

Product brief

100 V to 150 V StrongIRFET™ in TO-247

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

Infineon's new 100 V to 150 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

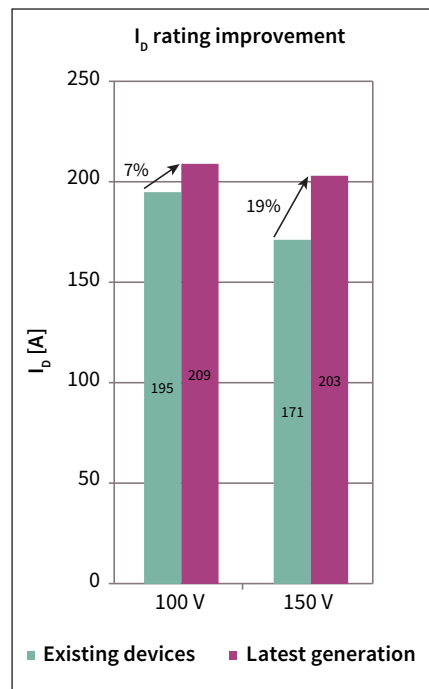
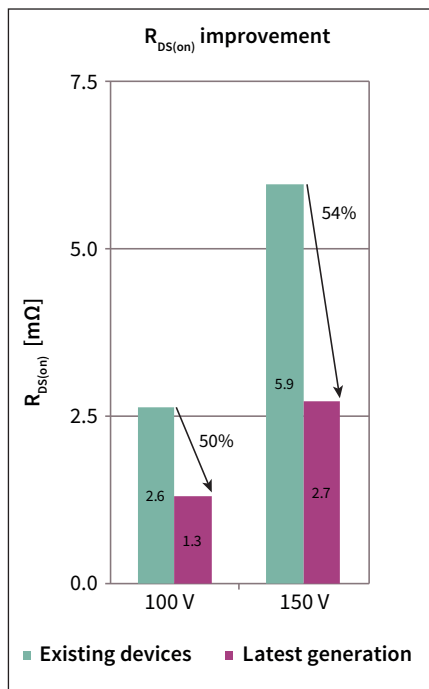
- › $R_{DS(on)}$ as low as 1.3 mΩ at 100 V
 - 50 percent improvement on previous generations
- › Current-carrying capability as high as 209 A at 100 V
 - 7 percent improvement on previous generations
- › Comprehensive portfolio including best-in-class and price/performance-optimized devices
- › Industry-standard 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



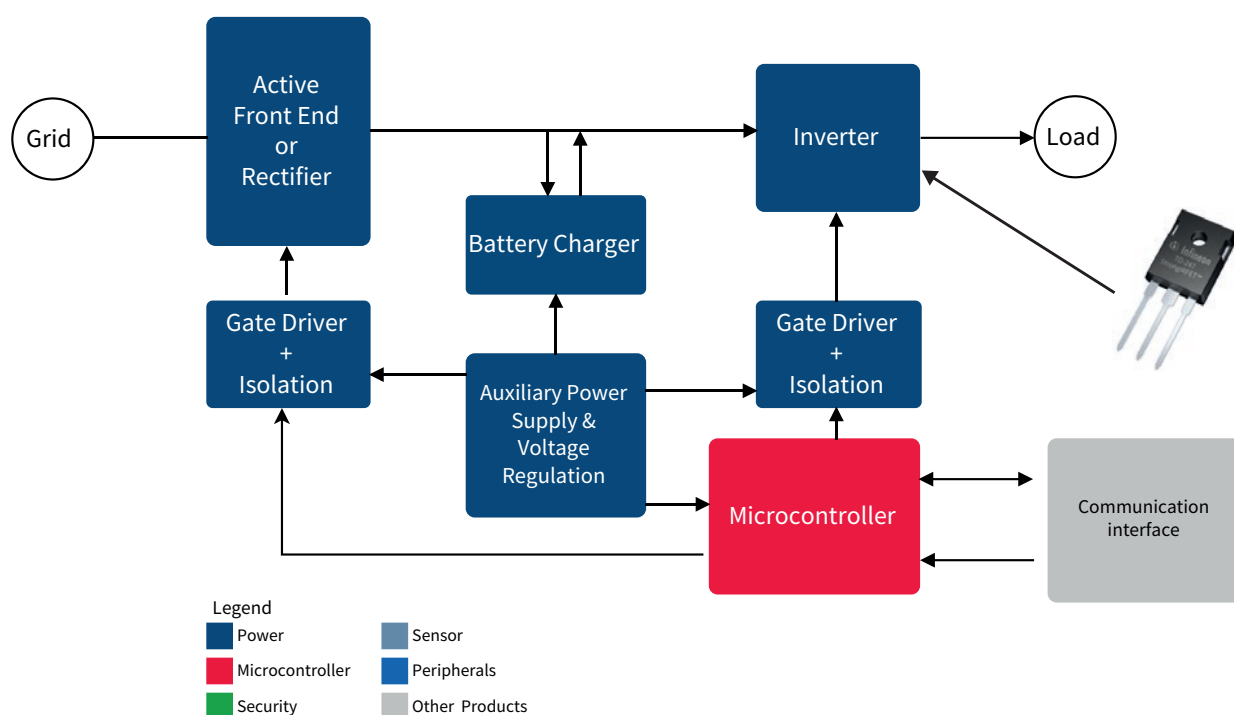
Product portfolio StrongIRFET™ 100 V to 150 V TO-247 – new devices highlighted with an asterisk (*) below

Voltage [V]	Part number	$R_{DS(on)}$ max. [mΩ]	I_D [A]
100	IRF100P218*	1.3	209**
	IRF100P219*	1.7	203**
	IRFP4468	2.6	195**
	IRFP4110	4.5	120**
	IRFP4310Z	6.0	120**
	IRFP4410Z	9.0	97
	IRFP3710	25	57
150	IRF150P220*	2.7	203**
	IRF150P221*	4.5	186
	IRFP4568	5.9	171
	IRFP4321	15.5	78

** I_D rating is package limited

A typical high-power UPS application

The new 100 V to 150 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.



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