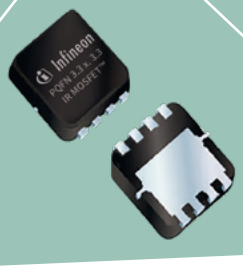


Product brief

30 V to 100 V planar MOSFET family

Ideally suited to large SOA and linear-mode applications

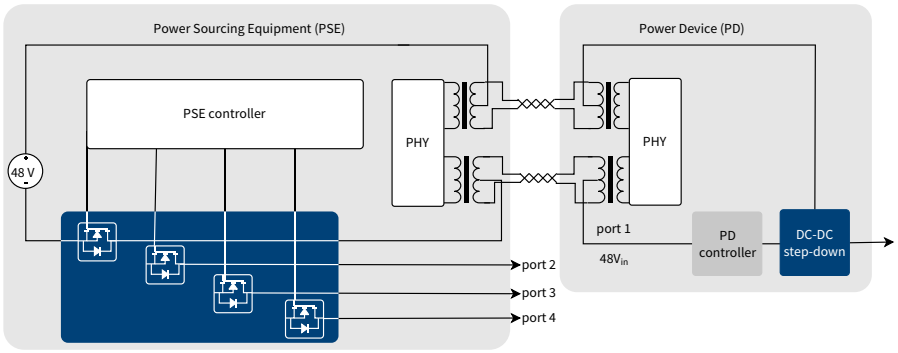
Infineon's IR MOSFET™ portfolio of planar devices complements its successful trench-based StrongIRFET™ and OptiMOS™ technologies by offering a range of 30 V to 100 V devices tailored to large Safe Operating Area (SOA) and linear-mode applications. Typical applications include Power over Ethernet+ (PoE+), LED power, DC fan, industrial SMPS, Uninterruptible Power Supplies (UPS) and servo motors.

Modern trench MOSFETs strive for the lowest $R_{DS(on)}$, Q_g and Q_{gd} to meet today's high-speed switching applications, whereas planar devices sacrifice die size and $R_{DS(on)}$ in order to achieve high current-carrying capability and a large SOA.

The IRFHM3911 is specifically targeted at PoE+ applications where small size, large SOA and high current are key customer requirements. The maximum SOA for this device is 2.5 A at 50 V, 1 ms. This is a 280 percent improvement over a similarly specified trench-based device!

For large SOA telecom hot-swap applications, see Infineon's OptiMOS™ Linear FET solutions.

Typical application – PoE+ for power sourcing equipment



Key features

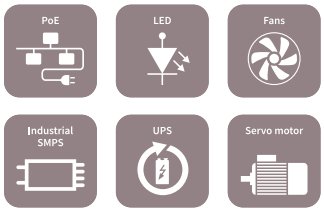
- Breakdown voltages from 30 V to 100 V
- Large Safe Operating Area (SOA) and high current-carrying capability
- Available in both standard and logic-level gate drive
- Industry standard PQFN 3.3 x 3.3, DPAK, D²PAK, TO-220 and TO-247 packages
- Product validation according to JEDEC standard
- Optimized for broadest availability from distribution partners

Benefits

- Supports a wide variety of applications
- Increased ruggedness
- Gate-drive flexibility
- Multi-vendor compatibility

Applications

- Power over Ethernet+ (PoE+)
- LED power
- DC fan
- Industrial SMPS
- Uninterruptible Power Supply (UPS)
- Servo motor



www.infineon.com/powermosfet-20v-300v

30 V to 100 V planar IR MOSFET™ devices

Product	V_{DS} [V]	$R_{DS(on)}$ max at V_{GS} = 10 V [mΩ]	Q_g [nC]	I_D [A]	$V_{GS(th)}$	Package
IRL3713STRLPBF	30	3.0	75.0	260	LL	D²PAK
IRF1404STRLPBF	40	4.0	160.0	162	NL	D²PAK
IRL1404STRLPBF	40	4.0	93.3	160	LL	D²PAK
IRF1404PBF	40	4.0	131.0	202	NL	TO-220
IRF2805STRLPBF	55	4.7	150.0	135	NL	D²PAK
IRF1405STRLPBF	55	5.3	170.0	131	NL	D²PAK
IRL2505STRLPBF	55	8.0	160.0	104	LL	D²PAK
IRF1405PBF	55	5.3	170.0	169	NL	TO-220
IRFP1405PBF	55	5.3	120.0	160	NL	TO-247
IRF3808STRLPBF	75	7.0	150.0	106	NL	D²PAK
IRFR2407TRLPBF	75	26.0	74.0	42	NL	DPAK
IRFP2907PBF	75	4.5	410.0	209	NL	TO-247
IRF3610STRLPBF	100	11.6	100.0	103	NL	D²PAK
IRF8010STRLPBF	100	15.0	81.0	80	NL	D²PAK
IRFR3411TRPBF	100	44.0	48.0	32	NL	DPAK
IRLR3410TRLPBF	100	105.0	22.7	17	LL	DPAK
IRFHM3911TRPBF	100	115.0	17.0	20	NL	PQFN 3.3x3.3
IRFP3710PBF	100	25.0	66.7	57	NL	TO-247

***$V_{GS(th)}$: NL = 10 V, LL = 4.5 V**

Published by
Infineon Technologies AG
81726 Munich, Germany

Order Number: B131-I0788-V1-7600-NA-EC-P
Date: 03 / 2019