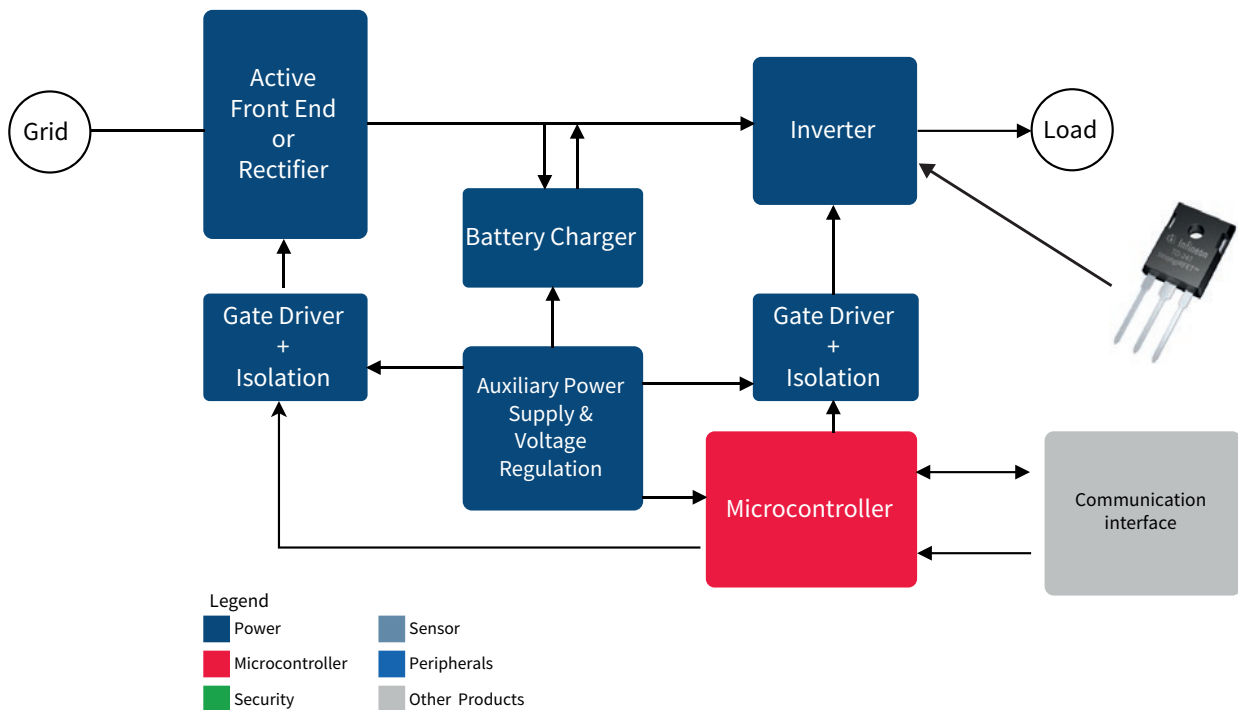
Product portfolio StrongIRFET™ 100 V to 300 V TO-247

Voltage [V]	Part number	R _{DS(on)} max. [mΩ]	Qg typ. [nC]	I _D [A]
100	IRF100P218	1.3	330	209*
	IRF100P219	1.7	168	203*
150	IRF150P220	2.7	160	203*
	IRF150P221	4.5	80	186
200	IRF200P222	6.6	135	182
	IRF200P223	11.5	68	100
250	IRF250P224	12.0	135	96
	IRF250P225	22.0	64	69
300	IRF300P226	19.0	127	75
	IRF300P227	40.0	71	50

* I_D rating is package limited

A typical high-power UPS application

The new 100 V to 300 V StrongIRFET™ devices are located within the inverter block. They are used in conjunction with a transformer to convert the DC supply voltage to AC.



Published by
Infineon Technologies AG
81726 Munich, Germany

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