



## Product Brief

# 40 V and 60 V StrongIRFET™

## Logic Level gate drive

Infineon introduces an extension of the successful StrongIRFET™ family for battery powered applications. The Logic Level gate drive allows designers to drive MOSFETs with  $V_{GS}$  of only 4.5 V. This is ideal in applications where standard gate drive is not available such as brushed motor drives, BLDC motor drives and battery powered circuits.

The family maintains the same characteristics of the StrongIRFET™ family which include low  $R_{DS(on)}$  for reduced conduction losses, high current carrying capability for increased power capability and rugged silicon for robustness.

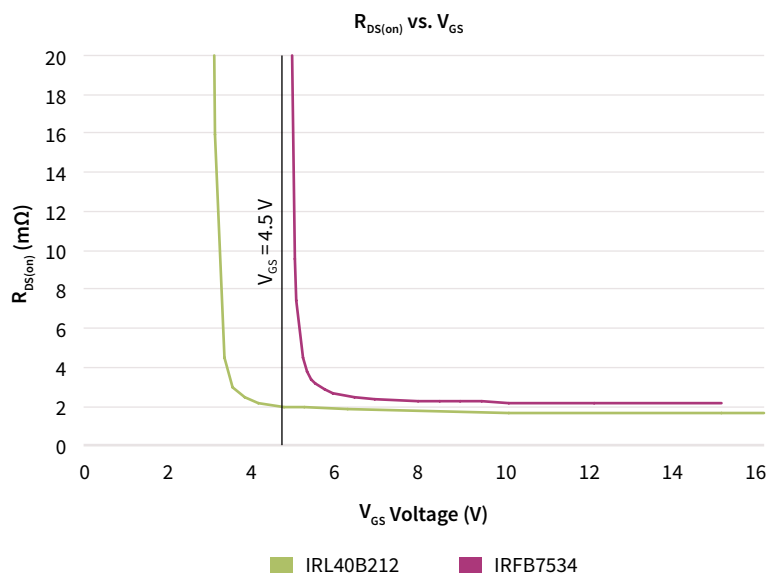
The flagship product is the IRL7472L1, which is available in the proprietary Large Can DirectFET™ package, enabling the lowest  $R_{DS(on)}$  in the market (0.97 mΩ max. at 4.5 V) for a 67 mm<sup>2</sup> solution. The DirectFET™ features excellent top-side cooling, low package profile, and contains zero lead which complies with future RoHS requirements.

### Main features and benefits

- > Designed for industrial applications
- > Ideal for low switching frequency (<100 kHz)
- > High current carrying capability (>120 A)
- > Rugged silicon
- > 4.5 V logic level optimized
- > Low  $R_{DS(on)}$

### Applications

- > Cordless power tools
- > Battery powered circuits
- > Radio controlled electric toys



Logic level  $R_{DS(on)}$  curve vs. standard  $R_{DS(on)}$  curve



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### Product portfolio

Part number	Breakdown voltage (V)	Package (outline)	Current rating (A)	R <sub>DS(on)</sub> typ/max. @ 4.5 V (mΩ)
IRL7472L1TRPBF	40	Large Can DirectFET™ package (L8)	375	0.52/0.97
IRL7486MTRPBF	40	Medium Can DirectFET™ package (ME)	209	1.5/2.0
IRL40B209	40	TO-220	195	1.2/1.6
IRL40B212	40	TO-220	195	1.9/2.4
IRL40S212	40	D <sup>2</sup> PAK	195	1.9/2.4
IRL40B215	40	TO-220	120	2.8/3.5
IRL60B216	60	TO-220	195	1.7/2.2

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