Automotive-qualified MOSFETs Offer Rugged, Compact System Solution

International Rectifier today introduced a family of rugged automotive qualified MOSFETs for a range of applications used in Internal Combustion Engine (ICE) and hybrid vehicle platforms.

Utilizing IR's proven planar technology, the new MOSFET devices are available in an SO-8 package. Comprising both single and dual N and P channel devices, in addition to N and P channel devices integrated into a single package, the new family offers a rugged, compact system solution for driving multiple outputs or half-bridge circuits in automotive applications.

"Available in a wide range of voltages and configurations in an SO-8 package and utilizing IR's planar technology, our latest family of automotive-qualified MOSFETs provides a rugged compact solution well suited to applications where a robust MOSFET is needed to drive both resistive and inductive loads," said Benjamin Jackson, product manager, IR's Automotive Products Business Unit.

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 qualified according to AEC-Q101 standards, feature an environmentally friendly, lead-free and RoHS compliant bill of materials.

Specifications

Part Number	Package	Gate Drive	$V_{(BR)DSS}$ (V)	$R_{DS(ON)\ MAX}$ @ $10V_{GS}$ (mOhm)	$I_{D\ MAX}$ @ T_C = 25°C (A)	

Single N Channel Devices						
AUIRF7805Q	SO-8	Logic	30	11	13	
Dual N Channel Devices						
AUIRF7303Q	SO-8	Logic	30	50	4.9	
AUIRF7103Q	SO-8	Logic	50	130	4.0	
AUIRF7341Q	SO-8	Logic	55	50	5.1	
Single P Channel Devices						
AUIRF7207Q	SO-8	Logic	20	60	5.4	
AUIRF7416Q	SO-8	Logic	30	30	10	
Dual P Channel Devices						
AUIRF7304Q	SO-8	Logic	20	90	4.3	
AUIRF7316Q	SO-8	Logic	30	58	4.9	
AUIRF7342Q	SO-8	Logic	55	105	3.4	
N and P Channel Paired MOSFETs*						
AUIRF7319Q	SO-8	Logic	30	29	5.5	
AUIRF7379Q	SO-8	Logic	30	45	5.8	
AUIRF7309Q	SO-8	Logic	30	50	4.0	
AUIRF9952Q	SO-8	Logic	30	30	5.5	
AUIRF7343Q	SO-8	Logic	55	95	4.7	

***Part contains an N channel and P channel MOSFETs, parameters given are for the N channel devices, see datasheet for parameters for P channel switches.**

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 $0.33 each for the AUIRF9952Q in 100,000-unit quantities to US $0.62 each in 100,000-unit quantities for the AUIRF7805Q. Production orders are available immediately. Prices are subject to change.

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http://www.ecnmag.com/product-releases/2011/04/automotive-qualified-mosfets-offer-rugged-compact-system-solution

Links:
[1] http://www.irf.com