International
IOR Rectifier
THE POWER MANAGEMENT LEADER

BENCHMARK MOSFETS

Small PowIR MOSFETs

Features:

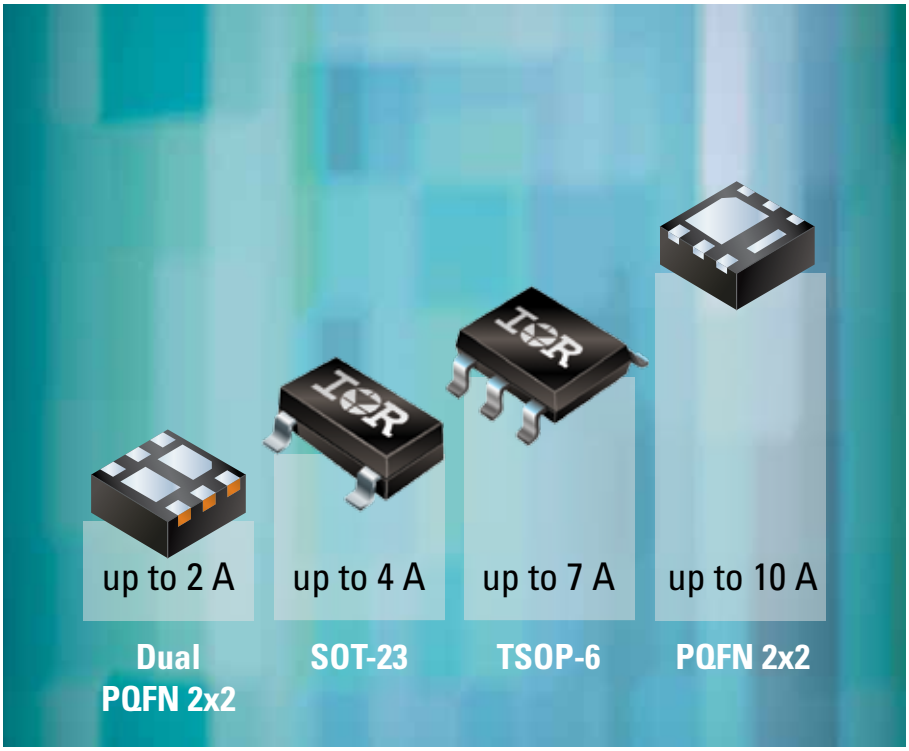
- Low $R_{DS(ON)}$
- Breakdown voltages from -30V to 100V
- N-Channel and P-Channel devices available
- Industry standard packages

Advantages:

- Shrink board space
- Extend battery life
- Improve system flexibility
- Reduce system cost

Applications:

- Battery management
- Load switch
- Low power DC motor
- LED lighting



Improve efficiency, extend battery life and reduce system size with IR's Small PowIR MOSFETs

International Rectifier's Small PowIR MOSFETs brings big value to your small power application. By combining the latest high performance silicon technology with the latest in small and innovative packaging, IR offers designers more flexibility when it comes to making a MOSFET selection. For example, the IRLML6244TRPBF from the new SOT-23 portfolio, can provide better $R_{DS(on)}$ (21 mΩ max @ 4.5Vgs) than some SO-8 devices on the market that are twice its size. Also, the new 2x2 PQFN (Power Quad Flat No-lead) package family offer some of the smallest dual configurations possible (dual N or dual P) while providing optimal thermal performance (19°C/W) to rival packages nearly 3 times its size. The entire family, including SO-8, TSOP-6, and PQFN 3x3, allows designers to maximize board space, save on part count, and improve system efficiency.

N-Channel Small PowIR MOSFETs

Voltage (V)	$R_{DS(ON)}$ max (mΩ) @			I_D (A) @		Qg typ (nC)	PQFN		SOT-23	TSOP-6	SO-8
	10 V_{GS}	4.5 V_{GS}	2.5 V_{GS}	Tc=25°C	Ta=25°C		Part Number	Footprint			
	-	2.5	2.8	-	27	130					IRF6201
	-	2.5	3.5	40	-	52	IRLHM620	3.3 x 3.3			
20	-	11.7	15.5	22	-	14	IRLHS6242	2 x 2			
	-	11.7	15.5	22	-	14	IRLHS6276	2 x 2			
	-	21	27	-	6.3	8.9			IRLML6244		
	-	46	66	-	4.1	3.5			IRLML6246		
	2.7	3.7	-	-	25	35					IRF8252
25	13	21	-	21	-	4.3	IRFHS8242	2 x 2			
	24	41	-	-	5.8	5.4			IRFML8244		
	-	3.5	4.5	40	-	41	IRLHM630	3.3 x 3.3			
	2.8	3.8	-	-	24	44					IRF8788
	3.3	4.5	-	-	21	30					IRF7862
	3.5	5.1	-	-	21	20					IRF8734
	3.8	6	-	40	-	31	IRFHM830	3.3 x 3.3			
	4.8	6.8	-	-	18	17					IRF8736
	4.3	7.1	-	40	-	13	IRFHM830D	3.3 x 3.3			
	8.5	12.5	-	-	14	8.3					IRF8721
	7.8	12.6	-	47	-	7.3	IRFHM831	3.3 x 3.3			
	7.8	12.6	-	47	-	7.3	IRFHM8363	3.3 x 3.3			
	8.7	13	-	-	14	8.1					IRF8714
30	-	14.6	19	-	9.9	11					IRL6342
	-	14.6	19	-	9.9	11					IRL6372
	-	15.5	19.5	19	-	11	IRLHS6342	2 x 2			
	-	15.5	19.5	19	-	11	IRLHS6376	2 x 2			
	11.9	17.5	-	-	11	6.2					IRF8707
	-	17.5	22	-	8.3	11				IRLTS6342	
	16	25	-	19	-	4.2	IRFHS8342	2 x 2			
	19	29	-	-	8.2	4.8				IRFTS8342	
	-	29	37	-	5	6.8			IRLML6344		
	27	40	-	-	5.3	2.6			IRLML0030		
	-	63	80	-	3.4	2.9			IRLML6346		
	100	154	-	-	2.7	1			IRLML2030		
40	56	78	-	-	3.6	2.6			IRLML0040		
60	92	116	-	-	2.7	2.5			IRLML0060		
	480	640	-	-	1.2	0.7			IRLML2060		
100	220	235	-	-	1.6	2.5			IRLML0100		

P-Channel Small PowIR MOSFETs

Voltage (V)	$R_{DS(ON)}$ max (mΩ) @			I_D (A) @		Qg typ (nC)	PQFN		SOT-23	TSOP-6	SO-8
	10 V_{GS}	4.5 V_{GS}	2.5 V_{GS}	Tc=25°C	Ta=25°C		Part Number	Footprint			
	4.6	6.8	-	-	-20	58					IRF9310
	4.6	7.1	-	-40	-	58	IRFH9310	5 x 6 B			
	6.6	10.2	-	-	-16	31					IRF9317
	7.2	11.2	-	-	-15	34					IRF9321
	11.9	19.7	-	-	-12	18					IRF9328
	17.5	28.1	-	-	-9.8	14					IRF9332
	19.4	32.5	-	-	-9.2	14					IRF9333
	37	65	-	-13	-	6.9	IRFHS9301	2 x 2			
-30	37	65	-	-13	-	6.9	IRFHS9351	2 x 2			
	40	66	-	-	-5.8	12				IRFTS9342	
	64	103	-	-	-3.6	4.8			IRLML9301		
	59	110	-	-	-5.4	4.7					IRF9335
	59	110	-	-	-5.4	4.7					IRF9358
	59	110	-	-	-5.4	4.7					IRF9362
	165	270	-	-	-2.3	2			IRLML9303		
	14.6	-	-	-24	-	16	IRFHM9331	3 x 3			
	-	31	53	-15	-	12	IRLHS2242	2 x 2			
-20	-	54	95	-	-4.3	6.9			IRLML2244		
	-	135	236	-	-2.6	2.9			IRLML2246		

Dual MOSFETs

Voltage (V)	$R_{DS(ON)}$ max (mΩ) @			Configuration	Qg typ (nC)	PQFN		SO-8
	10 V_{GS}	4.5 V_{GS}	2.5 V_{GS}			Part Number	Footprint	
	16.3	23.8	-	Independent Symmetric	19			IRF9358
-30	21	32	-	Independent Symmetric	13			IRF9362
	170	290	-	Independent Symmetric	1.9	IRFHS9351	2 x 2	
20	-	45	62	Independent Symmetric	3.1	IRLHS6276	2 x 2	
	8.6	14.5	-	Half-Bridge Asymmetric	8.3	IRFH7911	5 x 6 C	
	3	4	-		34			
	-	17.9	23	Independent Symmetric	11			IRL6372
30	14.9	20.4	-	Independent Symmetric	15	IRFHM8363	3.3 x 3.3 E	
	15.5	21.6	-	Independent Symmetric	6			IRF8313
	15.5	22.2	-	Half-Bridge Asymmetric	5.7			IRF8513
	12.7	16.9	-		7.6			
	-	-	82	Independent Symmetric	2.8	IRLHS6376	2 x 2	
50	130	200	-	Independent Symmetric	12			IRF7103U
60	17.8	-	-	Independent Symmetric	24			IRF7351
100	195	-	-	Independent Symmetric	4.2	IRFHM792	3.3 x 3.3 E	