# MOSFETs deliver benchmark on-state resistance for improved system efficiency in heavy load applications

International Rectifier introduced a family of automotive-qualified COOLiRFET MOSFETs delivering benchmark on-state resistance (Rds(on)) for heavy load applications including electric power steering (EPS), braking systems and other heavy loads on internal combustion engine (ICE) and micro hybrid vehicle platforms.

The family of 22 AEC-Q101 qualified 40V N-channel MOSFETs feature IR’s proven Gen12.7 trench technology that delivers ultra-low Rds(on) in D2Pak-7P, D2Pak, DPak, TO-262, IPAK and TO-220 packages. The benchmark D2Pak-7P AUIRFS8409-7P delivers Rds(on) max as low as 0.75mOhm at 10Vgs with a current rating up to 240A. The new devices offer low conduction losses and robust avalanche performance to deliver higher efficiency, power density and reliability. With this performance, many applications using these new COOLiRFETdevices run significantly cooler than with state-of-the-art MOSFETs.

IR's automotive MOSFETs are subject to dynamic and static part average testing combined with 100 percent automated wafer level visual inspection as part of IR's automotive quality initiative targeting zero defects. The new devices are AEC-Q101 qualified, which requires that there is no more than a 20 percent change in Rds(on) after 1,000 temperature cycles of testing, and feature an environmentally friendly, lead-free and RoHS compliant bill of materials.

Datasheets and qualification standards are available on the International Rectifier website at www.irf.com [1]. Spice models are available on request.

Availability and pricing

Pricing ranges from US $0.39 each for the AUIRFU8401 to US $1.70 each for the AUIRFS8409-7P in 100,000-unit quantities. Production orders are available immediately. Prices are subject to change.

**Source URL (retrieved on *03/12/2014 - 8:53am*):**
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**Links:**
[1] http://www.irf.com/