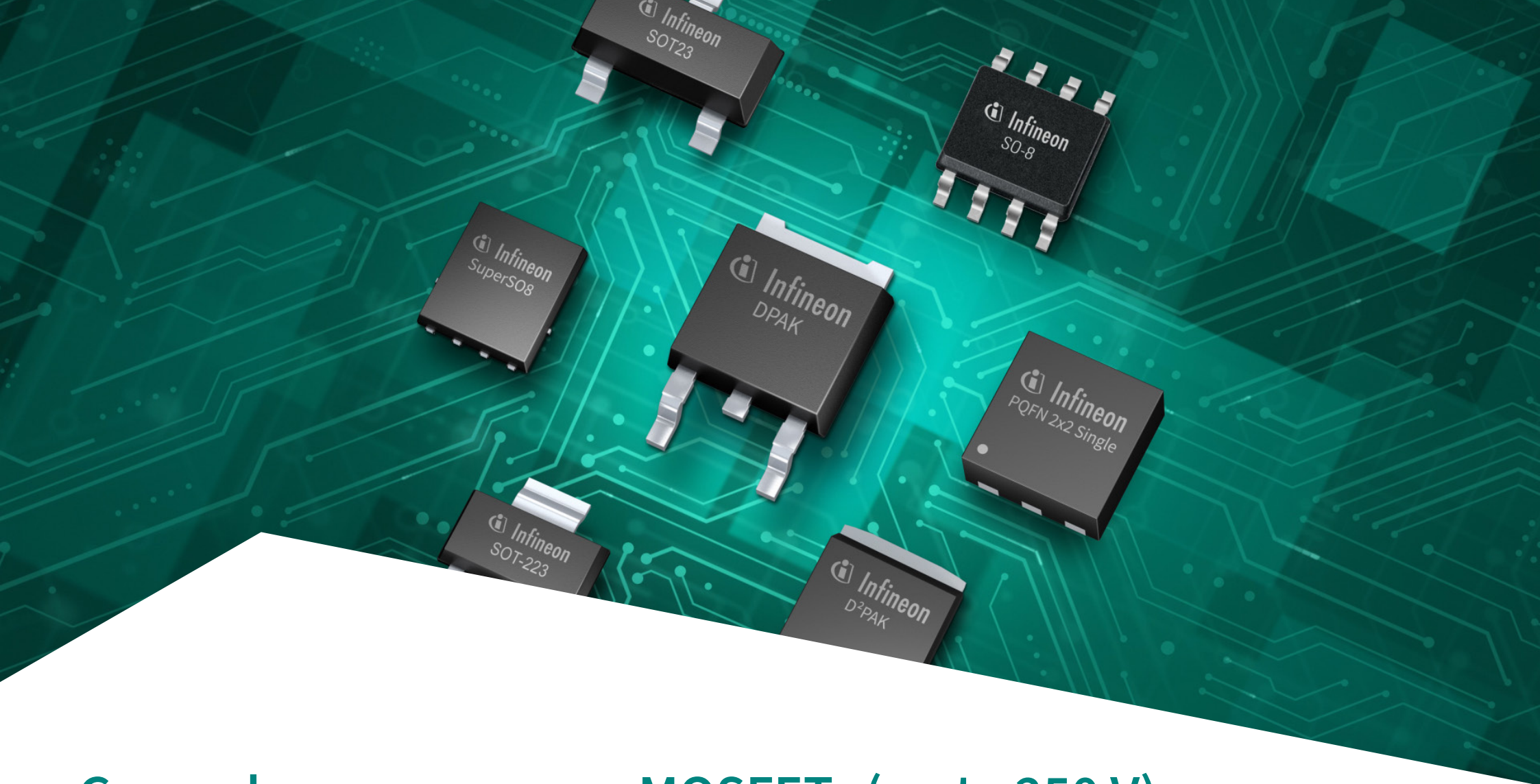




General purpose power MOSFETs (up to 250 V)

Low power MOSFETs offering broad product availability, convenience, and ease of design



General purpose power MOSFETs (≤ 250 V)

Easy to use, widely available, and price-competitive solutions

At Infineon, we strive to serve all customers by offering products that can meet all design, pricing, and logistical requirements. Renowned for its established MOSFET technology expertise and high-quality standards, Infineon offers proven solutions that you can trust. Fulfill your individual design and system requirements with our product offering and you will benefit from:



Availability

Very competitive lead time



Competitive pricing

Expertise in manufacturing quality leveraged with value-based pricing



Ease of design

Available:
[Online design tools](#)
[Simulation models](#)
› Product support material



Convenient selection and purchasing

Component comparison tools:
[Cross-reference tool](#)
[MOSFET finder](#)
Product availability via [distribution network](#)



Quality and supply stability

Highest manufacturing capability standards with a stable long-term product supply

Infinion MOSFETs – designed with you in mind

Space-saving and high performance packages

	PQFN 2x2	SOT23	TSOP6L	PQFN 3.3x3.3	SO-8	SuperSO8	SOT-223
							
Special features	Enables significant space saving	Compact package for low-power applications	Space-saving package for low-power applications	High efficiency in small form factor	Small footprint	For highest efficiency and power management	Space savings with low power dissipation
Height [mm]	0.9	1	1.1	1	1.55	1	1.6
Outline [mm]	2.0 x 2.0	2.9 x 2.4	2.9 x 2.5	3.3 x 3.3	4.9 x 6	5.15 x 6.15	6.5x7
Thermal resistance R _{thJC} [K/W]	11.1	100 ¹⁾	62.5 ¹⁾	3.2	50	0.8	70 ¹⁾

	DPAK	D ² PAK	D ² PAK-7pin	TOLL	TO-220	TO-220FP	TO-247
							
Special features	Ideal for medium-power applications	Optimized for high power applications and high current capability					
Height [mm]	2.2	4.4	4.4	2.3	4.4	4.4	5
Outline [mm]	6.5 x 10	15 x 10	15 x 10	11.7 x 9.9	29.5 x 10	29.5 x 10	40.15 x 15.9
Thermal resistance R _{thJC} [K/W]	0.9	0.5	0.5	0.4	0.5	2.5	2

Established quality, long term supply

The selected portfolio of low power MOSFETs offers simple and price-competitive solutions that have wide availability and established quality.

The portfolio covers voltage classes up to 250 V. It includes a range of single and dual N-channel Power MOSFETs for 12 or 24 V_{DC} bus voltages. Products for smaller power handling (single and dual N- and P-channel MOSFETs) are also offered.

Infinion is the market leader in the power discrete and module market, holding the number one position with 20% of market share²⁾. This enables large-scale manufacturing capabilities providing customers with stable and long-term product supply.

The selected parts come in a wide range of packages including SOT23, SOT-223, PQFN (2x2, 3.3x3.3), DPAK, D²PAK, D²PAK-7pin, SO-8, SuperSO8 5x6 and TO-220, TO-220-FP, TO-247, TOLL.

1) RTHJA

Products that fit your design

System-optimized products addressing a broad range of needs from low to high-switching applications

 5G	 Server	 Telecom	 PC power	 Adapter
 USB PD charger	 Charger	 LCD TV	 Wireless charging	 UPS
 Battery	 Battery protection	 BMS	 Power tools	 Home & garden
 Drives	 LEV	 Electric toys	 Service robots	 Multicopter
 Smartwatch	 Smart speaker	 Ultra-low power	 Audio	 Solar

Flexible use

Struggling to find low-power MOSFETs with the flexibility to be used on various applications? Maximize the value of your end-products by choosing Infineon - a reliable partner with system understanding and technological expertise.

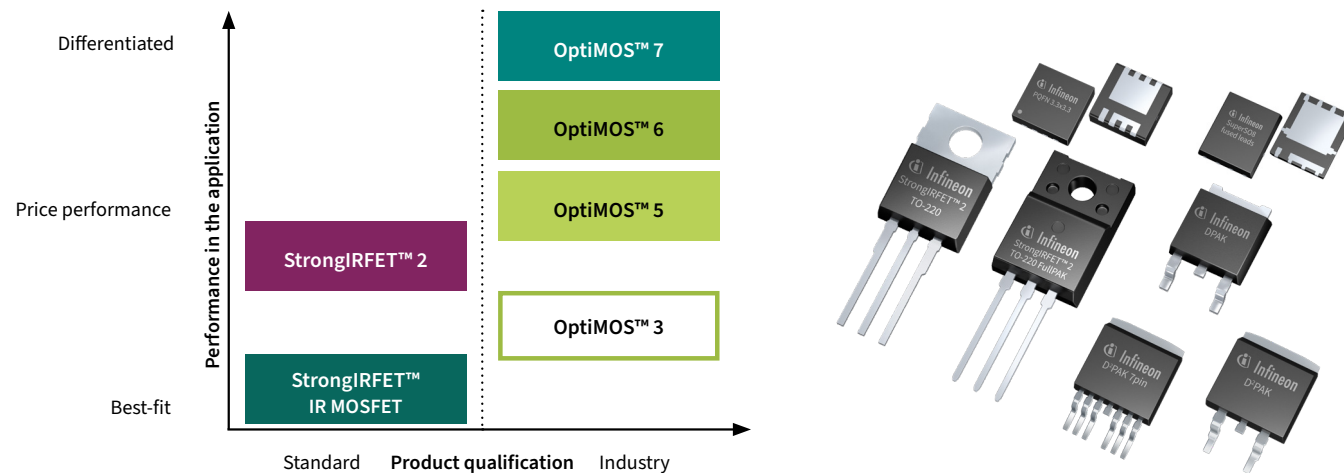
Fulfillment of your individual design and system requirements is our top priority. Power MOSFETs from the selected portfolio (≤ 250 V) can help increase system performance and efficiency. Reduced power losses can be achieved thanks to the low $R_{DS(on)}$ values as well as low gate and output charges.

By adhering to the highest quality standards, Infineon safeguards to ensure that these MOSFETs perform reliably under various application conditions. Additionally, the variety of available packages including SuperSO8, DPAK, PQFN (2x2, 3.3x3.3) and TO-220 supports design and application flexibility.

StrongIRFET™ 2 power MOSFETs

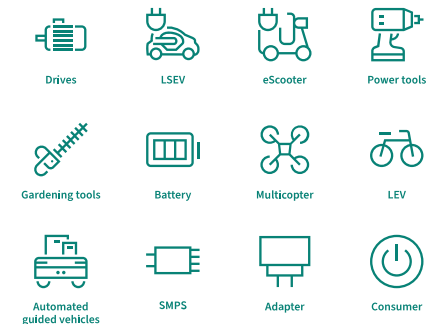
Right-fit products for a broad range of applications

The new StrongIRFET™ 2 power MOSFETs are the latest generation of MOSFETs addressing a wide range of applications such as adapters, motor drives, e-scooters, battery management systems, light electric vehicles, robotics, power and gardening tools, and other consumer applications. Featuring broad availability and excellent price/performance ratio and robustness, this new technology offers right-fit products with an easy choice for designers interested in convenient selection and purchasing. Optimized for both low- and high-switching frequencies, the family supports a broad range of applications enabling flexibility in design.



Features and benefits

Key features	Key benefits
- Broad availability from distribution partners - Excellent price/performance ratio - Ideal for high and low switching frequency - Industry standard footprint - High current rating	- Increased security of supply - Right-fit products - Supports wide variety of applications - Standard pin out allows for drop-in replacement - Increased product ruggedness



D²PAK (TO-263)

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IPB012N04NF2S	40	197	1.25		159		N
	IPB014N04NF2S	40	191	1.45		106		N
	IRFS7437	40	195	1.8		150		N
	IRL40S212	40	195	1.9	2.4		91	N
	IPB013N06NF2S	60	198	1.3		203		N
	IPB015N06NF2S	60	195	1.5		155		N
	IPB018N06NF2S	60	187	1.8		108		N
	IPB029N06NF2S	60	120	2.9		68		N
	IRFS7537	60	173	3.3		142		N
	IPB016N08NF2S	80	170	1.65		170		N
	IPB019N08NF2S	80	166	1.95		124		N
	IPB024N08NF2S	80	107	2.4		89		N
	IPB040N08NF2S	80	107	4		54		N
	IPB055N08NF2S	80	94	5.5		36		N
	IPB026N10NF2S	100	162	2.65		103		N
	IPB043N10NF2S	100	135	4.35		57		N
	IPB050N10NF2S	100	103	5.05		51		N
	IPB035N10NF2S	100	151	3.5		69		N
	IRFS4615	150	33	42		26		N
	IRFS4620	200	24	77.5		25		N
	IRFS4229	250	45	48		72		N

D²PAK 7pin (TO-263 7pin)

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IPF009N04NF2S	40	302	0.9		210		N
	IPF010N06NF2S	60	293	1.05		203		N
	IPF012N06NF2S	60	282	1.2		155		N
	IPF016N06NF2S	60	223	1.7		108		N
	IRLS3036-7P	60	300	1.9	2.2		110	N
	IRFS7730-7P	75	240	2		285		N
	IPF014N08NF2S	80	282	1.4		170		N
	IPF017N08NF2S	80	259	1.7		124		N
	IPF023N08NF2S	80	209	2.3		89		N
	IPF039N08NF2S	80	126	3.9		54		N
	IPF016N10NF2S	100	274	1.6		161		N
	IPF024N10NF2S	100	227	2.4		103		N
	IPF042N10NF2S	100	139	4.25		57		N
	IPF050N10NF2S	100	117	5.05		51		N

DPAK (TO-252)

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IPD020N03LF2S	30	143	2.05	2.7	69	33	N
	IPD023N03LF2S	30	137	2.35	3.5	50	24	N
	IPD030N03LF2S	30	99	3.05	4.8	33	16	N
	IPD040N03LF2S	30	73	4.05	5.9	27	13	N
	IPD047N03LF2S	30	71	4.7	7.3	21	10	N
	IPD023N04NF2S	40	143	2.3		68		N
	IPD029N04NF2S	40	131	2.9		45		N
	IPD028N06NF2S	60	139	2.85		68		N
	IPD038N06NF2S	60	120	3.85		45		N
	IPD040N08NF2S	80	129	4		54		N
	IPD055N08NF2S	80	98	5.5		36		N
	IPD052N10NF2S	100	118	5.2		51		N
	IPD130N10NF2S	100	52	13		18.6		N
	IRLR3110Z	100	63	14	16		34	N
	IRFR4615	150	33	42		26		N
	IRFR4620	200	24	78		25		N

PQFN 2x2 (DFN2020)

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IRLHS2242	-20	-15		31		9.6	P
	IRLHS6242	20	22		11.7		14	N
	IRLHS6376	30	7.6		63		2.8	N

PQFN 3.3x3.3

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IRLHM620	20	40	2.2	2.5		52	N
	ISZ028N03LF2S	30	128	2.8	4.8	27	13	N
	ISZ033N03LF2S	30	109	3.3	5.7	21	10	N
	ISZ056N03LF2S	30	72	5.6	10	15	7.4	N

SO-8

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IRF9310	-30	-20	5	7		58	P
	IRF9317	-30	-16	7	10		31	P
	IRF9321	-30	-15	7	11		34	P
	IRF9388	-30	-12	12			18	P
	IRF8788	30	24	3	4		44	N
	IRF7862	30	21	3	5		30	N
	IRF7832	30	20	4	5		34	N
	IRF8736	30	18	5	7		17	N
	IRF7907	30	11	16.4	20.5		14	N
	IRF7855	60	12	9		26		N
	IRF7351	60	8	18		24		N
	IRF7854	80	10	13		27		N
	IRF7853	100	8	18		28		N

SOT23

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	BSS84I	-60	-0.29	5500	7000	-0.59	-0.29	P
	BSS83I	-60	-0.55	1700	2200	-1.79	-0.87	P
	IRLML9301	-30		64	103		4.8	P
	IRLML9303	-30		165	270		2	P
	IRLML2244	-20			54		6.9	P
	IRLML6246	20	4.1		46		3.5	N
	IRLML6244	20	6.3		21		8.9	N
	IRFML8244	25	5.8	24	41		5.4	N
	IRLML0030	30	5.3	27	40		2.6	N
	IRLML2030	30	2.7	100	154		1	N
	IRLML6346	30	3.4		63		2.9	N
	IRLML6344	30	5		29		6.8	N
	IRLML0040	40	3.6	56	78		2.6	N
	IRLML0060	60	2.7	92	116		2.5	N
	IRLML2060	60	1.2	480	640		0.67	N
	IRLML0100	100	1.6	220	235		2.5	N
	BSS131I	240	0.121	14000	20000	1.96	1.11	N

SuperSO8 5x6

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IRFH6200	20	49	0.95	0.99		155	N
	ISC009N03LF2S	30	341	0.9	1.45	95	46	N
	ISC012N03LF2S	30	270	1.28	2.1	69	33	N
	ISC015N03LF2S	30	214	1.5	2.6	50	24	N
	ISC023N03LF2S	30	150	2.3	3.9	33	16	N
	ISC028N03LF2S	30	128	2.8	4.5	27	13	N
	ISC033N03LF2S	30	108	3.3	5.5	21	10	N
	ISC052N03LF2S	30	74	5.2	9.8	15	7.4	N
	IRFH7440	40	159	2.4		92		N

TO-220

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IPP011N03LF2S	30	210	1.05	1.5	224	108	N
	IPP018N03LF2S	30	128	1.8	2.5	95	46	N
	IPP020N03LF2S	30	125	2.05	3	69	33	N
	IPP023N03LF2S	30	121	2.35	3.5	50	24	N
	IPP033N03LF2S	30	78	3.3	5	33	16	N
	IPP044N03LF2S	30	53	4.35	6	27	13	N
	IPP050N03LF2S	30	53	4.95	7.5	21	10	N
	IPP011N04NF2S	40	201	1.15		210		N
	IPP013N04NF2S	40	197	1.3		159		N
	IPP015N04NF2S	40	193	1.5		106		N
	IRFB7440	40	120	2.5		90		N
	IPP014N06NF2S	60	198	1.4		203		N
	IPP016N06NF2S	60	194	1.6		155		N
	IPP019N06NF2S	60	185	1.9		108		N
	IPP030N06NF2S	60	119	3.05		68		N
	IPP040N06NF2S	60	109	4		45		N
	IRFB7545	60	95	5.9		75		N
	IRFB7730	75	195	2.6		271		N
	IPP016N08NF2S	80	196	1.6		170		N
	IPP019N08NF2S	80	191	1.9		124		N
	IPP040N08NF2S	80	115	4		54		N
	IPP055N08NF2S	80	99	5.5		36		N
	IPP026N10NF2S	100	184	2.6		103		N
	IRLB4030	100	180	4.3	4.5		87	N
	IRFB4110	100	180	4.5		150		N
	IPP030N10NF2S	100	179	3		85		N
	IPP050N10NF2S	100	110	5		51		N
	IPP082N10NF2S	100	77	8.2		28		N
	IRFB4410Z	100	97	9		83		N
	IPP129N10NF2S	100	52	12.9		19		N
	IRFB4115	150	104	11		77		N
	IRFB4321	150	85	15		71		N
	IRFB5615	150	35	39		26		N
	IRFB4127	200	76	20		100		N
	IRFB4227	200	65	24		70		N
	IRFB5620	200	25	72.5		25		N
	IRFB4020	200	18	100		18		N
	IRFB4332	250	60	33		99		N
	IRFB4229	250	46	46		72		N

TO-220 FullPAK

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IPA030N10NF2S	100	83	3		103		N
	IPA082N10NF2S	100	46	8.2		28		N
	IRFI4212H-117P	100	11	72.5		12		N

TO-247

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IRF100PW219	100	203	1.7		168		N
	IRFP4468	100	290	2.6		360		N
	IRFP4110	100	180	4.5		150		N
	IRFP4310Z	100	134	6		120		N
	IRFP4568	150	171	5.9		151		N
	IRFP4321	150	78	15.5		71		N
	IRFP4668	200	130	9.7		161		N
	IRFP4227	200	65	25		70		N
	IRFP4768	250	93	17.5		180		N
	IRFP4332	250	57	33		99		N
	IRFP4229	250	44	46		72		N

TOLL (HSOF-8)

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IRL40T209	40	300	0.72	1.1		179	N
	IPT012N08NF2S	80	351	1.23		170		N
	IPT015N10NF2S	100	315	1.5		161		N
	IPT017N10NF2S	100	294	1.75		130		N
	IPT022N10NF2S	100	236	2.25		103		N

TSOP6L (micro 6)

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	IRFTS9342	-30		40	66		12	P
	IRLTS2242	-20			32		12	P
	IRLTS6342	30	8.3		17.5		11	N

SOT-223

Package	Product	V _{DS} max [V]	I _D @25°C max [A]	R _{DS(on)} @10 V max [mΩ]	R _{DS(on)} @4.5 V max [mΩ]	Q _g typ @10 V [nC]	Q _g typ @4.5 V [nC]	Polarity
	ISP14EP15LM	-150	-1.29	1380	1400	-11.6		P
	ISP16DP10LM	-100	-3.9	160	190	-42		P
	ISP98DP10LM	-100	-1.55	980	1050	-7.2		P
	ISP20EP10LM	-100	-0.99	2000	2200	-3.5		P
	ISP75DP06LM	-60	-1.1	750	1000	-4		P
	ISP12DP06NM	-60	-2.8	125		-20.2		P
	ISP25DP06LM	-60	-1.9	250	310	-13.9		P
	ISP25DP06NM	-60	-1.9	250		-10.8		P
	ISP650P06NM	-60	-3.7	65		-39		P
	BSP170I	-60	-3.2	260		-10.8		P
	BSP171I	-60	-3.2	250	310	-13.9	-6.7	P



Gate driver ICs

Every switch needs a driver

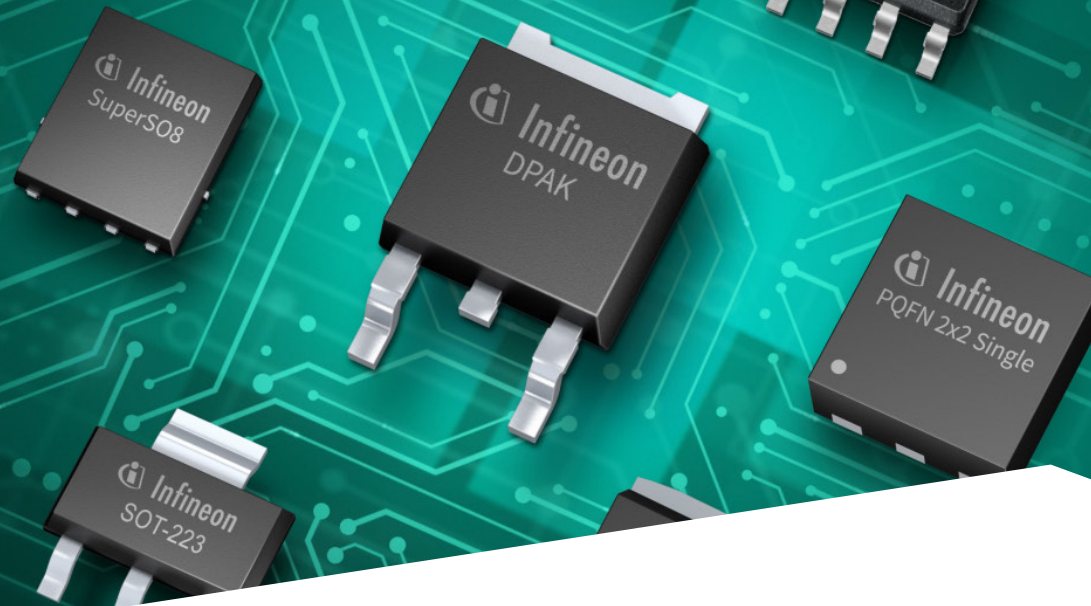
Gate driver ICs are the complementary solutions to Infineon's MOSFET portfolio. Leveraging the application expertise and advanced technologies of Infineon, the industrial and general purpose gate driver ICs are well suited for many applications such as industrial motor drives, solar inverters, UPS and switch mode power supplies. Infineon offers a comprehensive portfolio with a variety of configurations, voltage classes, isolation levels and package options.

More detailed information on our gate driver IC portfolio can be found here:

www.infineon.com/gatedriver

www.infineon.com/eicedriver





Selection, simulation, and design

Tools and resources



Simulation

One of our simulation models may facilitate your search for the best-matching Infineon MOSFETs.

[Access here](#)



App note

Simulation models describe the characteristics of typical devices. Although they cannot model exact device performance under all conditions, nor are they intended to replace breadboarding for final verification, they can be a useful tool in evaluating device performance. Get to know more about different types of models for MOSFET devices.

[Download application note](#)



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