Dual Power MOSFETs Intended For Lightweight Space Applications

International Rectifier today introduced the company's first family of radiation hardened (RAD-Hard) dual power MOSFETs in a compact hermetic LCC-6 surface mount package for low power lightweight space applications requiring a small footprint such as satellite payload power systems.

Offering dimensions as compact as 0.245 inches by 0.17 inches with a low profile of 0.08 inches (6.2 mm long x 4.3 mm wide x 2 mm high), the LCC-6 family of devices helps reduce both board space and weight. The new 60 V logic level devices are available in 2 N-channel, 2 P-channel or 1N and 1P-channel configuration co-packaged in a 6-pad LCC-6 surface mount package.

"By combining two MOSFETs into one small package, IR's new LCC-6 devices can replace two UB or LCC-3 packages, thereby reducing the number of components, board area and weight in today's low power space applications. Moreover, as logic level MOSFETs, they can be driven directly from digital circuitry, reducing external component count," said Odile Ronat, discrete marketing manager, HiRel Business Unit.

The new devices use IR's proven R7 logic level, RAD-Hard MOSFET technology which features low on-state resistance (RDS(on)), fast switching and small size, making the new MOSFETs ideal alternatives to traditional bipolar devices.

The MOSFETs are rated at 100 krad (Si) total ionizing dose (TID) with 300 krad (Si) TID rating also available. Devices are single event effect (SEE) rated at 85 MeV/(mg/cm2) LET and are available as commercial-off-the-shelf (COTS) or

screened to MIL-PRF-19500 space level.

Specifications

Datasheets, TID radiation report, package dimensions and case outline are available on the International Rectifier website at www.irf.com [1]

Availability and Pricing

Pricing begins at US $624 for the IRHLUC770Z4 in 10-unit quantities. Production orders are available immediately. Prices are subject to change. These products are subject to U.S. export control laws and regulations.

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