

MOSFETs Deliver the Industry's Lowest On-state Resistance



International Rectifier, IR (NYSE: IRF), a world leader in power management technology, today introduced a family of HEXFET power MOSFETs including the IRFH6200TRPbF that delivers the industry's lowest on-state resistance ($R_{DS(on)}$).

The new power MOSFETs featuring IR's latest silicon technology are the company's first devices available in a 5x6mm PQFN package with optimized copper clip and solder die. The IRFH6200TRPbF 20V device delivers industry leading $R_{DS(on)}$ of only 1.2 mOhm (max.) at 4.5V V_{GS} to significantly cut conduction losses for DC motor drive applications such as hand tools.

"With a rich heritage and ongoing commitment to benchmark MOSFET technology, IR continues to blaze the trail in superior performance with the introduction of a family of MOSFETs that combines our latest generation silicon with PQFN packaging technology to deliver industry leading $R_{DS(on)}$," said Doug Russell, vice president, IR's Power Management Devices Business Unit. "Moreover, our product roadmap will deliver an expansive portfolio of PQFN benchmark MOSFETs over the coming months in response to customer requirements," he added.

The 25V IRFH250TRPbF and 30V IRFH33xTRPbF devices are designed for DC switch applications such as active ORing and DC motor drive applications requiring high current carrying capability and high efficiency. The IRFH250TRPbF features ultra low $R_{DS(on)}$ of 1.15 mOhm (max.) combined with just 52 nC gate charge (Q_g) while the IRFH330TRPbF delivers $R_{DS(on)}$ of only 1.4 mOhm (max.) combined with 50 nC Q_g.

In addition to achieving excellent thermal performance, as a result of using the IRFH6200TRPbF, IRFH250TRPbF and IRFH33xTRPbF, board space and cost are reduced compared to existing solutions as fewer parts are required for a given power loss.

All of the devices feature low thermal resistance (<0.5°C/W), are MSL1 industrial-qualified and RoHS compliant containing no lead, bromide or halogen.

Source URL (retrieved on 05/21/2013 - 2:20am):

<http://www.ecnmag.com/product-releases/2010/02/mosfets-deliver-industry%E2%80%99s-lowest-state-resistance>