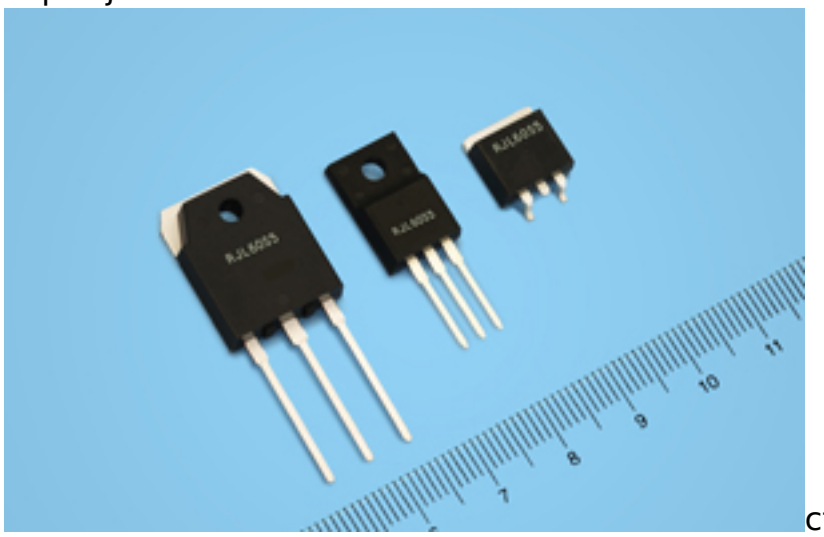
Super junction MOSFETs employ ultra-low on-state resistance for reverse recovery performance

Renesas Electronics Corporation today announced the availability of three new super-junction metal-oxide-semiconductor field-effe



ct-transistors (Super Junction MOSFETs). This ultra-low on-state resistance and low gate charge combination benchmark, combined with the fast body diode feature, allow the new RJL60S5DPP, RJL60S5DPK and RJL60S5DPE devices to contribute to improved power efficiency in home appliance motor drives. Previously, home appliances used IGBTs with discrete Fast Recovery Diodes to enable a short reverse recovery time. Now, the need for higher switching speeds and lower loss is generating demand for Super Junction MOSFETs with fast recovery body diode characteristics. The Super Junction MOSFETs enable a decrease of the on-resistance without reducing voltage tolerance making it possible to produce MOSFETs with a lower on-resistance per unit of area. Renesas has developed a family of new high-performance Super Junction MOSFETs with high-speed body diodes, for low loss and improved high-speed switching performance.

Renesas Electronics Corporation
renesas.com
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