International
IOR Rectifier
THE POWER MANAGEMENT LEADER

BENCHMARK MOSFETS

MOSFETs for DC-DC Buck Converter Applications

Features and Benefits:

- 25V and 30V
- Available in SO-8, PQFN 5x6, PQFN 3x3, PQFN 2x2 and D-PAK
- Low conduction losses
- Improved full load efficiency and thermal performance
- High efficiency, even at light loads
- RoHS-compliant

Market/Applications:

- Notebooks microprocessor power supplies
- Generic system or load switch for 10 to 20V bus
- Battery charger for notebook PC
- Battery protection for notebook PC (if no extra ESD protection required)
- Advanced telecom and datacom systems
- Voltage regulator converter for high digital content ICs in graphic cards, netbook, desktop and note book PC

The IR Advantage:

- Benchmark performance standards and manufacturing capabilities
- Leading selection of power MOSFETs
- Industry's lowest $R_{DS(ON)}$
- Widest range of packages up to 250V
- Industry-leading quality

International Rectifier offers a series of 25V and 30V N-channel trench HEXFET® power MOSFETs featuring enhanced switching performance for synchronous buck converter and battery protection in computing applications for consumer and networking sectors.

The family of MOSFETs utilizes IR's proven silicon technology to deliver benchmark on-state resistance ($R_{DS(on)}$) and improved switching performance. The devices' low conduction losses improve full-load efficiency and thermal performance while low switching losses help to achieve high efficiency even at light loads.

Single and dual N-channel MOSFETs are available. Single devices are offered in a PQFN 5x6mm, 3x3mm and 2x2mm package to provide improved power density when compared with an SO-8 package while keeping the same pin-out configuration. The single devices are also offered in D-PAK, I-PAK, and SO-8 packages while dual devices are offered in PQFN 5x6, PQFN 3x3 and SO-8 packages. Depending upon application, the dual MOSFETs allow a 'two for one' exchange to reduce component count. The MOSFETs are RoHS compliant and can be offered as Halogen free.

Your FIRST CHOICE for Performance

Single N-Channel

Part Number	BV_{DS} (V)	Package	Max V_{GS}	I_D Max. @25°C (A)	$R_{DS(on)}$ Typ/ Max. (mΩ)		Qg Typ. @4.5V (nC)
					V_{GS} = 10V	V_{GS} = 4.5V	
IRF8707(TR)PBF	30	SO8	20 V	11 A	9/12	14 / 18	6.2
IRF8714(TR)PBF				14 A	7/9	11/13	8.1
IRF8721(TR)PBF				14 A	7/9	11/13	8.3
IRF8736(TR)PBF				18 A	4/5	6/7	17
IRF8734(TR)PBF				21 A	3/4	4/5	20
IRF7862(TR)PBF				21 A	3 / 3.3	4/5	30
IRF8788(TR)PBF				24 A	2/3	3/4	44
IRFH8337(TR,TR2)PBF	30	PQFN 5x6		16 A	10/13	16 / 20	4.7
IRFH8334(TR,TR2)PBF				25 A	7/9	11/14	7.6
IRFH8330(TR,TR2)PBF					5.3 / 6.6	8/10	9.3
IRFH8325(TR,TR2)PBF					4.2 / 5.0	5.9 / 7.2	15
IRFH8324(TR,TR2)PBF				50 A	3.3 / 4.1	5.0 / 6.3	14
IRFH8318(TR,TR2)PBF					2.5 / 3.1	3.6 / 4.6	21
IRFH8316 (TR,TR2)PBF					2.4 / 2.95	3.4 / 4.3	30
IRFH8311(TR,TR2)PBF					1.7 / 2.1	2.6 / 3.2	33
IRFHM831(TR,TR2)PBF	30	PQFN 3x3		40 A	6.6 / 7.8	11.0 / 13.0	7.3
IRFHM830(TR,TR2)PBF					3.0 / 3.8	4.8 / 6.0	15
IRFHM830D(TR,TR2)PBF					3.4/ 4.3	5.7 / 7.1	13
IRFH3702(TR,TR2)PBF				25 A	5.7 / 7.1	8.7 / 11.8	9.6
IRFH3707(TR,TR2)PBF				18 A	9.4 / 12.4	14.5 / 17.9	5.4
IRFHS8342(TR,TR2)PBF	30	PQFN 2x2		8.5 A	13 / 16	20 / 25	4.2
IRFHS8242(TR,TR2)PBF	25			8.5 A	10/13	17 / 21	4.3
IRL(R,U)8259(TR)PBF	25	D-Pak/I-PAK		42 A	6.3 / 8.7	11/13	6.8
IRL(R,U)8256(TR)PBF	25	D-Pak/I-PAK		42 A	4.2 / 5.7	6.7 / 8.5	10

Dual N-Channel

Part Number	BV_{DS} (V)	Package	Max V_{GS}	I_D Max. @25°C (A)	$R_{DS(on)}$ Typ/ Max. (mΩ)		Qg Typ. @4.5V (nC)
					V_{GS} = 10V	V_{GS} = 4.5V	
IRFH7911(TR,TR2)PBF	30	PQFN 5x6	20 V	28 A	2/3	3/4	8.3
IRFHM8363(TR,TR2)PBF	30	PQFN 3x3		10 A	12/15	16 / 20	6.7
IRF8313PBF	30	SO8		9.7 A	13 / 16	19 / 22	6
IRF8513PBF				11 A	10/13	14 / 17	5.7