



# OptiMOS™ 和 StrongIRFET™ MOSFETS

## 选型指南 2019

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# OptiMOS™ 和 StrongIRFET™

## 20-300 V MOSFET N-沟道功率MOSFET

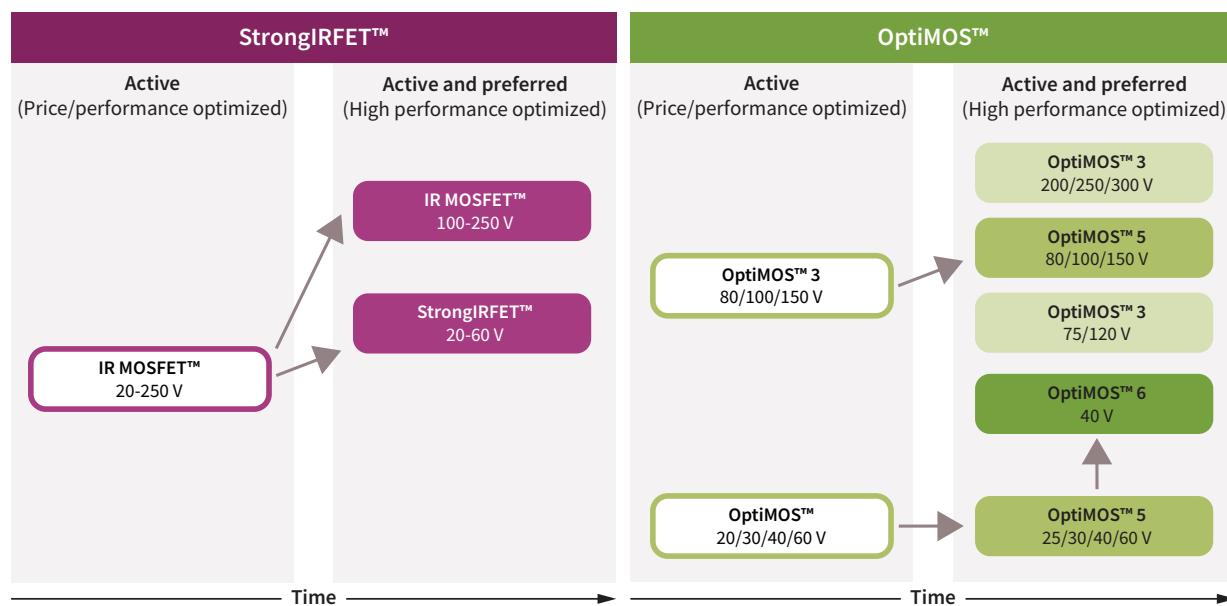
英飞凌半导体的设计初衷是实现更高的效率、功率密度和成本效益。全系列 OptiMOS™ 和 StrongIRFET™ 功率 MOSFET 实现了许多应用领域的创新和性能提升，如开关式电源 (SMPS)、电池供电应用、电机控制和驱动、逆变器、计算机 (电源)。

英飞凌高度创新的 OptiMOS™ 和 StrongIRFET™ 系列始终满足电源系统设计中关键规格的最高质量和性能需要，如导通电阻 ( $R_{DS(on)}$ ) 和 优值(FOM)。

OptiMOS™ 功率MOSFET性能一流，产品特征包括超低  $R_{DS(on)}$ ，以及高开关频率应用的低充电负荷。StrongIRFET™ 功率MOSFET专为驱动应用而设计，对于低开关频率的设计以及需要高载流能力的设计非常理想。

| StrongIRFET™  | OptiMOS™   |
|---|--|
| 超高性价比   | 一流的技术  |
| 专为工业应用而设计   | 专为高性能应用而设计   |
| 针对低开关频率而优化  | 针对高开关频率而优化   |
| 高载流能力   | 行业最佳品质因数   |
| 粗糙硅   | 高效率和功率密度   |
|  |  |

## 技术开发和产品系列定位

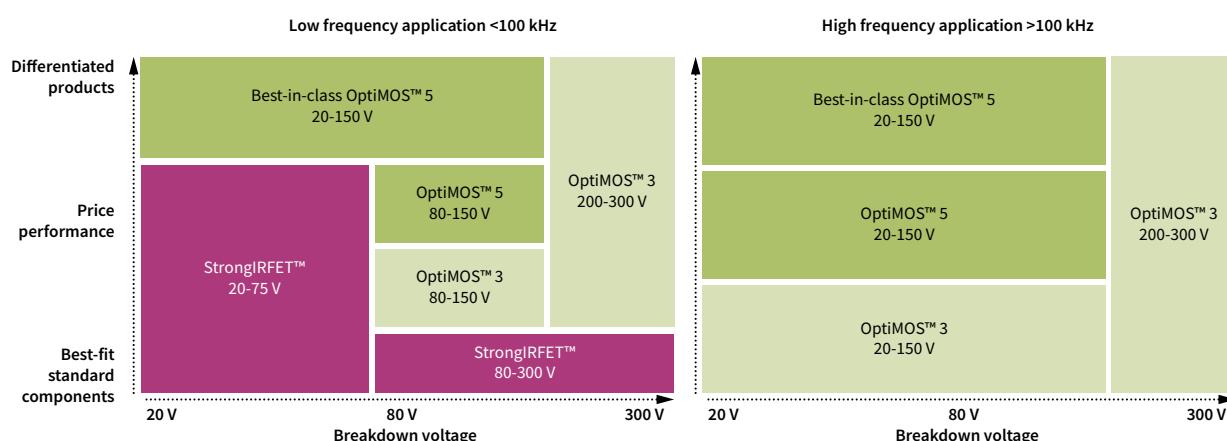


英飞凌功率MOSFET 20-300 V 产品组合分为“积极首选组合”，即能够实现一流性能的最新技术，以及“积极组合”，由能够实现广泛产品组合的成熟技术组成。

OptiMOS™ 6 功率MOSFET 40 V 是OptiMOS™ 产品系列的新成员，可使用 SuperSO8 或 PQFN 3.3 x 3.3 封装。当需要产出一流(BiC)的产品并实现各种输出功率的高效率时，该技术是完美解决方案。对于其他电压等级，从 25 V 到 150 V，OptiMOS™ 5 代表市场上的最新一代产品，提供一流(BiC)解决方案或价格/性能解决方案。对于高频率应用，OptiMOS™ 3 功率MOSFET 40-50 V 作为标准部件补充了产品组合。积极和首选的 OptiMOS™ 3 功率MOSFET 75-120 V 和 200-300 V 是低频或高频应用的最佳匹配组合，涉及各种产品，从 BiC 到标准零件。

当 BiC 性能属于非必要因素，而成本是更重要的因素时，建议 20-300 V 应用采用 StrongIRFET™ Gen. 1。

以下图表按照开关频率总结最佳匹配标准部件、价格/性能和不同产品的推荐技术。



## 应用和电压等级指南

OptiMOS™ 和 StrongIRFET™ 组合，包括 20 至 300 V MOSFET，可满足各种需要，从低开关频率到高开关频率。下表为针对每个主要子应用和电压等级而推荐的 OptiMOS™ 或 StrongIRFET™ 产品的指南概要。

| 推荐电压  |                                 | 20-30 V      | 40 V | 60 V | 75-80 V | 100 V | 135-150 V | 200 V | 250 V | 300 V |
|-------|---------------------------------|--------------|------|------|---------|-------|-----------|-------|-------|-------|
| 电池供电  | 低功率<br>电动工具、多旋翼<br>飞机、电池、工业驱动装置 | OptiMOS™     | ✓    | ✓    | ✓       | ✓     |           |       |       |       |
|       | StrongIRFET™                    | ✓            | ✓    | ✓    | ✓       |       |           |       |       |       |
|       | 大功率<br>(LEV, LSEV)              | OptiMOS™     |      |      | ✓       | ✓     | ✓         | ✓     | ✓     |       |
|       | StrongIRFET™                    |              |      | ✓    | ✓       | ✓     | ✓         | ✓     | ✓     |       |
| 逆变器   | 太阳能                             | OptiMOS™     |      |      | ✓       | ✓     | ✓         | ✓     |       |       |
|       |                                 | StrongIRFET™ |      |      | ✓       | ✓     | ✓         |       |       |       |
|       | 慢速切换                            |              |      |      |         |       |           |       |       |       |
|       | 不间断电源                           | OptiMOS™     | ✓    | ✓    | ✓       | ✓     | ✓         | ✓     | ✓     | ✓     |
|       |                                 | StrongIRFET™ | ✓    | ✓    | ✓       | ✓     | ✓         | ✓     | ✓     | ✓     |
|       | 快速切换                            |              |      |      |         |       |           |       |       |       |
|       | 脱机                              | OptiMOS™     | ✓    | ✓    | ✓       | ✓     | ✓         | ✓     | ✓     | ✓     |
|       |                                 | StrongIRFET™ | ✓    | ✓    | ✓       | ✓     | ✓         | ✓     | ✓     | ✓     |
|       | 适配器/<br>充电器                     | OptiMOS™     |      | ✓    | ✓       | ✓     | ✓         |       |       |       |
| SMPS  |                                 | StrongIRFET™ |      | ✓    | ✓       | ✓     | ✓         |       |       |       |
|       | 计算机电源                           | OptiMOS™     |      | ✓    | ✓       |       |           |       |       |       |
|       |                                 | StrongIRFET™ |      | ✓    | ✓       |       |           |       |       |       |
|       | 液晶电视                            | OptiMOS™     |      |      | ✓       | ✓     | ✓         |       |       |       |
|       |                                 | StrongIRFET™ |      |      | ✓       | ✓     | ✓         |       |       |       |
|       | 服务器                             | OptiMOS™     |      | ✓    | ✓       | ✓     |           |       |       |       |
|       |                                 | StrongIRFET™ |      | ✓    | ✓       | ✓     |           |       |       |       |
| AC-DC | OptiMOS™                        |              |      |      | ✓       | ✓     | ✓         | ✓     |       |       |
|       | StrongIRFET™                    |              |      |      | ✓       | ✓     |           |       |       |       |
| 电信    | OptiMOS™                        | ✓            | ✓    | ✓    | ✓       | ✓     | ✓         |       |       |       |
|       | StrongIRFET™                    | ✓            | ✓    | ✓    | ✓       | ✓     |           |       |       |       |

## 小体积高性能封装

| TO-247  | TO-220  | D <sup>2</sup> PAK  | D <sup>2</sup> PAK 7-针  | TO-无铅   |
|---|---|---|---|---|
|  |  |  |  |  |
| 针对高功率应用和高电流能力而优化  |   |   |   |   |
| 高度 [mm]   | 5.0   | 4.4   | 4.4   | 2.3   |
| 外形 [mm]   | 40.15 x 15.9  | 29.5 x 10.0   | 15.0 x 10.0   | 11.68 x 9.9   |
| 电流能力 [A]  | 195.0   | 195.0   | 195.0   | 240.0   |
| 热阻 $R_{thJC}$ [K/W]   | 2.0   | 0.5   | 0.5   | 0.4   |

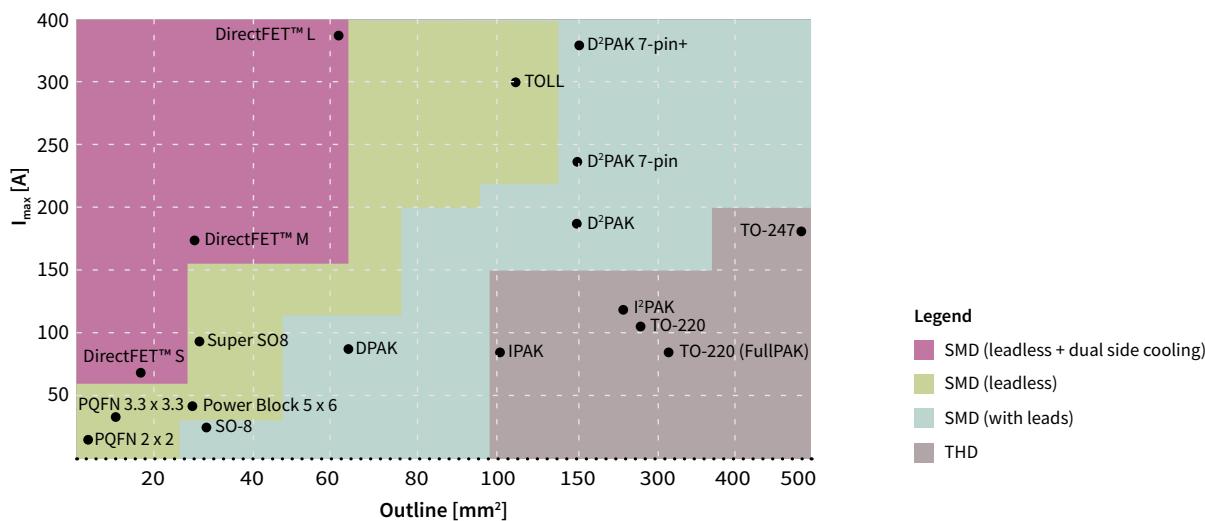
| SuperSO8   | 电源模块   | PQFN 3.3 x 3.3   | PQFN 2 x 2   | DirectFET™   |
|--|--|--|--|--|
|  |  |  |  |  |
| 可实现最高效率和功率管理   | 设计体积显著减小   | 可实现最高效率和功率管理   | 大大节省空间   | 占用空间小, 热性能最佳   |
| 高度 [mm]  | 1.0  | 1.0  | 1.0  | 0.9  |
| 外形 [mm]  | 5.15 x 6.15  | 5.0 x 6.0  | 3.3 x 3.3  | 2.0 x 2.0  |
| 电流能力 [A]   | 100.0  | 50.0   | 40.0   | 18.5   |
| 热阻 $R_{thJC}$ [K/W]  | 0.8  | 1.5  | 3.2  | 11.1   |
|  |  |  |  | 0.5  |

## 独立和集成封装

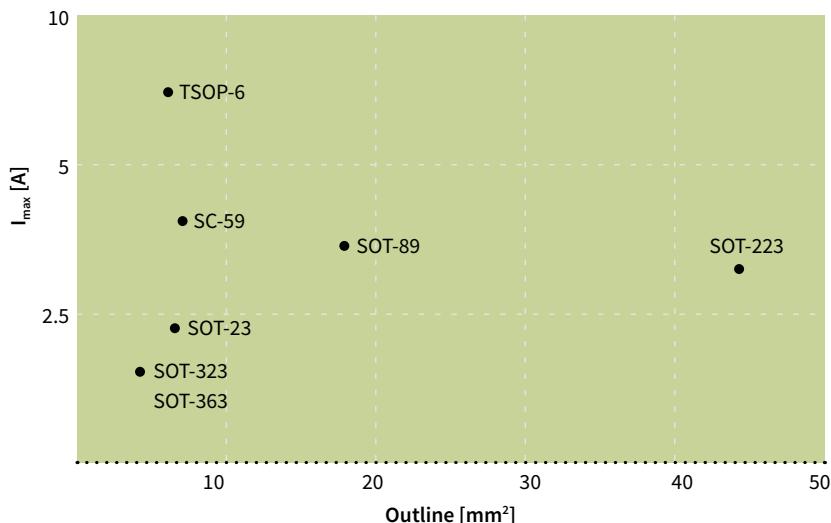
不同封装形式的 OptiMOS™ 和 StrongIRFET™ 技术均可提供, 从而满足更高载流能力和大大节省空间的需求。

广泛的产品组合可减小占用空间、增大电流额定值、优化热性能。表面贴装无铅装置可减小占用空间, 而通孔封装拥有额定功率高的特征。

而且, 英飞凌提供如DirectFET™ and TO-无铅的创新型封装。DirectFET™ 寄生电阻较低, 专为高频率应用而设计。该封装具有三种不同的尺寸: 小型、中型和大型。TO-无铅经优化后可处理最大 300 A 的电流, 增加了功率密度, 大大减少了占用空间。



## 小信号和小功率MOSFET。



小信号和小功率MOSFET拥有八种工业标准封装类型, 从最大的 SOT-223 到最小的 SOT-363。

产品有单配置、双配置、互补配置, 用途广泛, 包括电池保护、LED 照明、低压驱动装置和直流-直流变换器。



## OptiMOS™ 和 StrongIRFET™ 20 V (超级) 逻辑电平

| $R_{DS(on)} \text{ max } @ V_{GS} = 10 \text{ V}$ [mΩ] | TO-252 (DPAK)                                  | DirectFET™  | PQFN 2 x 2 | PQFN 3.3 x 3.3 | SuperSO8  | SO-8   | SOT-23  |
|--|--|---|------------|----------------|---|--|---|
| < 1  |  | IRL6283MTRPBF<br>$R_{DS(on)} = 0.65 \text{ mΩ}$               |            |                | IRFH6200TRPBF<br>$R_{DS(on)} = 0.99 \text{ mΩ}$ |  |   |
| 2-4  | IRLR6225TRPBF<br>$R_{DS(on)} = 4.0 \text{ mΩ}$ | IRL6297SDTRPBF**<br>$R_{DS(on)} = 3.8 \text{ mΩ}; \text{ 双}$  |            |                | BSC026N02KS G<br>$R_{DS(on)} = 2.6 \text{ mΩ}$  | IRF6201TRPBF<br>$R_{DS(on)} = 2.45 \text{ mΩ}$ |   |
|  |  |   |            |                | IRLH6224TRPBF<br>$R_{DS(on)} = 3.0 \text{ mΩ}$  |  |   |
| 4-10   |  |   |            |                | BSC046N02KS G<br>$R_{DS(on)} = 4.6 \text{ mΩ}$  | IRF3717<br>$R_{DS(on)} = 4.4 \text{ mΩ}$       |   |
| > 10   |  | IRLHS6242TRPBF<br>$R_{DS(on)} = 11.7 \text{ mΩ}$              |            |                |   |  | IRLML6244 <sup>1)</sup> ***<br>$R_{DS(on)} = 21 \text{ mΩ}$ |
|  |  | IRLHS6276TRPBF**<br>$R_{DS(on)} = 45.0 \text{ mΩ}; \text{ 双}$ |            |                |   |  | IRLML6246 <sup>1)</sup> ***<br>$R_{DS(on)} = 46 \text{ mΩ}$ |

## OptiMOS™ 和 StrongIRFET™ 25 V 逻辑电平



| $R_{DS(on)} \text{ max } @ V_{GS} = 10 \text{ V}$ [mΩ] | DirectFET™                                       | PQFN 2 x 2                                | PQFN 3.3 x 3.3  | SuperSO8  | SO-8                                     | SOT-23                                    |
|--|--|---|---|---|--|---|
| < 1  | IRF6718L2TRPBF<br>$R_{DS(on)} = 0.7 \text{ mΩ}$  |   |   | BSC009NE2LS<br>$R_{DS(on)} = 0.9 \text{ mΩ}$      |  |   |
|  | BSB008NE2LX<br>$R_{DS(on)} = 0.8 \text{ mΩ}$     |   | BSZ009NE2LS5 <sup>2)</sup><br>$R_{DS(on)} = 0.9 \text{ mΩ}$ | BSC009NE2LS5<br>$R_{DS(on)} = 0.9 \text{ mΩ}$     |  |   |
|  |  |   |   | BSC009NE2LS5I**<br>$R_{DS(on)} = 0.95 \text{ mΩ}$ |  |   |
| 1-2  | IRF6898MTRPBF**<br>$R_{DS(on)} = 1.1 \text{ mΩ}$ |   | BSZ010NE2LS5 <sup>2)</sup><br>$R_{DS(on)} = 1.0 \text{ mΩ}$ | BSC010NE2LS<br>$R_{DS(on)} = 1.0 \text{ mΩ}$      |  |   |
|  | BSB012NE2LXI**<br>$R_{DS(on)} = 1.2 \text{ mΩ}$  |   | BSZ011NE2LS5 <sup>2)</sup><br>$R_{DS(on)} = 1.1 \text{ mΩ}$ | BSC010NE2LSI**<br>$R_{DS(on)} = 1.05 \text{ mΩ}$  |  |   |
|  | IRF6717MTRPBF<br>$R_{DS(on)} = 1.25 \text{ mΩ}$  |   | BSZ013NE2LS5I**<br>$R_{DS(on)} = 1.3 \text{ mΩ}$            | BSC014NE2LSI**<br>$R_{DS(on)} = 1.4 \text{ mΩ}$   |  |   |
|  | IRF6894MTRPBF**<br>$R_{DS(on)} = 1.3 \text{ mΩ}$ |   | BSZ014NE2LS5I***<br>$R_{DS(on)} = 1.45 \text{ mΩ}$          | IRFH5250D<br>$R_{DS(on)} = 1.4 \text{ mΩ}$        |  |   |
|  | BSB013NE2LXI**<br>$R_{DS(on)} = 1.3 \text{ mΩ}$  |   | BSZ017NE2LS5I**<br>$R_{DS(on)} = 1.7 \text{ mΩ}$            | BSC015NE2LS5I**<br>$R_{DS(on)} = 1.5 \text{ mΩ}$  |  |   |
|  | IRF6797MTRPBF**<br>$R_{DS(on)} = 1.4 \text{ mΩ}$ |   | BSZ018NE2LS<br>$R_{DS(on)} = 1.8 \text{ mΩ}$                | BSC018NE2LS<br>$R_{DS(on)} = 1.8 \text{ mΩ}$      |  |   |
|  | IRF6716M<br>$R_{DS(on)} = 1.6 \text{ mΩ}$        |   | BSZ018NE2LSI**<br>$R_{DS(on)} = 1.8 \text{ mΩ}$             | BSC018NE2LSI**<br>$R_{DS(on)} = 1.8 \text{ mΩ}$   |  |   |
|  | IRF6715MTRPBF<br>$R_{DS(on)} = 1.6 \text{ mΩ}$   |   |   |   |  |   |
|  | IRF6893MTRPBF**<br>$R_{DS(on)} = 1.6 \text{ mΩ}$ |   |   |   |  |   |
|  | IRF6892STRPBF**<br>$R_{DS(on)} = 1.7 \text{ mΩ}$ |   |   |   |  |   |
|  | IRF6795MTRPBF**<br>$R_{DS(on)} = 1.8 \text{ mΩ}$ |   |   |   |  |   |
|  | IRF6714MTRPBF<br>$R_{DS(on)} = 2.1 \text{ mΩ}$   |   | BSZ031NE2LS5<br>$R_{DS(on)} = 3.1 \text{ mΩ}$               | BSC024NE2LS<br>$R_{DS(on)} = 2.4 \text{ mΩ}$      |  |   |
|  | BSF030NE2LQ<br>$R_{DS(on)} = 3.0 \text{ mΩ}$     |   | BSZ033NE2LS5<br>$R_{DS(on)} = 3.3 \text{ mΩ}$               | BSC026NE2LS5<br>$R_{DS(on)} = 2.6 \text{ mΩ}$     | IRF8252<br>$R_{DS(on)} = 2.7 \text{ mΩ}$ |   |
| 2-4  | BSF035NE2LQ<br>$R_{DS(on)} = 3.5 \text{ mΩ}$     |   | BSZ036NE2LS<br>$R_{DS(on)} = 3.6 \text{ mΩ}$                | BSC032NE2LS<br>$R_{DS(on)} = 3.2 \text{ mΩ}$      |  |   |
|  | IRF6811STRPBF**<br>$R_{DS(on)} = 3.7 \text{ mΩ}$ |   | BSZ037NE2LS5 <sup>2)</sup><br>$R_{DS(on)} = 3.7 \text{ mΩ}$ |   |  |   |
|  |  |   | BSZ039NE2LS5 <sup>2)</sup><br>$R_{DS(on)} = 3.9 \text{ mΩ}$ |   |  |   |
|  |  |   |   |   |  |   |
| 4-10   | IRF6802SD<br>$R_{DS(on)} = 4.2 \text{ mΩ}$       |   |   |   |  |   |
|  | IRF6710S2TRPBF<br>$R_{DS(on)} = 4.5 \text{ mΩ}$  |   | IRFHM8228TRPBF<br>$R_{DS(on)} = 5.2 \text{ mΩ}$             | BSC050NE2LS<br>$R_{DS(on)} = 5.0 \text{ mΩ}$      |  |   |
|  | IRF6712STRPBF<br>$R_{DS(on)} = 4.9 \text{ mΩ}$   |   | BSZ060NE2LS<br>$R_{DS(on)} = 6.0 \text{ mΩ}$                |   |  |   |
|  | IRF6810STRPBF**<br>$R_{DS(on)} = 5.2 \text{ mΩ}$ |   | IRFHM8235TRPBF<br>$R_{DS(on)} = 7.7 \text{ mΩ}$             |   |  |   |
| > 10   |  | IRFHS8242<br>$R_{DS(on)} = 13 \text{ mΩ}$ |   |   |  | IRFML8244<br>$R_{DS(on)} = 24 \text{ mΩ}$ |

[www.infineon.com/powermosfet-12V-300V](http://www.infineon.com/powermosfet-12V-300V)

\* 针对谐振应用优化 (如, LLC 变流器)

\*\* 单片集成类肖特基二极管

\*\*\*  $R_{DS(on)} \text{ max } @ V_{GS} = 4.5 \text{ V}$

<sup>1)</sup> 2.5 V<sub>GS</sub> 驱动能力

<sup>2)</sup> 即将发布

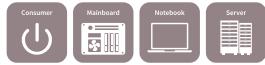


## OptiMOS™ 和 StrongIRFET™ 25 V/30 V, 功率级 3 x 3 和 5 x 6



| 零件编号       | 封装          | 单片集成类肖特基<br>二极管 | BV <sub>DSS</sub> [V] | R <sub>DS(on)</sub> , max, [ mΩ ] @ V <sub>GS</sub> =4.5 V max. |     | Q <sub>g</sub> [nC] @ V <sub>GS</sub> =4.5 V 类型 |      |
|------------|-------------|-----------------|-----------------------|---|-----|---|------|
|            |             |                 |                       | 高压侧   | 低压侧 | 高压侧   | 低压侧  |
| BSZ0910ND  | TISON 3 x 3 | –               | 30                    | 13  | 13  | 4.0   | 4.0  |
| BSZ0909ND  | TISON 3 x 3 | –               | 30                    | 25  | 25  | 1.8   | 1.8  |
| BSC0910NDI | TISON 5 x 6 | ✓               | 25                    | 5.9   | 1.6 | 7.7   | 25.0 |
| BSC0911ND  | TISON 5 x 6 | –               | 25                    | 4.8   | 1.7 | 7.7   | 25.0 |
| BSC0921NDI | TISON 5 x 6 | ✓               | 30                    | 7.0   | 2.1 | 5.8   | 21.0 |
| BSC0923NDI | TISON 5 x 6 | ✓               | 30                    | 7.0   | 3.7 | 5.2   | 12.2 |
| BSC0924NDI | TISON 5 x 6 | ✓               | 30                    | 7.0   | 5.2 | 5.2   | 8.6  |
| BSC0925ND  | TISON 5 x 6 | –               | 30                    | 6.4   | 6.4 | 5.2   | 6.7  |

## OptiMOS™ 和 StrongIRFET™ 25 V/30 V, 电源模块 5 x 6 和 5 x 4



| 零件编号           | 封装          | 单片集成类肖特基<br>二极管 | BV <sub>DSS</sub> [V] | R <sub>DS(on)</sub> , max, [ mΩ ] @ V <sub>GS</sub> =4.5 V max. |     | Q <sub>g</sub> [nC] @ V <sub>GS</sub> =4.5 V 类型 |      |
|----------------|-------------|-----------------|-----------------------|---|-----|---|------|
|                |             |                 |                       | 高压侧   | 低压侧 | 高压侧   | 低压侧  |
| BSG0810NDI     | TISON 5 x 6 | ✓               | 25                    | 4.0   | 1.2 | 5.6   | 16.0 |
| BSG0811ND      | TISON 5 x 6 | –               | 25                    | 4.0   | 1.1 | 5.6   | 20.0 |
| BSG0813NDI     | TISON 5 x 6 | ✓               | 25                    | 4.0   | 1.7 | 5.6   | 12.0 |
| IRFH4257DTRPBF | PQFN 5 x 4  | ✓               | 25                    | 4.7   | 1.8 | 9.7   | 23.0 |



## OptiMOS™ 和 StrongIRFET™ 30 V 逻辑电平

| $R_{DS(on)}$ max.<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                            | TO-263<br>(D <sup>2</sup> PAK)                | TO-263<br>(D <sup>2</sup> PAK 7-针)          | TO-220                                     |
|---|---|---|---|--|
| < 1   |   |   | IPB009N03L G<br>$R_{DS(on)}=0.95\text{ mΩ}$ |  |
| 1-2   |   | IRLS3813TRLPBF<br>$R_{DS(on)}=1.95\text{ mΩ}$ |   | IRLB8313PBF<br>$R_{DS(on)}=1.95\text{ mΩ}$ |
| 2-4   | IRLR8743TRPBF<br>$R_{DS(on)}=3.1\text{ mΩ}$ |   |   | IRLB8314PBF<br>$R_{DS(on)}=2.4\text{ mΩ}$  |
|   | IPD031N03L G<br>$R_{DS(on)}=3.1\text{ mΩ}$  |   |   | IRL3713PBF<br>$R_{DS(on)}=3.0\text{ mΩ}$   |
| 4-10  |   | IPB034N03L G<br>$R_{DS(on)}=3.4\text{ mΩ}$    |   | IRLB8743PBF<br>$R_{DS(on)}=3.2\text{ mΩ}$  |
|   | IPD040N03L G<br>$R_{DS(on)}=4.0\text{ mΩ}$  |   |   | IPPO34N03L G<br>$R_{DS(on)}=3.4\text{ mΩ}$ |
| 10-25   | IPD050N03L G<br>$R_{DS(on)}=5.0\text{ mΩ}$  | IPB042N03L G<br>$R_{DS(on)}=4.2\text{ mΩ}$    |   | IPPO42N03L G<br>$R_{DS(on)}=4.2\text{ mΩ}$ |
|   | IRLR8726TRPBF<br>$R_{DS(on)}=5.8\text{ mΩ}$ | IPB055N03L G<br>$R_{DS(on)}=5.5\text{ mΩ}$    |   | IRLB8748PBF<br>$R_{DS(on)}=4.8\text{ mΩ}$  |
|   | IPD060N03L G<br>$R_{DS(on)}=6.0\text{ mΩ}$  | IPB065N03L G<br>$R_{DS(on)}=6.5\text{ mΩ}$    |   | IPPO55N03L G<br>$R_{DS(on)}=5.5\text{ mΩ}$ |
|   | IPD075N03L G<br>$R_{DS(on)}=7.5\text{ mΩ}$  | IPB080N03L G<br>$R_{DS(on)}=8.0\text{ mΩ}$    |   | IRL8113PBF<br>$R_{DS(on)}=6.0\text{ mΩ}$   |
|   | IRLR8729TRPBF<br>$R_{DS(on)}=8.9\text{ mΩ}$ |   |   | IRLB8721PBF<br>$R_{DS(on)}=8.7\text{ mΩ}$  |
|   | IPD090N03L G<br>$R_{DS(on)}=9.0\text{ mΩ}$  |   |   |  |
| 10-25   | IPD135N03L G<br>$R_{DS(on)}=13.5\text{ mΩ}$ |   |   |  |
|   | IRLR3103<br>$R_{DS(on)}=19.0\text{ mΩ}$     |   |   |  |



## OptiMOS™ 和 StrongIRFET™ 30 V 逻辑电平

| $R_{DS(on)}$ max.<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | 裸芯片<br>( $R_{DS(on)}$ 典型)                     | DirectFET™                                 | PQFN 3.3 x 3.3 | SuperSO8                                     | TO-无铅                                    |
|---|---|--|----------------|--|--|
| < 1   |   |  |                |  | IPT004N03L<br>$R_{DS(on)}=0.4\text{ mΩ}$ |
| 1-2   |   |  |                | IRFH8303TRPBF<br>$R_{DS(on)}=1.1\text{ mΩ}$  |  |
|   |   |  |                | BSC011N03LS<br>$R_{DS(on)}=1.1\text{ mΩ}$    |  |
|   |   |  |                | BSC011N03LSI**<br>$R_{DS(on)}=1.1\text{ mΩ}$ |  |
|   |   |  |                | BSC011N03LST<br>$R_{DS(on)}=1.1\text{ mΩ}$   |  |
|   |   |  |                | IRFH8307TRPBF<br>$R_{DS(on)}=1.3\text{ mΩ}$  |  |
|   | IRF8301MTRPBF<br>$R_{DS(on)}=1.5\text{ mΩ}$   |  |                | BSC0500NSI**<br>$R_{DS(on)}=1.3\text{ mΩ}$   |  |
|   |   | BSZ0500NSI**<br>$R_{DS(on)}=1.5\text{ mΩ}$ |                | BSC014N03LS G<br>$R_{DS(on)}=1.4\text{ mΩ}$  |  |
|   | IRF8302MTRPBF**<br>$R_{DS(on)}=1.8\text{ mΩ}$ | BSZ019N03LS<br>$R_{DS(on)}=1.9\text{ mΩ}$  |                | BSC0901NS<br>$R_{DS(on)}=1.9\text{ mΩ}$      |  |
|   |   | BSZ0901NS<br>$R_{DS(on)}=2.0\text{ mΩ}$    |                | BSC0501NSI**<br>$R_{DS(on)}=1.9\text{ mΩ}$   |  |
|   | IPC055N03L3***<br>$R_{DS(on)}=2.7\text{ mΩ}$  | BSZ0501NSI**<br>$R_{DS(on)}=2.0\text{ mΩ}$ |                | BSC0901NSI**<br>$R_{DS(on)}=2.0\text{ mΩ}$   |  |

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\*\* 单片集成类肖特基二极管

\*\*\*  $R_{DS(on)}$  典型 @  $V_{GS}=4.5\text{ V}$



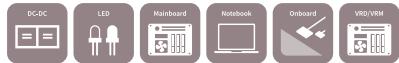
## OptiMOS™ 和 StrongIRFET™ 30 V 逻辑电平

| $R_{DS(on),max}$<br>@ $V_{GS}=10V$<br>[mΩ] | 裸芯片<br>( $R_{DS(on)}$ 典型)                          | DirectFET™   | PQFN 3.3 x 3.3                                    | SuperSO8  | SO-8   | SO-8<br>双   | PQFN 2 x 2 |
|--|--|--|---|---|--|---|------------|
| 2-4  |  | IRF8304MTRPBF<br>$R_{DS(on)}=2.2\text{ m}\Omega$   | BSZ0901NSI*<br>$R_{DS(on)}=2.1\text{ m}\Omega$    | BSC020N03LS G<br>$R_{DS(on)}=2.0\text{ m}\Omega$              |  |   |            |
|  | IPC042N03L3****<br>$R_{DS(on)}=3.7\text{ m}\Omega$ |  | IRLHM620TRPBF<br>$R_{DS(on)}=2.5\text{ m}\Omega$  | BSC0502NSI**<br>$R_{DS(on)}=2.4\text{ m}\Omega$               |  |   |            |
|  |  | IRF8306MTRPBF**<br>$R_{DS(on)}=2.5\text{ m}\Omega$ | BSZ0902NS<br>$R_{DS(on)}=2.6\text{ m}\Omega$      | BSC025N03LS G<br>$R_{DS(on)}=2.5\text{ m}\Omega$              |  |   |            |
|  |  |  |   | BSC0902NS<br>$R_{DS(on)}=2.6\text{ m}\Omega$                  |  |   |            |
|  |  |  |   | IRF8252TRPBF<br>$R_{DS(on)}=2.7\text{ m}\Omega$               |  |   |            |
|  |  |  |   | BSZ0902NSI**<br>$R_{DS(on)}=2.8\text{ m}\Omega$               | BSC0902NSI**<br>$R_{DS(on)}=2.8\text{ m}\Omega$                      | IRF8788TRPBF<br>$R_{DS(on)}=2.8\text{ m}\Omega$   |            |
|  |  |  |   | BSZ0502NSI**<br>$R_{DS(on)}=2.8\text{ m}\Omega$               | IRFH8316TRPBF<br>$R_{DS(on)}=2.95\text{ m}\Omega$                    |   |            |
|  |  |  |   | BSC030N03LS G<br>$R_{DS(on)}=3.0\text{ m}\Omega$              |  |   |            |
|  |  |  |   | BSZ0503NSI**<br>$R_{DS(on)}=3.4\text{ m}\Omega$               | IRFH8318TRPBF<br>$R_{DS(on)}=3.1\text{ m}\Omega$                     |   |            |
|  |  |  |   | IRLHM630***<br>$R_{DS(on)}=3.5\text{ m}\Omega$                | BSC0503NSI**<br>$R_{DS(on)}=3.2\text{ m}\Omega$                      | IRF7862TRPBF<br>$R_{DS(on)}=3.3\text{ m}\Omega$   |            |
|  |  |  |   | BSZ035N03LS G<br>$R_{DS(on)}=3.5\text{ m}\Omega$              | BSC034N03LS G<br>$R_{DS(on)}=3.4\text{ m}\Omega$                     | IRF8734TRPBF<br>$R_{DS(on)}=3.5\text{ m}\Omega$   |            |
| 4-10                                       |  |  |   | IRFHM830  | BSC0504NSI**<br>$R_{DS(on)}=3.8\text{ m}\Omega$                      |   |            |
|  |  |  |   | BSZ0904NSI**<br>$R_{DS(on)}=4.0\text{ m}\Omega$               | BSC0904NSI**<br>$R_{DS(on)}=3.7\text{ m}\Omega$                      |   |            |
|  |  |  |   | IRFHM830D<br>$R_{DS(on)}=4.3\text{ m}\Omega$                  | IRFH8324TRPBF<br>$R_{DS(on)}=4.1\text{ m}\Omega$                     |   |            |
|  |  |  |   | BSZ0506NS<br>$R_{DS(on)}=4.4\text{ m}\Omega$                  | BSC042N03LS G<br>$R_{DS(on)}=4.2\text{ m}\Omega$                     |   |            |
|  |  |  |   | IRFHM8326TRPBF<br>$R_{DS(on)}=4.7\text{ m}\Omega$             | BSC0906NS<br>$R_{DS(on)}=4.5\text{ m}\Omega$                         |   |            |
|  |  |  |   |   | IRFH8321TRPBF<br>$R_{DS(on)}=4.9\text{ m}\Omega$                     |   |            |
|  | IPC028N03L3<br>$R_{DS(on)}=5.0\text{ m}\Omega$     |  | BSZ050N03LS G<br>$R_{DS(on)}=5.0\text{ m}\Omega$  | IRFH8325TRPBF<br>$R_{DS(on)}=5.0\text{ m}\Omega$              | IRF8736TRPBF<br>$R_{DS(on)}=4.8\text{ m}\Omega$                      |   |            |
|  |  |  | BSZ058N03LS G<br>$R_{DS(on)}=5.8\text{ m}\Omega$  | BSC050N03LS G<br>$R_{DS(on)}=5.0\text{ m}\Omega$              |  |   |            |
|  | IPC022N03L3<br>$R_{DS(on)}=5.3\text{ m}\Omega$     |  | IRFHM8329TRPBF<br>$R_{DS(on)}=6.1\text{ m}\Omega$ | BSC052N03LS<br>$R_{DS(on)}=5.2\text{ m}\Omega$                |  |   |            |
|  |  |  | BSZ065N03LS<br>$R_{DS(on)}=6.5\text{ m}\Omega$    | BSC057N03LS G<br>$R_{DS(on)}=5.7\text{ m}\Omega$              |  |   |            |
| 10-63                                      |  | IRF8327S2<br>$R_{DS(on)}=7.3\text{ m}\Omega$       | IRFHM8330TRPBF<br>$R_{DS(on)}=6.6\text{ m}\Omega$ | IRFH8330TRPBF<br>$R_{DS(on)}=6.6\text{ m}\Omega$              |  |   |            |
|  |  |  | BSZ0994NS<br>$R_{DS(on)}=7.0\text{ m}\Omega$      | BSC080N03LS G<br>$R_{DS(on)}=8.0\text{ m}\Omega$              |  |   |            |
|  |  |  | IRFHM831<br>$R_{DS(on)}=7.8\text{ m}\Omega$       | IRFH8334TRPBF<br>$R_{DS(on)}=9.0\text{ m}\Omega$              | IRF8721TRPBF<br>$R_{DS(on)}=8.5\text{ m}\Omega$                      |   |            |
|  |  |  | BSZ088N03LS G<br>$R_{DS(on)}=8.8\text{ m}\Omega$  | BSC090N03LS G<br>$R_{DS(on)}=9.0\text{ m}\Omega$              | IRF8714TRPBF<br>$R_{DS(on)}=8.7\text{ m}\Omega$                      |   |            |
|  |  |  | IRFHM8334TRPBF<br>$R_{DS(on)}=9.0\text{ m}\Omega$ | BSC0909NS<br>$R_{DS(on)}=9.2\text{ m}\Omega$                  |  |   |            |
|  |  |  | BSZ100N03LS G<br>$R_{DS(on)}=10.0\text{ m}\Omega$ |   |  |   |            |
|  | IPC014N03L3<br>$R_{DS(on)}=10.3\text{ m}\Omega$    | BSZ0909NS<br>$R_{DS(on)}=12.0\text{ m}\Omega$      | BSC120N03LS G<br>$R_{DS(on)}=12.0\text{ m}\Omega$ | IRF8707TRPBF<br>$R_{DS(on)}=11.9\text{ m}\Omega$              | IRF7907TRPBF<br>$R_{DS(on)}=11.8\text{ m}\Omega+16.4\text{ m}\Omega$ | IRLHS6342***<br>$R_{DS(on)}=16\text{ m}\Omega$    |            |
|  |  | IRFHM8337TRPBF<br>$R_{DS(on)}=12.4\text{ m}\Omega$ | IRFH8337TRPBF<br>$R_{DS(on)}=12.8\text{ m}\Omega$ | IRL6342 <sup>1)***</sup><br>$R_{DS(on)}=14.6\text{ m}\Omega$  | IRF8513TRPBF<br>$R_{DS(on)}=2.7\text{ m}\Omega+15.5\text{ m}\Omega$  | IRFHS8342<br>$R_{DS(on)}=16\text{ m}\Omega$       |            |
|  |  | BSZ130N03LS G<br>$R_{DS(on)}=13.0\text{ m}\Omega$  |   | IRL6372 <sup>1)***</sup><br>$R_{DS(on)}=18\text{ m}\Omega; 双$ | IRF8313TRPBF<br>$R_{DS(on)}=15.5\text{ m}\Omega+15.5\text{ m}\Omega$ | IRLHS6376***<br>$R_{DS(on)}=63\text{ m}\Omega; 双$ |            |
|  |  | IRFHM8363TRPBF<br>$R_{DS(on)}=14.9\text{ m}\Omega$ |   |   | IRF7905TRPBF<br>$R_{DS(on)}=17.1\text{ m}\Omega+21.8\text{ m}\Omega$ |   |            |
| 2 x 7.2                                    |  |  |   | BSC072N03LD G<br>$R_{DS(on)}=7.2\text{ m}\Omega$              |  |   |            |
| 2 x 15                                     |  |  |   | BSC150N03LD G<br>$R_{DS(on)}=15.0\text{ m}\Omega$             |  |   |            |

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<sup>1)</sup> 2.5 V<sub>GS</sub> 驱动能力  
<sup>2)\*\*</sup> 单片集成类肖特基二极管

\*\*\*  $R_{DS(on)}$  max @  $V_{GS}=4.5\text{ V}$   
\*\*\*\*  $R_{DS(on)}$  典型 @  $V_{GS}=4.5\text{ V}$



## OptiMOS™ 和 StrongIRFET™ 30 V 逻辑电平 5 V, 经优化

| $R_{DS(on), max.} @ V_{GS} = 10 \text{ V}$ [mΩ] | PQFN 3.3 x 3.3                                       | SuperSO8   | SO-8   | SO-8 双   | SOT-23   | TSOP-6  |
|---|--|--|--|--|--|---|
| 1-2   |  | BSC014N03MS G<br>$R_{DS(on)} = 1.4 \text{ m}\Omega$  |  |  |  |   |
|   |  | BSC016N03MS G<br>$R_{DS(on)} = 1.6 \text{ m}\Omega$  |  |  |  |   |
|   |  | BSC020N03MS G<br>$R_{DS(on)} = 2.0 \text{ m}\Omega$  |  |  |  |   |
| 2-4   |  | BSC025N03MS G<br>$R_{DS(on)} = 2.5 \text{ m}\Omega$  | BSO033N03MS G<br>$R_{DS(on)} = 3.3 \text{ m}\Omega$  |  |  |   |
|   | BSZ035N03MS G<br>$R_{DS(on)} = 3.5 \text{ m}\Omega$  | BSC030N03MS G<br>$R_{DS(on)} = 3.0 \text{ m}\Omega$  | BSO040N03MS G<br>$R_{DS(on)} = 4.0 \text{ m}\Omega$  |  |  |   |
| 4-10  |  | BSC042N03MS G<br>$R_{DS(on)} = 4.2 \text{ m}\Omega$  |  |  |  |   |
|   | BSZ050N03MS G<br>$R_{DS(on)} = 5.0 \text{ m}\Omega$  | BSC050N03MS G<br>$R_{DS(on)} = 5.0 \text{ m}\Omega$  |  |  |  |   |
|   |  | BSC057N03MS G<br>$R_{DS(on)} = 5.7 \text{ m}\Omega$  |  |  |  |   |
|   | BSZ058N03MS G<br>$R_{DS(on)} = 5.8 \text{ m}\Omega$  | BSC080N03MS G<br>$R_{DS(on)} = 8.0 \text{ m}\Omega$  |  |  |  |   |
|   | BSZ088N03MS G<br>$R_{DS(on)} = 8.8 \text{ m}\Omega$  | BSC090N03MS G<br>$R_{DS(on)} = 9.0 \text{ m}\Omega$  |  |  |  |   |
|   | BSZ100N03MS G<br>$R_{DS(on)} = 10.0 \text{ m}\Omega$ | BSC100N03MS G<br>$R_{DS(on)} = 10.0 \text{ m}\Omega$ |  |  |  |   |
| >10   | BSZ130N03MS G<br>$R_{DS(on)} = 13.0 \text{ m}\Omega$ | BSC120N03MS G<br>$R_{DS(on)} = 12.0 \text{ m}\Omega$ | BSO110N03MS G<br>$R_{DS(on)} = 11.0 \text{ m}\Omega$ |  | IRLML0030<br>$R_{DS(on)} = 27 \text{ m}\Omega$                   | IRLTS6342***<br>$R_{DS(on)} = 14.6 \text{ m}\Omega$ |
|   |  |  |  |  | IRLML6344 <sup>1)</sup> ***<br>$R_{DS(on)} = 29 \text{ m}\Omega$ | IRFTS8342<br>$R_{DS(on)} = 19 \text{ m}\Omega$      |
|   |  |  |  |  | IRLML6346 <sup>1)</sup> ***<br>$R_{DS(on)} = 63 \text{ m}\Omega$ |   |
|   |  |  |  |  | IRLML2030<br>$R_{DS(on)} = 100 \text{ m}\Omega$                  |   |
| 2 x 15  |  |  |  | BSO150N03MD G<br>$R_{DS(on)} = 15.0 \text{ m}\Omega$ |  |   |
| 2 x 22  |  |  |  | BSO220N03MD G<br>$R_{DS(on)} = 22.0 \text{ m}\Omega$ |  |   |



## OptiMOS™ 和 StrongIRFET™ 40 V 正常电平

| $R_{DS(on), max.} @ V_{GS} = 10 \text{ V}$ [mΩ] | TO-252 (DPAK)                                       | TO-263 (D <sup>2</sup> PAK)                           | TO-263 (D <sup>2</sup> PAK 7-针)                       | TO-220   | TO-247  | 裸芯片 ( $R_{DS(on)}$ 典型)                            | DirectFET™   | PQFN 3.3 x 3.3 | SuperSO8   | TO-220 FullPAK                                     |
|---|---|---|---|--|---|---|--|----------------|--|--|
| < 1   |   |   | IRFS7430TRL7PP<br>$R_{DS(on)} = 0.75 \text{ m}\Omega$ |  |   | IPC218N04N3<br>$R_{DS(on)} = 0.9 \text{ m}\Omega$ |  |                |  |  |
| 1-2   |   | IRFS7430TRLPBFB<br>$R_{DS(on)} = 1.3 \text{ m}\Omega$ | IRFS7434TRL7PP<br>$R_{DS(on)} = 1.0 \text{ m}\Omega$  | IRFB7430PBF<br>$R_{DS(on)} = 1.3 \text{ m}\Omega$  | IRFP7430PBF<br>$R_{DS(on)} = 1.3 \text{ m}\Omega$ | IPC171N04N<br>$R_{DS(on)} = 1.1 \text{ m}\Omega$  | IRF7739L1TRPBF<br>$R_{DS(on)} = 1.0 \text{ m}\Omega$ |                | IRFH7084TRPBF<br>$R_{DS(on)} = 1.25 \text{ m}\Omega$ |  |
|   |   | IPB015N04N G<br>$R_{DS(on)} = 1.5 \text{ m}\Omega$    | IPB011N04N G<br>$R_{DS(on)} = 1.1 \text{ m}\Omega$    | IPP015N04N G<br>$R_{DS(on)} = 1.5 \text{ m}\Omega$ |   |   | IRF7480MTRPBF<br>$R_{DS(on)} = 1.2 \text{ m}\Omega$  |                | IRFH7004TRPBF<br>$R_{DS(on)} = 1.4 \text{ m}\Omega$  |  |
|   |   | IRFS3004<br>$R_{DS(on)} = 1.75 \text{ m}\Omega$       | IRFS3004-7P<br>$R_{DS(on)} = 1.25 \text{ m}\Omega$    |  |   |   | IRF7946TRPBF<br>$R_{DS(on)} = 1.4 \text{ m}\Omega$   |                | BSC017N04NS G<br>$R_{DS(on)} = 1.7 \text{ m}\Omega$  |  |
|   |   | IRFS7434TRLPBFB<br>$R_{DS(on)} = 1.6 \text{ m}\Omega$ | IRFS7437TRL7PP<br>$R_{DS(on)} = 1.4 \text{ m}\Omega$  | IRFB7434PBF<br>$R_{DS(on)} = 1.6 \text{ m}\Omega$  |   |   | BSB015N04NX3 G<br>$R_{DS(on)} = 1.5 \text{ m}\Omega$ |                | IRF40H210<br>$R_{DS(on)} = 1.7 \text{ m}\Omega$      |  |
|   |   | IRFS7437TRLPBFB<br>$R_{DS(on)} = 1.8 \text{ m}\Omega$ | IPB020N04N G<br>$R_{DS(on)} = 2.0 \text{ m}\Omega$    | IRFB7437PBF<br>$R_{DS(on)} = 2.0 \text{ m}\Omega$  |   |   | IRF40DM229<br>$R_{DS(on)} = 1.85 \text{ m}\Omega$    |                | BSC019N04NS G<br>$R_{DS(on)} = 1.9 \text{ m}\Omega$  |  |
| 2-4   | IRFR7440TRPBF<br>$R_{DS(on)} = 2.4 \text{ m}\Omega$ |   |   | IPP023N04N G<br>$R_{DS(on)} = 2.3 \text{ m}\Omega$ |   |   | IRF7483MTRPBF<br>$R_{DS(on)} = 2.3 \text{ m}\Omega$  |                | IRFH7440TRPBF<br>$R_{DS(on)} = 2.4 \text{ m}\Omega$  |  |
|   | IRFR7446TRPBF<br>$R_{DS(on)} = 3.9 \text{ m}\Omega$ | IRFS7440TRLPBFB<br>$R_{DS(on)} = 2.5 \text{ m}\Omega$ |   | IRFB7440PBF<br>$R_{DS(on)} = 2.5 \text{ m}\Omega$  |   |   |  |                | BSC030N04NS G<br>$R_{DS(on)} = 3.0 \text{ m}\Omega$  |  |
|   | IRF1404S<br>$R_{DS(on)} = 4.0 \text{ m}\Omega$      |   |   | IRFB7446PBF<br>$R_{DS(on)} = 3.3 \text{ m}\Omega$  |   |   |  |                | IRFH7446TRPBF<br>$R_{DS(on)} = 3.3 \text{ m}\Omega$  |  |
| 4-10  |   |   |   | IPP041N04N G<br>$R_{DS(on)} = 4.1 \text{ m}\Omega$ |   |   |  |                | BSC054N04NS G<br>$R_{DS(on)} = 5.4 \text{ m}\Omega$  | IPA041N04N G<br>$R_{DS(on)} = 4.1 \text{ m}\Omega$ |
|   | IRF40R207<br>$R_{DS(on)} = 5.1 \text{ m}\Omega$     |   |   | IRF40B207<br>$R_{DS(on)} = 4.5 \text{ m}\Omega$    |   |   |  |                |  |  |
|   |   |   |   | IPP048N04N G<br>$R_{DS(on)} = 4.8 \text{ m}\Omega$ |   |   |  |                |  |  |
| >10   |   |   |   |  |   |   | BSZ105N04NS G<br>$R_{DS(on)} = 10.5 \text{ m}\Omega$ |                |  |  |
|   |   |   |   |  |   |   | BSZ165N04NS G<br>$R_{DS(on)} = 16.5 \text{ m}\Omega$ |                |  |  |

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<sup>1)</sup> 2.5 V<sub>GS</sub> 驱动能力  
\*\*\*  $R_{DS(on)}$  max @  $V_{GS} = 4.5 \text{ V}$



## OptiMOS™ 和 StrongIRFET™ 40 V 逻辑电平

| $R_{DS(on), max.} @ V_{GS}=10\text{ V}$ [mΩ] | TO-252 (DPAK)                                     | TO-263 (D²PAK)                                   | TO-263 (D²PAK 7-针)                              | TO-220   | TO-247  | DirectFET™   | PQFN 3.3 x 3.3                                   | SuperSO8   | TO-无铅  |
|--|---|--|---|--|---|--|--|--|--|
| < 1  |   |  | IRL40SC228<br>$R_{DS(on)}=0.65\text{ m}\Omega$  |  |   | IRL7472L1TRPBF<br>$R_{DS(on)}=0.45\text{ m}\Omega$ |  | BSC007N04LS6<br>$R_{DS(on)}=0.7\text{ m}\Omega$    | IRL40T209<br>$R_{DS(on)}=0.8\text{ m}\Omega$ |
|  |   |  | IRL40SC209<br>$R_{DS(on)}=0.8\text{ m}\Omega$   |  |   |  |  |  |  |
| 1-2  | IPB015N04L G<br>$R_{DS(on)}=1.5\text{ m}\Omega$   | IPB011N04L G<br>$R_{DS(on)}=1.1\text{ m}\Omega$  | IRL40B209<br>$R_{DS(on)}=1.25\text{ m}\Omega$   | IRLP3034PBF<br>$R_{DS(on)}=1.7\text{ m}\Omega$ | BSB014N04LX3 G<br>$R_{DS(on)}=1.4\text{ m}\Omega$ |  |  | BSC010N04LS<br>$R_{DS(on)}=1.0\text{ m}\Omega$     |  |
|  | IRLS3034TRLPBF<br>$R_{DS(on)}=1.7\text{ m}\Omega$ | IRLS3034TRL7P<br>$R_{DS(on)}=1.4\text{ m}\Omega$ | IRLB3034PBF<br>$R_{DS(on)}=1.7\text{ m}\Omega$  |  | IRL7486MTTRPBF<br>$R_{DS(on)}=1.4\text{ m}\Omega$ |  |  | BSC010N04LS6<br>$R_{DS(on)}=1.0\text{ m}\Omega$    |  |
|  | IRL40S212<br>$R_{DS(on)}=1.9\text{ m}\Omega$      |  | IRL40B212<br>$R_{DS(on)}=1.9\text{ m}\Omega$    |  |   |  |  | BSC010N04LST<br>$R_{DS(on)}=1.0\text{ m}\Omega$    |  |
|  |   |  |   |  |   |  |  | BSC010N04LSI<br>$R_{DS(on)}=1.05\text{ m}\Omega$   |  |
|  |   |  |   |  |   |  |  | BSC010N04LSC *<br>$R_{DS(on)}=1.05\text{ m}\Omega$ |  |
|  |   |  |   |  |   |  |  | BSC014N04LST<br>$R_{DS(on)}=1.4\text{ m}\Omega$    |  |
|  |   |  |   |  |   |  |  | BSC014N04LS<br>$R_{DS(on)}=1.4\text{ m}\Omega$     |  |
|  |   |  |   |  |   |  |  | BSC014N04LSI<br>$R_{DS(on)}=1.45\text{ m}\Omega$   |  |
|  |   |  |   |  |   |  |  | BSC016N04LS G<br>$R_{DS(on)}=1.6\text{ m}\Omega$   |  |
|  |   |  |   |  |   |  | BSZ018N04LS6<br>$R_{DS(on)}=1.8\text{ m}\Omega$  | BSC018N04LS G<br>$R_{DS(on)}=1.8\text{ m}\Omega$   |  |
| 2-4  |   |  | IRL40B215<br>$R_{DS(on)}=2.7\text{ m}\Omega$    |  |   | BSZ021N04LS6<br>$R_{DS(on)}=2.1\text{ m}\Omega$    | BSC022N04LS<br>$R_{DS(on)}=2.2\text{ m}\Omega$   |  |  |
|  |   |  |   |  |   | BSZ024N04LS6<br>$R_{DS(on)}=2.4\text{ m}\Omega$    | BSC022N04LS6<br>$R_{DS(on)}=2.2\text{ m}\Omega$  |  |  |
|  |   |  | IPPO39N04L G<br>$R_{DS(on)}=3.9\text{ m}\Omega$ |  |   | BSZ025N04LS<br>$R_{DS(on)}=2.5\text{ m}\Omega$     | BSC026N04LS<br>$R_{DS(on)}=2.6\text{ m}\Omega$   |  |  |
|  |   |  |   |  |   | BSZ028N04LS<br>$R_{DS(on)}=2.8\text{ m}\Omega$     | BSC027N04LS G<br>$R_{DS(on)}=2.7\text{ m}\Omega$ |  |  |
|  |   |  |   |  |   |  | BSC032N04LS<br>$R_{DS(on)}=3.2\text{ m}\Omega$   |  |  |
|  | IPD036N04L G<br>$R_{DS(on)}=3.6\text{ m}\Omega$   | IRL1404S<br>$R_{DS(on)}=4.0\text{ m}\Omega$      |   |  |   | BSZ034N04LS<br>$R_{DS(on)}=3.4\text{ m}\Omega$     | BSC035N04LS G<br>$R_{DS(on)}=3.5\text{ m}\Omega$ |  |  |
| 4-10   | IRLR31142TRPBF<br>$R_{DS(on)}=4.5\text{ m}\Omega$ |  |   |  |   | BSZ040N04LS G<br>$R_{DS(on)}=4.0\text{ m}\Omega$   | BSC050N04LS G<br>$R_{DS(on)}=5.0\text{ m}\Omega$ |  |  |
|  |   |  |   |  |   | BSZ063N04LS6<br>$R_{DS(on)}=6.3\text{ m}\Omega$    | BSC059N04LS G<br>$R_{DS(on)}=5.9\text{ m}\Omega$ |  |  |
|  |   |  |   |  |   | BSZ097N04LS G<br>$R_{DS(on)}=9.7\text{ m}\Omega$   | BSC059N04LS6<br>$R_{DS(on)}=5.9\text{ m}\Omega$  |  |  |
|  |   |  |   |  |   |  | BSZ093N04LS G<br>$R_{DS(on)}=9.3\text{ m}\Omega$ | BSC093N04LS G<br>$R_{DS(on)}=9.3\text{ m}\Omega$   |  |

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3) 即将发布  
\* 爬电距离增加



## OptiMOS™ 和 StrongIRFET™ 60 V 正常电平

| $R_{DS(on),max.}$<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)  | TO-263<br>(D²PAK)   | TO-263<br>(D²PAK 7-针)                                       | TO-262<br>(I²PAK)   | TO-220   | TO-220<br>FullPAK  | TO-247   |
|---|---|---|---|---|--|--|--|
| 1-2   |   |   | IPB010N06N <sup>2)</sup><br>$R_{DS(on)}=1.0\text{ m}\Omega$ |   |  |  |  |
|   |   |   | IRFS7530TRL7PP<br>$R_{DS(on)}=1.4\text{ m}\Omega$           |   |  |  |  |
|   |   |   | IPB014N06N <sup>2)</sup><br>$R_{DS(on)}=1.4\text{ m}\Omega$ |   |  |  |  |
|   |   |   | IPB017N06N3 G<br>$R_{DS(on)}=1.7\text{ m}\Omega$            |   |  |  |  |
|   |   | IRFS7530TRLPBF<br>$R_{DS(on)}=2.0\text{ m}\Omega$           | IRFS7534TRL7PP<br>$R_{DS(on)}=1.95\text{ m}\Omega$          | IPI020N06N <sup>2)</sup><br>$R_{DS(on)}=2.0\text{ m}\Omega$ | IRFB7530PBF<br>$R_{DS(on)}=2.0\text{ m}\Omega$                 |  | IRFP7530PBF<br>$R_{DS(on)}=2.0\text{ m}\Omega$ |
| 2-4   | IPD025N06N <sup>2)</sup><br>$R_{DS(on)}=2.5\text{ m}\Omega$ | IRFS7534TRLPBF<br>$R_{DS(on)}=2.4\text{ m}\Omega$           | IRFS3006TRL7PP<br>$R_{DS(on)}=2.1\text{ m}\Omega$           |   | IPPO20N06N <sup>2)</sup><br>$R_{DS(on)}=2.0\text{ m}\Omega$    |  |  |
|   |   | IRFS3006<br>$R_{DS(on)}=2.5\text{ m}\Omega$                 |   | IPI024N06N3 G<br>$R_{DS(on)}=2.4\text{ m}\Omega$            | IRFB7534PBF<br>$R_{DS(on)}=2.4\text{ m}\Omega$                 |  |  |
|   |   | IPB026N06N <sup>2)</sup><br>$R_{DS(on)}=2.6\text{ m}\Omega$ |   |   | IPPO24N06N3 G <sup>2)</sup><br>$R_{DS(on)}=2.4\text{ m}\Omega$ |  | IRFP3006PBF<br>$R_{DS(on)}=2.5\text{ m}\Omega$ |
|   |   | IPB029N06N3 G<br>$R_{DS(on)}=2.9\text{ m}\Omega$            |   | IPI029N06N <sup>2)</sup><br>$R_{DS(on)}=2.9\text{ m}\Omega$ | IPPO29N06N <sup>2)</sup><br>$R_{DS(on)}=2.9\text{ m}\Omega$    | IAPA29N06N <sup>2)</sup><br>$R_{DS(on)}=2.9\text{ m}\Omega$  | IRFP3206PBF<br>$R_{DS(on)}=3.0\text{ m}\Omega$ |
|   | IPD033N06N <sup>2)</sup><br>$R_{DS(on)}=3.3\text{ m}\Omega$ | IRFS3206<br>$R_{DS(on)}=3.0\text{ m}\Omega$                 |   | IPI032N06N3 G<br>$R_{DS(on)}=3.2\text{ m}\Omega$            | IPPO32N06N3 G<br>$R_{DS(on)}=3.2\text{ m}\Omega$               | IAPA32N06N3 G<br>$R_{DS(on)}=3.2\text{ m}\Omega$             |  |
|   | IPD034N06N3 G<br>$R_{DS(on)}=3.4\text{ m}\Omega$            | IRFS7537TRLPBF<br>$R_{DS(on)}=3.3\text{ m}\Omega$           |   |   | IRFB7537PBF<br>$R_{DS(on)}=3.3\text{ m}\Omega$                 |  | IRFP7537PBF<br>$R_{DS(on)}=3.3\text{ m}\Omega$ |
|   | IPD038N06N3 G<br>$R_{DS(on)}=3.8\text{ m}\Omega$            | IPB037N06N3 G<br>$R_{DS(on)}=3.7\text{ m}\Omega$            |   |   | IPPO40N06N3 G<br>$R_{DS(on)}=4.0\text{ m}\Omega$               |  |  |
| 4-10  |   | IRFS3306<br>$R_{DS(on)}=4.2\text{ m}\Omega$                 |   | IPI040N06N3 G<br>$R_{DS(on)}=4.0\text{ m}\Omega$            | IPPO40N06N <sup>2)</sup><br>$R_{DS(on)}=4.0\text{ m}\Omega$    | IAPA40N06N <sup>2)</sup><br>$R_{DS(on)}=4.0\text{ m}\Omega$  |  |
|   | IRFR7540TRPBF<br>$R_{DS(on)}=4.8\text{ m}\Omega$            | IRFS7540TRLPBF<br>$R_{DS(on)}=5.1\text{ m}\Omega$           |   |   | IRFB7540PBF<br>$R_{DS(on)}=5.1\text{ m}\Omega$                 | IAPA057N06N3 G<br>$R_{DS(on)}=5.7\text{ m}\Omega$            |  |
|   | IPD053N06N <sup>2)</sup><br>$R_{DS(on)}=5.3\text{ m}\Omega$ | IPB054N06N3 G<br>$R_{DS(on)}=5.4\text{ m}\Omega$            |   |   | IPPO57N06N3 G <sup>2)</sup><br>$R_{DS(on)}=5.7\text{ m}\Omega$ |  |  |
|   |   | IPB057N06N <sup>2)</sup><br>$R_{DS(on)}=5.7\text{ m}\Omega$ |   |   | IRFB7545PBF<br>$R_{DS(on)}=5.9\text{ m}\Omega$                 |  |  |
|   | IRFR7546TRPBF<br>$R_{DS(on)}=7.9\text{ m}\Omega$            | IRF1018ES<br>$R_{DS(on)}=8.4\text{ m}\Omega$                |   |   | IPPO60N06N <sup>2)</sup><br>$R_{DS(on)}=6.0\text{ m}\Omega$    | IAPA060N06N <sup>2)</sup><br>$R_{DS(on)}=6.0\text{ m}\Omega$ |  |
|   | IPD088N06N3 G<br>$R_{DS(on)}=8.8\text{ m}\Omega$            |   |   |   | IRF60B217<br>$R_{DS(on)}=9.0\text{ m}\Omega$                   | IAPA093N06N3 G<br>$R_{DS(on)}=9.3\text{ m}\Omega$            |  |
| >10   | IRF60R217<br>$R_{DS(on)}=9.9\text{ m}\Omega$                | IPB090N06N3 G<br>$R_{DS(on)}=9.0\text{ m}\Omega$            |   |   | IPPO93N06N3 G<br>$R_{DS(on)}=9.3\text{ m}\Omega$               |  |  |
|   |   | IRFS3806<br>$R_{DS(on)}=15.8\text{ m}\Omega$                |   |   |  |  |  |



## OptiMOS™ 和 StrongIRFET™ 60 V 正常电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | 裸芯片<br>( $R_{DS(on)}$ 典型)                   | DirectFET™                                     | PQFN 3.3 x 3.3   | SuperSO8  | TO-无铅  |
|---|---|--|--|---|--|
| < 1   |   |  |  |   | IPT007N06N <sup>2)</sup><br>$R_{DS(on)} = 0.7\text{ mΩ}$ |
| 1-2   | IPC218N06N3<br>$R_{DS(on)} = 1.3\text{ mΩ}$ | IRF7749L1TRPBF<br>$R_{DS(on)} = 1.5\text{ mΩ}$ |  | BSC012N06NS<br>$R_{DS(on)} = 1.2\text{ mΩ}$<br>BSC014N06NS <sup>2)</sup><br>$R_{DS(on)} = 1.4\text{ mΩ}$<br>BSC014N06NST <sup>2)</sup><br>$R_{DS(on)} = 1.45\text{ mΩ}$<br>BSC016N06NST <sup>2)</sup><br>$R_{DS(on)} = 1.6\text{ mΩ}$<br>BSC016N06NS <sup>2)</sup><br>$R_{DS(on)} = 1.6\text{ mΩ}$<br>BSC019N06NS <sup>2)</sup><br>$R_{DS(on)} = 1.9\text{ mΩ}$ | IPT012N06N <sup>2)</sup><br>$R_{DS(on)} = 1.2\text{ mΩ}$ |
|   |   |  |  |   |  |
|   |   |  |  |   |  |
|   |   |  |  |   |  |
|   |   |  |  |   |  |
|   |   |  |  |   |  |
| 2-4   |   | IRF7748L1TRPBF<br>$R_{DS(on)} = 2.2\text{ mΩ}$ |  | BSC028N06NS <sup>2)</sup><br>$R_{DS(on)} = 2.8\text{ mΩ}$<br>BSC028N06NST <sup>2)</sup><br>$R_{DS(on)} = 2.8\text{ mΩ}$   |  |
|   |   | BSB028N06NN3 G<br>$R_{DS(on)} = 2.8\text{ mΩ}$ |  | BSC031N06NS3 G<br>$R_{DS(on)} = 3.1\text{ mΩ}$  |  |
|   |   | IRF60DM206<br>$R_{DS(on)} = 2.9\text{ mΩ}$     |  | IRFH7085TRPBF<br>$R_{DS(on)} = 3.2\text{ mΩ}$   |  |
|   |   |  |  | BSC034N06NS <sup>2)</sup><br>$R_{DS(on)} = 3.4\text{ mΩ}$<br>BSC039N06NS <sup>2)</sup><br>$R_{DS(on)} = 3.9\text{ mΩ}$  |  |
|   |   | IRF7580MTRPBF<br>$R_{DS(on)} = 3.6\text{ mΩ}$  |  |   |  |
| 4-10  |   | IRF6648<br>$R_{DS(on)} = 7.0\text{ mΩ}$        | BSZ042N06NS <sup>2)</sup><br>$R_{DS(on)} = 4.2\text{ mΩ}$  | IRLH5036TRPBF<br>$R_{DS(on)} = 4.4\text{ mΩ}$   |  |
|   |   | IRF6674<br>$R_{DS(on)} = 11.0\text{ mΩ}$       |  | IRFH7545TRPBF<br>$R_{DS(on)} = 5.2\text{ mΩ}$   |  |
|   |   |  | BSZ068N06NS <sup>2)</sup><br>$R_{DS(on)} = 6.8\text{ mΩ}$  | BSC066N06NS <sup>2)</sup><br>$R_{DS(on)} = 6.6\text{ mΩ}$   |  |
|   |   |  |  | BSC076N06NS3 G<br>$R_{DS(on)} = 7.6\text{ mΩ}$  |  |
|   |   |  | BSZ100N06NS <sup>2)</sup><br>$R_{DS(on)} = 10.0\text{ mΩ}$ | BSC097N06NS <sup>2)</sup><br>$R_{DS(on)} = 9.7\text{ mΩ}$<br>BSC097N06NST <sup>2)</sup><br>$R_{DS(on)} = 9.7\text{ mΩ}$   |  |
|   |   |  |  |   |  |
| >10   |   |  | BSZ110N06NS3 G<br>$R_{DS(on)} = 11.0\text{ mΩ}$            | BSC110N06NS3 G<br>$R_{DS(on)} = 11.0\text{ mΩ}$   |  |



## OptiMOS™ 和 StrongIRFET™ 60 V 逻辑电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                              | TO-263<br>(D <sup>2</sup> PAK)                 | TO-263<br>(D <sup>2</sup> PAK 7-针)            | TO-262<br>(I <sup>2</sup> PAK)                | TO-220   | 裸芯片<br>( $R_{DS(on)}$ 典型)                   | PQFN 2 x 2 | PQFN 3.3 x 3.3                                  | SuperSO8  | SOT-23 |
|---|---|--|---|---|--|---|------------|---|---|--------|
| 1-2   |   | IPB019N06L3 G<br>$R_{DS(on)} = 1.9\text{ mΩ}$  | IPB016N06L3 G<br>$R_{DS(on)} = 1.6\text{ mΩ}$ |   |  | IPC218N06L3<br>$R_{DS(on)} = 1.2\text{ mΩ}$ |            |   | BSC014N06LS5<br>$R_{DS(on)} = 1.4\text{ mΩ}$    |        |
|   |   | IRL60S216<br>$R_{DS(on)} = 1.95\text{ mΩ}$     |   | IRL60SL216<br>$R_{DS(on)} = 1.95\text{ mΩ}$   | IRL60B216<br>$R_{DS(on)} = 1.9\text{ mΩ}$      |   |            |   |   |        |
| 2-4   |   | IRLS3036TRLPBF<br>$R_{DS(on)} = 2.4\text{ mΩ}$ |   |   | IRLB3036PBF<br>$R_{DS(on)} = 2.4\text{ mΩ}$    |   |            |   | BSC027N06LS5<br>$R_{DS(on)} = 2.7\text{ mΩ}$    |        |
|   | IPD031N06L3 G<br>$R_{DS(on)} = 3.1\text{ mΩ}$ | IPB034N06L3 G<br>$R_{DS(on)} = 3.4\text{ mΩ}$  |   |   | IPPP037N06L3 G<br>$R_{DS(on)} = 3.7\text{ mΩ}$ |   |            |   | BSC028N06LS3 G<br>$R_{DS(on)} = 2.8\text{ mΩ}$  |        |
| 4-10  | IPD048N06L3 G<br>$R_{DS(on)} = 4.8\text{ mΩ}$ |  |   |   | IPP052N06L3 G<br>$R_{DS(on)} = 5.2\text{ mΩ}$  |   |            | BSZ040N06LS5<br>$R_{DS(on)} = 4.0\text{ mΩ}$    | IRLH5036TRPBF<br>$R_{DS(on)} = 4.4\text{ mΩ}$   |        |
|   | IRLR3636TRPBF<br>$R_{DS(on)} = 6.8\text{ mΩ}$ |  |   |   |  |   |            | BSZ065N06LS5<br>$R_{DS(on)} = 6.5\text{ mΩ}$    | BSC065N06LS5<br>$R_{DS(on)} = 6.5\text{ mΩ}$    |        |
|   | IPD079N06L3 G<br>$R_{DS(on)} = 7.9\text{ mΩ}$ | IPB081N06L3 G<br>$R_{DS(on)} = 8.1\text{ mΩ}$  |   | IPI084N06L3 G<br>$R_{DS(on)} = 8.4\text{ mΩ}$ | IPP084N06L3 G<br>$R_{DS(on)} = 8.4\text{ mΩ}$  |   |            | BSZ067N06LS3 G<br>$R_{DS(on)} = 6.7\text{ mΩ}$  | BSC067N06LS3 G<br>$R_{DS(on)} = 6.7\text{ mΩ}$  |        |
|   |   |  |   |   |  |   |            | BSZ099N06LS5<br>$R_{DS(on)} = 9.9\text{ mΩ}$    | BSC094N06LS5<br>$R_{DS(on)} = 9.4\text{ mΩ}$    |        |
|   |   |  |   |   |  |   |            | BSZ100N06LS3 G<br>$R_{DS(on)} = 10.0\text{ mΩ}$ | BSC100N06LS3 G<br>$R_{DS(on)} = 10.0\text{ mΩ}$ |        |
| >10   | IPD350N06L G<br>$R_{DS(on)} = 35.0\text{ mΩ}$ |  |   |   |  | IRL60HS118<br>$R_{DS(on)} = 17.0\text{ mΩ}$ |            |   | IRLML0060<br>$R_{DS(on)} = 92\text{ mΩ}$        |        |
|   |   |  |   |   |  |   |            |   | IRLML2060<br>$R_{DS(on)} = 480\text{ mΩ}$       |        |

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2) 6 V 额定( $R_{DS(on)}$  也于 @  $V_{GS} = 6\text{ V}$  规定)



## OptiMOS™ 和 StrongIRFET™ 75 V 正常电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                                   | TO-263<br>(D²PAK)                                  | TO-263<br>(D²PAK 7-针)                                | TO-220   | TO-247   | 裸芯片<br>( $R_{DS(on)}$ 典型)                        | DirectFET™   | SuperSO8  |
|---|--|--|--|--|--|--|--|---|
| 1-2   |  | IPB020NE7N3 G<br>$R_{DS(on)} = 2.0\text{ m}\Omega$ | IRFS7730TRL7PP<br>$R_{DS(on)} = 2.0\text{ m}\Omega$  |  | IRFP7718PBF<br>$R_{DS(on)} = 1.8\text{ m}\Omega$ | IPC302NE7N3<br>$R_{DS(on)} = 1.2\text{ m}\Omega$ |  |   |
| 2-4   |  | IRFS7730TRLPB<br>$R_{DS(on)} = 2.6\text{ m}\Omega$ |  | IPPO23NE7N3 G<br>$R_{DS(on)} = 2.3\text{ m}\Omega$ |  |  |  |   |
|   |  | IPB031NE7N3 G<br>$R_{DS(on)} = 3.1\text{ m}\Omega$ | IRFS7734TRL7PP<br>$R_{DS(on)} = 3.05\text{ m}\Omega$ | IRFB7730PBF<br>$R_{DS(on)} = 2.6\text{ m}\Omega$   |  |  |  | BSC036NE7NS3 G<br>$R_{DS(on)} = 3.6\text{ m}\Omega$ |
|   |  | IRFS7734TRLPB<br>$R_{DS(on)} = 3.5\text{ m}\Omega$ |  | IPPO34NE7N3 G<br>$R_{DS(on)} = 3.4\text{ m}\Omega$ |  |  |  |   |
|   |  |  |  | IRFB7734PBF<br>$R_{DS(on)} = 3.5\text{ m}\Omega$   |  |  |  |   |
| 4-10  |  | IPB049NE7N3 G<br>$R_{DS(on)} = 4.9\text{ m}\Omega$ |  | IPPO52NE7N3 G<br>$R_{DS(on)} = 5.2\text{ m}\Omega$ |  |  |  | BSC042NE7NS3 G<br>$R_{DS(on)} = 4.2\text{ m}\Omega$ |
|   |  | IRFS7762TRLPB<br>$R_{DS(on)} = 6.7\text{ m}\Omega$ |  | IPPO62NE7N3 G<br>$R_{DS(on)} = 6.2\text{ m}\Omega$ |  |  | IRF7780MTRPB<br>$R_{DS(on)} = 5.7\text{ m}\Omega$                |   |
|   | IRFR7740TRPB<br>$R_{DS(on)} = 7.2\text{ m}\Omega$  |  |  | IRFB7740PBF<br>$R_{DS(on)} = 7.3\text{ m}\Omega$   |  |  |  |   |
|   |  | IRFS7787TRLPB<br>$R_{DS(on)} = 8.4\text{ m}\Omega$ |  | IRFB7787PBF<br>$R_{DS(on)} = 8.4\text{ m}\Omega$   |  |  |  | IRFH7787TRPB<br>$R_{DS(on)} = 8.0\text{ m}\Omega$   |
| >10   | IRFR7746TRPB<br>$R_{DS(on)} = 11.2\text{ m}\Omega$ |  |  | IRFB7746PBF<br>$R_{DS(on)} = 10.6\text{ m}\Omega$  |  |  | BSF450NE7NH3 <sup>1)</sup><br>$R_{DS(on)} = 45.0\text{ m}\Omega$ |   |



## OptiMOS™ 和 StrongIRFET™ 80 V 正常电平-逻辑电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                                    | TO-263<br>(D²PAK)                                  | TO-263<br>(D²PAK 7-针)                              | TO-262<br>(I²PAK)                                  | TO-220   | TO-220<br>FullPAK                                  | 裸芯片<br>( $R_{DS(on)}$ 典型)                        | DirectFET™   | PQFN 2 x 2                                       | PQFN 3.3<br>x 3.3                                       | SuperSO8 | TO-无铅  |
|---|---|--|--|--|--|--|--|--|--|---|----------|--|
| 1-2   |   | IPB017N08N5<br>$R_{DS(on)} = 1.7\text{ m}\Omega$   | IPB015N08N5<br>$R_{DS(on)} = 1.5\text{ m}\Omega$   |  |  |  | IPC302N08N3<br>$R_{DS(on)} = 1.2\text{ m}\Omega$ |  |  |   |          | IPT012N08N5<br>$R_{DS(on)} = 1.2\text{ m}\Omega$       |
|   |   | IPB020N08N5<br>$R_{DS(on)} = 2.0\text{ m}\Omega$   | IPB019N08N3 G<br>$R_{DS(on)} = 1.9\text{ m}\Omega$ |  | IPPO20N08N5<br>$R_{DS(on)} = 2.0\text{ m}\Omega$   |  |  |  |  |   |          | BSC021N08NS5<br>$R_{DS(on)} = 2.1\text{ m}\Omega$      |
| 2-4   |   | IPB024N08N5<br>$R_{DS(on)} = 2.4\text{ m}\Omega$   |  |  | IPPO23N08N5<br>$R_{DS(on)} = 2.3\text{ m}\Omega$   |  |  |  |  |   |          | BSC025N08LS5<br>$R_{DS(on)} = 2.5\text{ m}\Omega$      |
|   |   | IPB025N08N3 G<br>$R_{DS(on)} = 2.5\text{ m}\Omega$ | IPB030N08N3 G<br>$R_{DS(on)} = 3.0\text{ m}\Omega$ |  | IPPO27N08N5<br>$R_{DS(on)} = 2.7\text{ m}\Omega$   |  |  |  |  |   |          | BSC026N08NS5<br>$R_{DS(on)} = 2.6\text{ m}\Omega$      |
|   |   |  |  |  | IPPO28N08N3 G<br>$R_{DS(on)} = 2.8\text{ m}\Omega$ | IPA028N08N3 G<br>$R_{DS(on)} = 2.8\text{ m}\Omega$ |  |  |  |   |          | BSC030N08NS5<br>$R_{DS(on)} = 3.0\text{ m}\Omega$      |
|   |   | IPB031N08N5<br>$R_{DS(on)} = 3.1\text{ m}\Omega$   |  |  | IPPO34N08N5<br>$R_{DS(on)} = 3.4\text{ m}\Omega$   |  |  |  |  |   |          | BSC037N08NS5<br>$R_{DS(on)} = 3.7\text{ m}\Omega$      |
|   |   | IPB035N08N3 G<br>$R_{DS(on)} = 3.5\text{ m}\Omega$ |  | IPB037N08N3 G<br>$R_{DS(on)} = 3.7\text{ m}\Omega$ | IPPO37N08N3 G<br>$R_{DS(on)} = 3.7\text{ m}\Omega$ | IPA037N08N3 G<br>$R_{DS(on)} = 3.7\text{ m}\Omega$ |  |  |  |   |          | BSC037N08NS5T<br>$R_{DS(on)} = 3.7\text{ m}\Omega$     |
| 4-10  | IPD046N08N5<br>$R_{DS(on)} = 4.6\text{ m}\Omega$    | IPB049N08N5<br>$R_{DS(on)} = 4.9\text{ m}\Omega$   |  |  | IPPO52N08N5<br>$R_{DS(on)} = 5.2\text{ m}\Omega$   |  |  | BSB044N08NN3<br>G<br>$R_{DS(on)} = 4.4\text{ m}\Omega$ |  |   |          | BSC047N08NS3<br>G<br>$R_{DS(on)} = 4.7\text{ m}\Omega$ |
|   | IPD053N08N3 G<br>$R_{DS(on)} = 5.3\text{ m}\Omega$  | IPB054N08N3 G<br>$R_{DS(on)} = 5.4\text{ m}\Omega$ |  |  | IPPO57N08N3 G<br>$R_{DS(on)} = 5.7\text{ m}\Omega$ | IPA057N08N3 G<br>$R_{DS(on)} = 5.7\text{ m}\Omega$ |  |  |  |   |          | BSC052N08NS5<br>$R_{DS(on)} = 5.2\text{ m}\Omega$      |
|   |   | IPB067N08N3 G<br>$R_{DS(on)} = 6.7\text{ m}\Omega$ |  |  |  |  |  |  |  |   |          | BSZ070N08LS5<br>G<br>$R_{DS(on)} = 7.0\text{ m}\Omega$ |
|   |   |  |  |  |  |  |  |  |  |   |          | BSZ075N08NS5<br>$R_{DS(on)} = 7.5\text{ m}\Omega$      |
|   | IPD096N08N3 G<br>$R_{DS(on)} = 9.6\text{ m}\Omega$  |  |  |  | IPP100N08N3 G<br>$R_{DS(on)} = 9.7\text{ m}\Omega$ |  |  |  |  |   |          | BSZ084N08NS5<br>G<br>$R_{DS(on)} = 8.4\text{ m}\Omega$ |
| >10   |   |  |  |  |  |  |  | BSB104N08NP3<br>$R_{DS(on)} = 10.4\text{ m}\Omega$     | IRL80HS120<br>$R_{DS(on)} = 32.0\text{ m}\Omega$ | BSZ110N08NS5<br>G<br>$R_{DS(on)} = 11.0\text{ m}\Omega$ |          | BSC117N08NS5<br>$R_{DS(on)} = 11.7\text{ m}\Omega$     |
|   | IPD135N08N3 G<br>$R_{DS(on)} = 13.5\text{ m}\Omega$ |  |  |  |  |  |  |  |  | BSZ123N08NS3<br>G<br>$R_{DS(on)} = 12.3\text{ m}\Omega$ |          | BSC123N08NS3<br>$R_{DS(on)} = 12.3\text{ m}\Omega$     |
|   |   |  |  |  |  |  |  |  |  | BSZ234N08NS3<br>G<br>$R_{DS(on)} = 34.0\text{ m}\Omega$ |          | BSC340N08NS3<br>$R_{DS(on)} = 34.0\text{ m}\Omega$     |

## OptiMOS™ 和 StrongIRFET™ 100 V 正常电平



| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                                      | TO-263<br>(D²PAK)                                     | TO-263<br>(D²PAK 7-针)                               | TO-262<br>(I²PAK)                                    | TO-220  | TO-220<br>FullPAK                                   | TO-247   |
|---|---|---|---|--|---|---|--|
| 1-2   |   | IPB020N10N5<br>$R_{DS(on)} = 2.0 \text{ m}\Omega$     | IPB017N10N5<br>$R_{DS(on)} = 1.7 \text{ m}\Omega$   |  |   |   | IRF100P218<br>$R_{DS(on)} = 1.1 \text{ m}\Omega$   |
|   |   | IPB020N10N5LF<br>$R_{DS(on)} = 2.0 \text{ m}\Omega$   | IPB017N10N5LF<br>$R_{DS(on)} = 1.7 \text{ m}\Omega$ |  |   |   | IRF100P219<br>$R_{DS(on)} = 2.1 \text{ m}\Omega$   |
| 2-4   |   | IPB027N10N3 G<br>$R_{DS(on)} = 2.7 \text{ m}\Omega$   | IPB024N10N5<br>$R_{DS(on)} = 2.4 \text{ m}\Omega$   |  | IPP023N10N5<br>$R_{DS(on)} = 2.3 \text{ m}\Omega$     |   | IRFP4468PBF<br>$R_{DS(on)} = 2.6 \text{ m}\Omega$  |
|   |   | IPB027N10N5<br>$R_{DS(on)} = 2.7 \text{ m}\Omega$     | IPB025N10N3 G<br>$R_{DS(on)} = 2.5 \text{ m}\Omega$ | IPI030N10N3 G<br>$R_{DS(on)} = 3.0 \text{ m}\Omega$  | IPP030N10N5<br>$R_{DS(on)} = 3.0 \text{ m}\Omega$     | IPA030N10N3 G<br>$R_{DS(on)} = 3.0 \text{ m}\Omega$ |  |
|   |   | IPB033N10N5LF<br>$R_{DS(on)} = 3.3 \text{ m}\Omega$   | IPB032N10N5<br>$R_{DS(on)} = 3.2 \text{ m}\Omega$   |  | IPP030N10N5<br>$R_{DS(on)} = 3.0 \text{ m}\Omega$     |   |  |
|   |   |   | IPB039N10N3 G<br>$R_{DS(on)} = 3.9 \text{ m}\Omega$ |  | IPP039N10N5<br>$R_{DS(on)} = 3.9 \text{ m}\Omega$     |   |  |
| 4-10  | IPD050N10N5<br>$R_{DS(on)} = 5.0 \text{ m}\Omega$     | IPB042N10N3 G<br>$R_{DS(on)} = 4.2 \text{ m}\Omega$   |   | IPI045N10N3 G<br>$R_{DS(on)} = 4.5 \text{ m}\Omega$  | IRFB4110PBF<br>$R_{DS(on)} = 4.5 \text{ m}\Omega$     | IPA045N10N3 G<br>$R_{DS(on)} = 4.5 \text{ m}\Omega$ | IRFP4110PBF<br>$R_{DS(on)} = 4.5 \text{ m}\Omega$  |
|   | IPD068N10N3 G<br>$R_{DS(on)} = 6.8 \text{ m}\Omega$   | IRFS4010TRLPBF<br>$R_{DS(on)} = 4.7 \text{ m}\Omega$  |   |  | IPP045N10N3 G<br>$R_{DS(on)} = 4.5 \text{ m}\Omega$   | IPA083N10N5<br>$R_{DS(on)} = 8.3 \text{ m}\Omega$   | IRFP4310ZPBF<br>$R_{DS(on)} = 6.0 \text{ m}\Omega$ |
|   |   | IPB065N10N3 G<br>$R_{DS(on)} = 6.5 \text{ m}\Omega$   |   |  | IRFB4310ZPBF<br>$R_{DS(on)} = 6.0 \text{ m}\Omega$    | IPA086N10N3 G<br>$R_{DS(on)} = 8.6 \text{ m}\Omega$ |  |
|   |   | IRFS4310ZTRLPBF<br>$R_{DS(on)} = 7.0 \text{ m}\Omega$ |   |  |   |   |  |
|   |   |   |   | IPI072N10N3 G<br>$R_{DS(on)} = 7.2 \text{ m}\Omega$  | IPP072N10N3 G<br>$R_{DS(on)} = 7.2 \text{ m}\Omega$   |   |  |
|   | IPD082N10N3 G<br>$R_{DS(on)} = 8.2 \text{ m}\Omega$   |   |   |  | IPP083N10N5<br>$R_{DS(on)} = 8.3 \text{ m}\Omega$     |   |  |
|   |   | IPB083N10N3 G<br>$R_{DS(on)} = 8.3 \text{ m}\Omega$   |   | IPI086N10N3 G<br>$R_{DS(on)} = 8.6 \text{ m}\Omega$  | IPP086N10N3 G<br>$R_{DS(on)} = 8.6 \text{ m}\Omega$   |   |  |
|   |   | IRFS4410ZTRLPBF<br>$R_{DS(on)} = 9.0 \text{ m}\Omega$ |   |  | IRFS4410ZTRLPBF<br>$R_{DS(on)} = 9.0 \text{ m}\Omega$ |   | IRFP4410ZPBF<br>$R_{DS(on)} = 9.0 \text{ m}\Omega$ |
| 10-25   | IPD122N10N3 G<br>$R_{DS(on)} = 12.2 \text{ m}\Omega$  |   |   |  |   |   |  |
|   | IPD12CN10N G<br>$R_{DS(on)} = 12.4 \text{ m}\Omega$   | IPB123N10N3 G<br>$R_{DS(on)} = 12.3 \text{ m}\Omega$  |   |  |   |   |  |
|   | IRFR4510TRLPBF<br>$R_{DS(on)} = 13.9 \text{ m}\Omega$ | IRFS4510TRLPBF<br>$R_{DS(on)} = 13.9 \text{ m}\Omega$ |   |  |   |   |  |
|   | IPD180N10N3 G<br>$R_{DS(on)} = 18.0 \text{ m}\Omega$  |   |   | IPI180N10N3 G<br>$R_{DS(on)} = 18.0 \text{ m}\Omega$ |   |   |  |
| >25   | IPD25CN10N G<br>$R_{DS(on)} = 25.0 \text{ m}\Omega$   |   |   |  |   |   |  |
|   | IPD33CN10N G<br>$R_{DS(on)} = 33.0 \text{ m}\Omega$   |   |   |  |   |   |  |
|   | IPD78CN10N G<br>$R_{DS(on)} = 78.0 \text{ m}\Omega$   |   |   |  |   |   |  |



## OptiMOS™ 和 StrongIRFET™ 100 V 正常电平

| $R_{DS(on),max.}$<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | 裸芯片<br>( $R_{DS(on)}$ 典型)                       | DirectFET™   | PQFN 3.3 x 3.3                                     | SuperSO8  | SO-8   | TO-无铅  |
|---|---|--|--|---|--|--|
| 1-2   | IPC302N10N3<br>$R_{DS(on)}=1.7\text{ m}\Omega$  |  |  |   |  | IPT015N10N5<br>$R_{DS(on)}=1.5\text{ m}\Omega$ |
|   | IPC313N10N3R<br>$R_{DS(on)}=1.9\text{ m}\Omega$ |  |  | BSC027N10NS5<br>$R_{DS(on)}=2.7\text{ m}\Omega$       |  | IPT020N10N3<br>$R_{DS(on)}=2.0\text{ m}\Omega$ |
|   |   |  |  |   |  | IPT020N10N5<br>$R_{DS(on)}=2.0\text{ m}\Omega$ |
| 2-4   | IPC26N10NR<br>$R_{DS(on)}=3.2\text{ m}\Omega$   | IRF7769L1TRPBF<br>$R_{DS(on)}=3.5\text{ m}\Omega$                |  | BSC035N10NS5<br>$R_{DS(on)}=3.5\text{ m}\Omega$       |  | IPT026N10N5<br>$R_{DS(on)}=2.6\text{ m}\Omega$ |
|   | IPC173N10N3<br>$R_{DS(on)}=3.6\text{ m}\Omega$  |  |  | BSC040N10NS5<br>$R_{DS(on)}=4.0\text{ m}\Omega$       |  |  |
| 4-10  |   | IRF100DM116 <sup>3)</sup><br>$R_{DS(on)}=4.3\text{ m}\Omega$     |  | BSC050N10NS5<br>$R_{DS(on)}=5.0\text{ m}\Omega$       |  |  |
|   |   | BSB056N10NN3 G<br>$R_{DS(on)}=5.6\text{ m}\Omega$                |  | BSC060N10NS3 G<br>$R_{DS(on)}=6.0\text{ m}\Omega$     |  |  |
|   |   |  |  | BSC070N10NS3 G<br>$R_{DS(on)}=7.0\text{ m}\Omega$     |  |  |
|   |   |  |  | BSC070N10NS5<br>$R_{DS(on)}=7.0\text{ m}\Omega$       |  |  |
|   |   |  |  | IRFH5010TRPBF<br>$R_{DS(on)}=9.0\text{ m}\Omega$      |  |  |
|   |   |  | BSZ097N10NS5<br>$R_{DS(on)}=9.7\text{ m}\Omega$    | BSC098N10NS5<br>$R_{DS(on)}=9.8\text{ m}\Omega$       |  |  |
| 10-25   |   |  |  | BSC109N10NS3 G<br>$R_{DS(on)}=10.9\text{ m}\Omega$    |  |  |
|   |   |  |  | BSC118N10NS G<br>$R_{DS(on)}=11.8\text{ m}\Omega$     |  |  |
|   |   | BSF134N10NJ3 G <sup>1)</sup><br>$R_{DS(on)}=13.4\text{ m}\Omega$ |  | IRFH7110TRPBF<br>$R_{DS(on)}=13.5\text{ m}\Omega$     |  |  |
|   | IPC045N10N3<br>$R_{DS(on)}=15.2\text{ m}\Omega$ |  | BSZ160N10NS3 G<br>$R_{DS(on)}=16.0\text{ m}\Omega$ | BSC160N10NS3 G<br>$R_{DS(on)}=16.0\text{ m}\Omega$    |  |  |
|   |   | IRF6662TRPBF<br>$R_{DS(on)}=22.0\text{ m}\Omega$                 |  | BSZ196N10NS G<br>$R_{DS(on)}=19.6\text{ m}\Omega$     | IRF7853TRPBF<br>$R_{DS(on)}=18.0\text{ m}\Omega$ |  |
| >25   |   | IRF6645TRPBF<br>$R_{DS(on)}=35.0\text{ m}\Omega$                 | BSZ440N10NS3 G<br>$R_{DS(on)}=44.0\text{ m}\Omega$ | BSC252N10NSF G<br>$R_{DS(on)}=25.2\text{ m}\Omega$    |  |  |
|   |   | IRF7665S2TRPBF<br>$R_{DS(on)}=62.0\text{ m}\Omega$               |  | BSZ440N10NS3 G<br>$R_{DS(on)}=44.0\text{ m}\Omega$    |  |  |
| 2 x 75  |   |  |  | BSC750N10ND G<br>$R_{DS(on)}=75.0\text{ m}\Omega$ ; 双 |  |  |
| 2 x 195   |   |  | IRFHM792TRPBF<br>$R_{DS(on)}=195.0\text{ m}\Omega$ |   |  |  |



## OptiMOS™ 和 StrongIRFET™ 100 V 逻辑电平

| $R_{DS(on),max.}$<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK) | TO-263<br>(D <sup>2</sup> PAK)                     | TO-263<br>(D <sup>2</sup> PAK 7-针)                | TO-220  | 裸芯片<br>( $R_{DS(on)}$ 典型)                                     | PQFN 2 x 2                                      | PQFN 3.3 x 3.3 | SuperSO8   | SOT-23   |
|---|------------------|--|---|---|---|---|----------------|--|--|
| 2-4   |                  |  | IRLS4030TRL7PP<br>$R_{DS(on)}=3.9\text{ m}\Omega$ |   |   |   |                | BSC034N10LS5<br>$R_{DS(on)}=3.4\text{ m}\Omega$  |  |
| 4-10  |                  | IRLS4030TRLPB<br>$R_{DS(on)}=4.3\text{ m}\Omega$   |   | IRLB4030PBF<br>$R_{DS(on)}=4.3\text{ m}\Omega$    |   |   |                | BSZ096N10LS5<br>$R_{DS(on)}=9.6\text{ m}\Omega$  |  |
| 10-25   |                  |  |   | IPPC12CN10L G<br>$R_{DS(on)}=12.0\text{ m}\Omega$ | IPC045N10L3 <sup>2)</sup><br>$R_{DS(on)}=16.0\text{ m}\Omega$ |   |                | BSZ146N10LS5<br>$R_{DS(on)}=14.6\text{ m}\Omega$ | BSC123N10LS G<br>$R_{DS(on)}=12.3\text{ m}\Omega$  |
|   |                  | IRLR3110ZTRPBF<br>$R_{DS(on)}=14.0\text{ m}\Omega$ |   |   |   |   |                | BSZ150N10LS3<br>$R_{DS(on)}=15.0\text{ m}\Omega$ | BSC146N10LS5<br>$R_{DS(on)}=14.6\text{ m}\Omega$   |
| >25   |                  |  |   |   | IPC020N10L3 <sup>2)</sup><br>$R_{DS(on)}=42.0\text{ m}\Omega$ | IRL100HS121<br>$R_{DS(on)}=42.0\text{ m}\Omega$ |                |  | BSC265N10LSF G<br>$R_{DS(on)}=26.5\text{ m}\Omega$ |
|   |                  |  |   |   |   |   |                |  | IRMLM0100<br>$R_{DS(on)}=220\text{ m}\Omega$       |

[www.infineon.com/powermosfet-12V-300V](http://www.infineon.com/powermosfet-12V-300V)

- 1) DirectFET™ S
- 2)  $R_{DS(on)}$  典型@ 4.5 V
- 3) 即将发布



## OptiMOS™ 和 StrongIRFET™ 120 V 正常电平

| $R_{DS(on),max.}$<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                                  | TO-263<br>(D²PAK)                                 | TO-263<br>(D²PAK 7-针) | TO-262<br>(I²PAK)                                 | TO-220  | 裸芯片<br>( $R_{DS(on)}$ 典型)                      | PQFN 3.3 x 3.3                                     | SuperSO8   |
|---|---|---|-----------------------|---|---|--|--|--|
| 2-4   |   |   |                       |   |   | IPC302N12N3<br>$R_{DS(on)}=2.5\text{ m}\Omega$ |  |  |
|   |   |   |                       |   |   | IPC26N12N<br>$R_{DS(on)}=3.0\text{ m}\Omega$   |  |  |
|   | IPB038N12N3 G<br>$R_{DS(on)}=3.8\text{ m}\Omega$  | IPB036N12N3 G<br>$R_{DS(on)}=3.6\text{ m}\Omega$  |                       |   |   | IPC26N12NR<br>$R_{DS(on)}=3.2\text{ m}\Omega$  |  |  |
| 4-10  |   |   |                       | IPI041N12N3 G<br>$R_{DS(on)}=4.1\text{ m}\Omega$  | IPP041N12N3 G<br>$R_{DS(on)}=4.1\text{ m}\Omega$  |  |  |  |
|   |   |   |                       |   | IPP048N12N3 G<br>$R_{DS(on)}=4.8\text{ m}\Omega$  |  |  |  |
|   |   |   |                       | IPI076N12N3 G<br>$R_{DS(on)}=7.6\text{ m}\Omega$  | IPP076N12N3 G<br>$R_{DS(on)}=7.6\text{ m}\Omega$  |  |  | BSC077N12NS3 G<br>$R_{DS(on)}=7.7\text{ m}\Omega$  |
| 10-25   | IPD110N12N3 G<br>$R_{DS(on)}=11.0\text{ m}\Omega$ |   |                       |   | IPP114N12N3 G<br>$R_{DS(on)}=11.4\text{ m}\Omega$ |  |  |  |
|   |   | IPB144N12N3 G<br>$R_{DS(on)}=14.4\text{ m}\Omega$ |                       | IPI147N12N3 G<br>$R_{DS(on)}=14.7\text{ m}\Omega$ | IPP147N12N3 G<br>$R_{DS(on)}=14.7\text{ m}\Omega$ |  | BSZ240N12NS3 G<br>$R_{DS(on)}=24.0\text{ m}\Omega$ | BSC190N12NS3 G<br>$R_{DS(on)}=19.0\text{ m}\Omega$ |



## OptiMOS™ 和 StrongIRFET™ 135-150 V 正常电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | 裸芯片<br>( $R_{DS(on)}$ 典型)                    | DirectFET™  | PQFN 3.3 x 3.3                                  | SuperSO8  | TO-无铅                                       |
|---|--|---|---|---|---|
| 4-10  | IPC302N15N3<br>$R_{DS(on)} = 4.9\text{ mΩ}$  |   |   | BSC093N15NS5<br>$R_{DS(on)} = 9.3\text{ mΩ}$    | IPT059N15N3<br>$R_{DS(on)} = 5.9\text{ mΩ}$ |
|   | IPC300N15N3R<br>$R_{DS(on)} = 4.9\text{ mΩ}$ |   |   |   |   |
| 10-25   |  | IRF7779L2TRPBF <sup>5)</sup><br>$R_{DS(on)} = 11.0\text{ mΩ}$ |   | BSC110N15NS5<br>$R_{DS(on)} = 11.0\text{ mΩ}$   |   |
|   |  |   |   | BSC160N15NS5<br>$R_{DS(on)} = 16.0\text{ mΩ}$   |   |
|   |  | BSB165N15NZ3 G<br>$R_{DS(on)} = 16.5\text{ mΩ}$               |   | BSC190N15NS3 G<br>$R_{DS(on)} = 19.0\text{ mΩ}$ |   |
| >25   |  | BSB280N15NZ3 G<br>$R_{DS(on)} = 28.0\text{ mΩ}$               | BSZ300N15NS5<br>$R_{DS(on)} = 30.0\text{ mΩ}$   | BSC360N15NS3 G<br>$R_{DS(on)} = 36.0\text{ mΩ}$ |   |
|   |  | IRF6643TRPBF<br>$R_{DS(on)} = 34.5\text{ mΩ}$                 | BSZ520N15NS3 G<br>$R_{DS(on)} = 52.0\text{ mΩ}$ | BSC520N15NS3 G<br>$R_{DS(on)} = 52.0\text{ mΩ}$ |   |
|   |  | IRF6775MTRPBF<br>$R_{DS(on)} = 56.0\text{ mΩ}$                | BSZ900N15NS3 G<br>$R_{DS(on)} = 90.0\text{ mΩ}$ |   |   |



## OptiMOS™ 和 StrongIRFET™ 135-150 V 正常电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                               | TO-263<br>(D <sup>2</sup> PAK)                           | TO-263<br>(D <sup>2</sup> PAK 7-引脚)                       | TO-263<br>(D <sup>2</sup> PAK 7-引脚+)        | TO-251/<br>TO-251 短导线<br>(IPAK/IPAK 短<br>导线) | TO-262<br>(iPAK)   | TO-220   | TO-220<br>FullPAK                              | TO-247                                       |
|---|--|--|---|---|--|--|--|--|--|
| 4-10  |  | IPB048N15N5<br>$R_{DS(on)} = 4.8\text{ mΩ}$              | IPB044N15N5<br>$R_{DS(on)} = 4.4\text{ mΩ}$               |   |  | IPI051N15N5<br>$R_{DS(on)} = 5.1\text{ mΩ}$                  | IPP051N15N5 <sup>2)</sup><br>$R_{DS(on)} = 5.1\text{ mΩ}$    |  | IRF150P220<br>$R_{DS(on)} = 2.5\text{ mΩ}$   |
|   |  | IPB048N15N5LF<br>$R_{DS(on)} = 4.8\text{ mΩ}$            | IRF135SA204 <sup>5)</sup><br>$R_{DS(on)} = 5.9\text{ mΩ}$ | IRF135SA204<br>$R_{DS(on)} = 5.9\text{ mΩ}$ |  |  |  |  | IRF150P221<br>$R_{DS(on)} = 4.8\text{ mΩ}$   |
|   |  | IPB072N15N3 G<br>$R_{DS(on)} = 7.2\text{ mΩ}$            | IPB060N15N5<br>$R_{DS(on)} = 6.0\text{ mΩ}$               |   |  | IPI075N15N3 G<br>$R_{DS(on)} = 7.5\text{ mΩ}$                | IPP075N15N3 G<br>$R_{DS(on)} = 7.5\text{ mΩ}$                |  | IRFP4568PBF<br>$R_{DS(on)} = 5.9\text{ mΩ}$  |
|   |  | IPB073N15N5<br>$R_{DS(on)} = 7.3\text{ mΩ}$              | IPB065N15N3 G<br>$R_{DS(on)} = 6.5\text{ mΩ}$             |   |  | IPI076N15N5<br>$R_{DS(on)} = 7.6\text{ mΩ}$                  | IPP076N15N5<br>$R_{DS(on)} = 7.6\text{ mΩ}$                  | IPA075N15N3 G<br>$R_{DS(on)} = 7.5\text{ mΩ}$  |  |
|   |  | IPB083N15N5LF<br>$R_{DS(on)} = 8.3\text{ mΩ}$            |   |   |  |  |  |  |  |
|   |  | IRF135S203 <sup>5)</sup><br>$R_{DS(on)} = 8.4\text{ mΩ}$ |   |   |  |  | IRF135B203 <sup>5)</sup><br>$R_{DS(on)} = 8.4\text{ mΩ}$     |  |  |
| 10-25   |  | IPB108N15N3 G<br>$R_{DS(on)} = 10.8\text{ mΩ}$           | IRFS4115TRL7PP<br>$R_{DS(on)} = 11.8\text{ mΩ}$           |   |  | IPI111N15N3 G<br>$R_{DS(on)} = 11.1\text{ mΩ}$               | IPP111N15N3 G<br>$R_{DS(on)} = 11.1\text{ mΩ}$               | IPA105N15N3 G<br>$R_{DS(on)} = 10.5\text{ mΩ}$ |  |
|   |  | IRFS4321<br>$R_{DS(on)} = 15.0\text{ mΩ}$                | IRFS4321TRL7PP<br>$R_{DS(on)} = 14.7\text{ mΩ}$           |   |  |  | IRFB4321PBF<br>$R_{DS(on)} = 15.0\text{ mΩ}$                 |  | IRFP4321PBF<br>$R_{DS(on)} = 15.5\text{ mΩ}$ |
|   |  | IPD200N15N3 G<br>$R_{DS(on)} = 20.0\text{ mΩ}$           | IPB200N15N3 G<br>$R_{DS(on)} = 20.0\text{ mΩ}$            |   |  |  | IPP200N15N3 G <sup>2)</sup><br>$R_{DS(on)} = 20.0\text{ mΩ}$ |  |  |
| >25   |  | IRFS4615PBF<br>$R_{DS(on)} = 42.0\text{ mΩ}$             |   |   |  |  | IRFB4615PBF<br>$R_{DS(on)} = 39.0\text{ mΩ}$                 |  |  |
|   | IRFR4615<br>$R_{DS(on)} = 42.0\text{ mΩ}$      | IRFS5615PBF<br>$R_{DS(on)} = 42.0\text{ mΩ}$             |   |   | IRFU4615PBF<br>$R_{DS(on)} = 42.0\text{ mΩ}$ |  | IRFB5615PBF<br>$R_{DS(on)} = 39.0\text{ mΩ}$                 |  |  |
|   | IPD530N15N3 G<br>$R_{DS(on)} = 53.0\text{ mΩ}$ | IPB530N15N3 G<br>$R_{DS(on)} = 53.0\text{ mΩ}$           |   |   |  | IPI530N15N3 G <sup>2)</sup><br>$R_{DS(on)} = 53.0\text{ mΩ}$ | IPP530N15N3 G <sup>2)</sup><br>$R_{DS(on)} = 53.0\text{ mΩ}$ |  |  |
|   |  |  |   |   |  |  | IRFB4019PBF<br>$R_{DS(on)} = 95.0\text{ mΩ}$                 |  |  |

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2) 8 V 额定( $R_{DS(on)}$  也于 @  $V_{GS} = 8\text{ V}$  规定)

3) 开发中

5) 135 V



## OptiMOS™ 和 StrongIRFET™ 200 V 正常电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)  | TO-263<br>(D²PAK)                                      | TO-263<br>(D²PAK+)                                  | TO-262<br>(I²PAK)                                    | TO-220  | TO-247   |
|---|---|--|---|--|---|--|
| 4-10  |   |  |   |  |   | IRF200P222<br>$R_{DS(on)} = 6.6 \text{ m}\Omega$   |
|   |   |  |   |  |   | IRFP4668PBF<br>$R_{DS(on)} = 9.7 \text{ m}\Omega$  |
| 10-25   | IPB107N20N3 G<br>$R_{DS(on)} = 10.7 \text{ m}\Omega$              | IRF200S234<br>$R_{DS(on)} = 16.9 \text{ m}\Omega$      | IP110N20N3 G<br>$R_{DS(on)} = 11.0 \text{ m}\Omega$ | IP110N20N3 G<br>$R_{DS(on)} = 11.0 \text{ m}\Omega$  | IRF200P223<br>$R_{DS(on)} = 11.5 \text{ m}\Omega$   |  |
|   | IPB107N20NA <sup>4)</sup><br>$R_{DS(on)} = 10.7 \text{ m}\Omega$  |  |   |  |   |  |
|   | IPB110N20N3LF<br>$R_{DS(on)} = 11.0 \text{ m}\Omega$              |  |   |  | IRFP4127PBF<br>$R_{DS(on)} = 21.0 \text{ m}\Omega$  |  |
|   | IPB117N20NFD<br>$R_{DS(on)} = 11.7 \text{ m}\Omega$               |  |   |  | IRFB4127PBF<br>$R_{DS(on)} = 20.0 \text{ m}\Omega$  | IRFP4227PBF<br>$R_{DS(on)} = 25.0 \text{ m}\Omega$ |
|   | IPB156N22NFD <sup>2)</sup><br>$R_{DS(on)} = 15.6 \text{ m}\Omega$ |  |   |  |   |  |
|   | IRFS4127TRLPBF<br>$R_{DS(on)} = 22.0 \text{ m}\Omega$             |  |   |  |   |  |
| >25   | IRFS4227TRLPBF<br>$R_{DS(on)} = 26.0 \text{ m}\Omega$             |  |   |  | IRFB4227PBF<br>$R_{DS(on)} = 26.0 \text{ m}\Omega$  |  |
|   | IPD320N20N3 G<br>$R_{DS(on)} = 32.0 \text{ m}\Omega$              | IPB320N20N3 G<br>$R_{DS(on)} = 32.0 \text{ m}\Omega$   |   | IPI320N20N3 G<br>$R_{DS(on)} = 32.0 \text{ m}\Omega$ | IP320N20N3 G<br>$R_{DS(on)} = 32.0 \text{ m}\Omega$ |  |
|   |   |  |   |  | IRFB4620PBF<br>$R_{DS(on)} = 72.5 \text{ m}\Omega$  |  |
|   | IRFR4620TRLPBF<br>$R_{DS(on)} = 78.0 \text{ m}\Omega$             | IRFS4620TRLPBF<br>$R_{DS(on)} = 78.0 \text{ m}\Omega$  |   |  | IRFB5620PBF<br>$R_{DS(on)} = 72.5 \text{ m}\Omega$  |  |
|   |   | IRFS4020TRLPBF<br>$R_{DS(on)} = 105.0 \text{ m}\Omega$ |   |  | IRFB4020PBF<br>$R_{DS(on)} = 100.0 \text{ m}\Omega$ |  |
|   |   |  |   |  | IRF200B211<br>$R_{DS(on)} = 170.0 \text{ m}\Omega$  |  |



## OptiMOS™ 和 StrongIRFET™ 200 V 正常电平

| $R_{DS(on)}$ , max.<br>@ $V_{GS} = 10\text{ V}$<br>[mΩ] | 裸芯片<br>( $R_{DS(on)}$ 典型)                            | DirectFET™   | PQFN 3.3 x 3.3   | SuperSO8  | SO-8  | TO-无铅   | TO-247  |
|---|--|--|--|---|---|---|---|
| 4-10  | IPC300N20N3<br>$R_{DS(on)} = 9.2 \text{ m}\Omega$    |  |  |   |   |   | IRF200P222<br>$R_{DS(on)} = 6.6 \text{ m}\Omega$  |
|   | IPC302N20N3<br>$R_{DS(on)} = 9.2 \text{ m}\Omega$    |  |  |   |   |   |   |
| 10-25   | IPC302N20NFD<br>$R_{DS(on)} = 9.4 \text{ m}\Omega$   |  |  | BSC220N20NSFD<br>$R_{DS(on)} = 22.0 \text{ m}\Omega$  |   | IFT111N20NFD<br>$R_{DS(on)} = 11.1 \text{ m}\Omega$ | IRF200P223<br>$R_{DS(on)} = 11.5 \text{ m}\Omega$ |
|   |  |  |  | BSC320N20NS3 G<br>$R_{DS(on)} = 32.0 \text{ m}\Omega$ |   |   |   |
| >25   |  |  |  | BSC350N20NSFD<br>$R_{DS(on)} = 35.0 \text{ m}\Omega$  |   |   |   |
|   |  |  |  | BSC500N20NS3G<br>$R_{DS(on)} = 50.0 \text{ m}\Omega$  |   |   |   |
|   | IRF6641TRPBF<br>$R_{DS(on)} = 59.9 \text{ m}\Omega$  |  |  | IRFH5020<br>$R_{DS(on)} = 55.0 \text{ m}\Omega$       |   |   |   |
|   |  |  | BSZ900N20NS3 G<br>$R_{DS(on)} = 90.0 \text{ m}\Omega$  | BSC900N20NS3 G<br>$R_{DS(on)} = 90.0 \text{ m}\Omega$ | IRF7820TRPBF<br>$R_{DS(on)} = 78.0 \text{ m}\Omega$ |   |   |
|   | IRF6785TRPBF<br>$R_{DS(on)} = 100.0 \text{ m}\Omega$ | BSZ12DN20NS3 G<br>$R_{DS(on)} = 125.0 \text{ m}\Omega$ | BSC12DN20NS3 G<br>$R_{DS(on)} = 125.0 \text{ m}\Omega$ |   |   |   |   |
|   |  | BSZ22DN20NS3 G<br>$R_{DS(on)} = 225.0 \text{ m}\Omega$ | BSC22DN20NS3 G<br>$R_{DS(on)} = 225.0 \text{ m}\Omega$ |   |   |   |   |



## OptiMOS™ 和 StrongIRFET™ 250 V 正常电平



| $R_{DS(on),max.}$<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | TO-252<br>(DPAK)                                  | TO-263<br>(D²PAK)                                  | TO-262<br>(I²PAK)                                 | TO-220  | TO-247  | 裸芯片<br>( $R_{DS(on)}$ 典型)                           | PQFN 3.3 x 3.3                                      | SuperSO8  | TO-无铅  |
|---|---|--|---|---|---|---|---|---|--|
| 10-25   |   | IPB200N25N3 G<br>$R_{DS(on)}=20.0\text{ m}\Omega$  | IPI200N25N3 G<br>$R_{DS(on)}=20.0\text{ m}\Omega$ | IPP200N25N3 G<br>$R_{DS(on)}=20.0\text{ m}\Omega$ | IRF250P224<br>$R_{DS(on)}=12.0\text{ m}\Omega$  |   |   |   |  |
|   |   |  |   | IPP220N25NFD<br>$R_{DS(on)}=22.0\text{ m}\Omega$  | IRFP4768PBF<br>$R_{DS(on)}=17.5\text{ m}\Omega$ | IPC302N25N3<br>$R_{DS(on)}=16.0\text{ m}\Omega$     |   |   | IPT210N25NFD<br>$R_{DS(on)}=21.0\text{ m}\Omega$ |
|   |   |  |   |   | IRF250P225<br>$R_{DS(on)}=22.0\text{ m}\Omega$  |   |   |   |  |
| >25   |   |  |   |   |   |   | BSC430N25NSFD<br>$R_{DS(on)}=43.0\text{ m}\Omega$   |   |  |
|   |   | IRFS4229TRLPBF<br>$R_{DS(on)}=48.0\text{ m}\Omega$ |   | IRFB4332PBF<br>$R_{DS(on)}=33.0\text{ m}\Omega$   | IRFP4332PBF<br>$R_{DS(on)}=33.0\text{ m}\Omega$ |   | BSC600N25NS3 G<br>$R_{DS(on)}=60.0\text{ m}\Omega$  |   |  |
|   |   |  |   |   |   |   | BSC670N25NSFD<br>$R_{DS(on)}=67.0\text{ m}\Omega$   |   |  |
|   | IPD600N25N3 G<br>$R_{DS(on)}=60.0\text{ m}\Omega$ | IPB600N25N3 G<br>$R_{DS(on)}=60.0\text{ m}\Omega$  | IPI600N25N3 G<br>$R_{DS(on)}=60.0\text{ m}\Omega$ | IRFB4229PBF<br>$R_{DS(on)}=46.0\text{ m}\Omega$   | IRFP4229PBF<br>$R_{DS(on)}=46.0\text{ m}\Omega$ | BSZ16DN25NS3 G<br>$R_{DS(on)}=165.0\text{ m}\Omega$ | IRFH5025<br>$R_{DS(on)}=100.0\text{ m}\Omega$       |   |  |
|   |   |  |   | IPP600N25N3 G<br>$R_{DS(on)}=60.0\text{ m}\Omega$ |   | IPC045N25N3<br>$R_{DS(on)}=146.0\text{ m}\Omega$    | BSZ42DN25NS3 G<br>$R_{DS(on)}=425.0\text{ m}\Omega$ | BSC16DN25NS3 G<br>$R_{DS(on)}=165.0\text{ m}\Omega$ |  |
|   |   |  |   |   |   |   |   |   |  |

## OptiMOS™ 和 StrongIRFET™ 300 V 正常电平



| $R_{DS(on),max.}$<br>@ $V_{GS}=10\text{ V}$<br>[mΩ] | TO-263<br>(D²PAK)                              | TO-220  | TO-247  | SuperSO8   |
|---|--|---|---|--|
| 0-25  |  |   | IRF300P226<br>$R_{DS(on)}=19.0\text{ m}\Omega$  |  |
| >25   | IPB407N30N<br>$R_{DS(on)}=40.7\text{ m}\Omega$ | IPP410N30N<br>$R_{DS(on)}=41.0\text{ m}\Omega$  | IRFP4868PBF<br>$R_{DS(on)}=32.0\text{ m}\Omega$ |  |
|   |  |   | IRF300P227<br>$R_{DS(on)}=40.0\text{ m}\Omega$  |  |
|   |  | IRFB4137PBF<br>$R_{DS(on)}=69.0\text{ m}\Omega$ | IRFP4137PBF<br>$R_{DS(on)}=69.0\text{ m}\Omega$ | BSC13DN30NSFD<br>$R_{DS(on)}=130.0\text{ m}\Omega$ |



## 小信号 P-沟道

| 电压 [V]     | SOT-223 | TSOP-6                                    | SOT-89 | SC59                           | SOT-23  | SOT-323                                | SOT-363                              |
|------------|---------|---|--------|--------------------------------|---|--|--------------------------------------|
| P-沟道MOSFET | -250    | BSP317P<br>4 Ω, -0.43 A, LL               |        | BSS192P<br>12 Ω, -0.19 A, LL   | BSR92P<br>11 Ω, -0.14 A, LL                   |  |                                      |
|            |         | BSP92P<br>12 Ω, -0.26 A, LL               |        |                                |   |  |                                      |
|            | -100    | BSP321P<br>900 mΩ, -0.98 A, NL            |        |                                |   |  |                                      |
|            |         | BSP322P<br>800 mΩ, -1.0 A, LL             |        |                                |   |  |                                      |
|            |         | BSP316P<br>1.8 Ω, -0.68 A, LL             |        |                                | BSR316P<br>1.8 Ω, -0.36 A, LL                 |  |                                      |
|            | -60     | BSP612P<br>120 mΩ, 3 A, LL                |        |                                |   | ISS17EP06LM<br>1.7Ω, -0.3 A, LL        |                                      |
|            |         | BSP613P<br>130 mΩ, 2.9 A, NL              |        |                                |   | BSS83P<br>2 Ω, -0.33 A, LL             | BSS84PW<br>8 Ω, -0.15 A, LL          |
|            |         | BSP170P<br>300 mΩ, -1.9 A, NL             |        |                                |   | ISS55EP06LM<br>5.5 Ω, -0.18 A, NL      |                                      |
|            |         | BSP171P<br>300 mΩ, -1.9 A, LL             |        |                                |   | BSS84P<br>8 Ω, -0.17 A, LL             |                                      |
|            |         | BSP315P<br>800 mΩ, -1.17 A, LL            |        |                                |   |  |                                      |
|            |         | ISP650P06NM<br>65 mΩ, -3.7 A, NL          |        | BSR315P<br>800 mΩ, -0.62 A, LL |   |  |                                      |
|            |         | ISP12DP06NM<br>125 mΩ, -2.8, NL           |        |                                |   |  |                                      |
|            |         | ISP25DP06LM<br>250 mΩ, -1.9 A, LL         |        |                                |   |  |                                      |
|            |         | ISP25DP06NM<br>250 mΩ, -1.9 A, NL         |        |                                |   |  |                                      |
|            |         | ISP75DP06LM<br>750 mΩ, -1.1 A, LL         |        |                                |   |  |                                      |
|            | -30     | BSL303SPE<br>33 mΩ, -6.3 A, LL            |        |                                |   | BSS308PE<br>80 mΩ, -2.1 A, LL, ESD     | BSD314SPE<br>140 mΩ, -1.5 A, LL, ESD |
|            |         | IRFTS9342TRPBF*<br>40 mΩ, -5.8 A, LL      |        |                                |   | BSS314PE<br>140 mΩ, -1.5 A,<br>LL, ESD |                                      |
|            |         | BSL307SP<br>43 mΩ, -5.5 A, LL             |        |                                |   | BSS315P<br>150 mΩ, -1.5 A, LL          |                                      |
|            |         | BSL305SPE<br>45 mΩ, -5.5 A, LL            |        |                                |   |  |                                      |
|            |         | BSL308PE<br>80 mΩ, -2.1 A, LL, 双,<br>ESD  |        |                                |   |  |                                      |
|            |         | BSL314PE<br>140 mΩ, -1.5 A, LL,<br>ESD, 双 |        |                                |   |  |                                      |
|            | -20     | BSL207SP<br>41 mΩ, -6 A, SLL              |        |                                | IRLML2244* <sup>1)</sup><br>54 mΩ, 4.3 A, LL  |  |                                      |
|            |         | BSL211SP<br>67 mΩ, -4.7 A, SLL            |        |                                | IRLML2246* <sup>1)</sup><br>135 mΩ, 2.6 A, LL | BSS209PW<br>550 mΩ, -0.58 A, SLL       | BSV236SP<br>175 mΩ, -1.5 A, SLL      |
|            |         |   |        |                                | BSS215P<br>150 mΩ, -1.5 A, SLL                | BSS223PW<br>1.2 Ω, -0.39 A, SLL        | BSD223P<br>1.2 Ω, -0.39 A, SLL, 双    |

## 互补小信号



| 电压 [V] | SOT-223 | TSOP-6  | SOT-89 | SC59 | SOT-23 | SOT-323 | SOT-363  |
|--------|---------|---|--------|------|--------|---------|--|
| 互补     | -20/20  | BSL215C<br>N: 140 mΩ, 1.5 A, SLL<br>P: 150 mΩ, 1.5 A, SLL |        |      |        |         | BSD235C<br>N: 350 mΩ, 0.95 A, SLL<br>P: 1.2 Ω, 0.53 A, SLL |
|        |         |   |        |      |        |         |  |
|        | -30/30  | BSL308C<br>N: 57 mΩ, 2.3 A, LL<br>P: 80 mΩ, -2.0 A, LL    |        |      |        |         |  |
|        |         |   |        |      |        |         |  |
|        |         | BSL316C<br>N: 160 mΩ, 1.4 A, LL<br>P: 150 mΩ, -1.5 A, LL  |        |      |        |         |  |

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所有产品均符合汽车AEC Q101(标有\*的零件除外)

1) R<sub>D(on)</sub> 4.5 V 额定



## 小信号 N-沟道

| 电压 [V] | SOT-223                        | TSOP-6   | SOT-89                      | SC59                         | SOT-23   | SOT-323                        | SOT-363                           |
|--------|--------------------------------|--|-----------------------------|------------------------------|--|--------------------------------|-----------------------------------|
| 20     |                                | BSL802SN<br>22 mΩ, 7.5 A, ULL                  |                             | BSR802N<br>23 mΩ, 3.7 A, ULL | IRML6244* <sup>1)</sup><br>21 mΩ, 6.3 A, LL              |                                |                                   |
|        |                                | BSL202SN<br>22 mΩ, 7.5 A, SLL                  |                             | BSR202N<br>21 mΩ, 3.8 A, SLL | IRML6246* <sup>1)</sup><br>46 mΩ, 4.1 A, LL              |                                |                                   |
|        |                                | BSL205N<br>50 mΩ, 2.5 A, SLL, 双                |                             |                              | BSS205N<br>50 mΩ, 2.5 A, SLL                             |                                | BSD214SN<br>140 mΩ, 1.5 A, SLL    |
|        |                                |  |                             |                              | BSS806NE<br>57 mΩ, 2.3 A, ULL, ESD                       |                                | BSD816SN<br>160 mΩ, 1.4 A, ULL    |
|        |                                | BSL207N<br>70 mΩ, 2.1 A, SLL, 双                |                             |                              | BSS806N<br>57 mΩ, 2.3 A, ULL                             | BSS214NW<br>140 mΩ, 1.5 A, SLL | BSD235N<br>350 mΩ, 0.95 A, SLL, 双 |
|        |                                | BSL214N<br>140 mΩ, 1.5 A, SLL, 双               |                             |                              | BSS214N<br>140 mΩ, 1.5 A, SLL                            | BSS816NW<br>160 mΩ, 1.4 A, ULL | BSD840N<br>400 mΩ, 0.88 A, ULL, 双 |
| 25     |                                |  |                             |                              | IRFL8244*<br>24 mΩ, 5.8 A, NL                            |                                |                                   |
| 30     |                                | IRLTS6342* <sup>1)</sup><br>17.5 mΩ, 8.3 A, LL |                             | BSR302N<br>23 mΩ, 3.7 A, LL  | IRML0030*<br>27 mΩ, 5.3 A, LL                            |                                | BSD316SN<br>160 mΩ, 1.4A, LL      |
|        |                                | IRFTS8342*<br>19 mΩ, 8.2 A, NL                 |                             |                              | IRML6344* <sup>1)</sup><br>29 mΩ, 5.0 A, LL              |                                |                                   |
|        |                                | BSL302SN<br>25 mΩ, 7.1 A, LL                   |                             |                              | BSS306N<br>57 mΩ, 2.3 A, LL                              |                                |                                   |
|        |                                | BSL306N<br>57 mΩ, 2.3 A, LL, 双                 |                             |                              | IRML6346* <sup>1)</sup><br>63 mΩ, 3.4 A, LL              |                                |                                   |
|        |                                |  |                             |                              | IRML2030*<br>100 mΩ, 1.4 A, LL                           |                                |                                   |
|        |                                |  |                             |                              | BSS316N<br>160 mΩ, 1.4 A, LL                             |                                |                                   |
| 55     |                                |  |                             |                              | BSS670S2L<br>650 mΩ, 0.54 A, LL                          | BSS340NW<br>400 mΩ, 0.88 A, LL |                                   |
| 60     | BSP318S<br>90 mΩ, 2.6 A, LL    | BSL606SN<br>60 mΩ, 4.5 A, LL                   | BSS606N<br>60 mΩ, 3.2 A, LL | BSR606N<br>60 mΩ, 2.3 A, LL  | IRML0060*<br>92 mΩ, 2.7 A, LL                            | BSS138W<br>3.5 Ω, 0.28 A, LL   | 2N7002DW<br>3 Ω, 0.3 A, LL, 双     |
|        | BSP320S<br>120 mΩ, 2.9 A, NL   |  |                             |                              | IRML2060*<br>480 mΩ, 1.2 A, LL                           | SN7002W<br>5 Ω, 0.23 A, LL     |                                   |
|        | BSP295<br>300 mΩ, 1.8 A, LL    |  |                             |                              | BSS138N<br>3.5 Ω, 0.23 A, LL                             |                                |                                   |
|        |                                |  |                             |                              | BSS7728N<br>5 Ω, 0.2 A, LL                               |                                |                                   |
|        |                                |  |                             |                              | SN7002N<br>5 Ω, 0.2 A, LL                                |                                |                                   |
|        |                                |  |                             |                              | 2N7002<br>3 Ω, 0.3 A, LL                                 |                                |                                   |
| 75     | BSP716N<br>160 mΩ, 2.3 A, LL   | BSL716SN<br>150 mΩ, 2.5 A, LL                  |                             |                              | BSS159N<br>8 Ω, 0.13 A, 已部署                              |                                |                                   |
| 80     |                                |  |                             |                              |  |                                |                                   |
| 100    | BSP372N<br>230 mΩ, 1.8 A, LL   | BSL372SN<br>220 mΩ, 2.0 A, LL                  |                             |                              | IRML0100*<br>220 mΩ, 1.6 A, LL                           |                                |                                   |
|        | BSP373N<br>240 mΩ, 1.8 A, NL   | BSL373SN<br>230 mΩ, 2.0 A, NL                  |                             |                              | BSS119N<br>6 Ω, 0.19 A, LL<br>$V_{GS(th)}$ 1.8 V 至 2.3 V |                                |                                   |
|        | BSP296N<br>600 mΩ, 1.2 A, LL   | BSL296SN<br>460 mΩ, 1.4 A, LL                  |                             |                              | BSS123N<br>6 Ω, 0.19 A, LL<br>$V_{GS(th)}$ 0.8 V 至 1.8 V |                                |                                   |
|        |                                |  |                             |                              | BSS169<br>12 Ω, 0.09 A, 已部署                              |                                |                                   |
| 200    | BSP297<br>1.8 Ω, 0.66 A, LL    |  |                             |                              |  |                                |                                   |
|        | BSP149<br>3.5 Ω, 0.14 A, 已部署   |  |                             |                              |  |                                |                                   |
| 240    | BSP88<br>6 Ω, 0.35 A, 2.8 V 额定 |  | BSS87<br>6 Ω, 0.26 A, LL    |                              | BSS131<br>14 Ω, 0.1 A, LL                                |                                |                                   |
|        | BSP89<br>6 Ω, 0.35 A, LL       |  |                             |                              |  |                                |                                   |
|        | BSP129<br>6 Ω, 0.05 A, 已部署     |  |                             |                              |  |                                |                                   |
| 250    |                                |  |                             |                              | BSS139<br>30 Ω, 0.03 A, 已部署                              |                                |                                   |
| 400    | BSP298<br>3 Ω, 0.5 A, NL       |  |                             |                              |  |                                |                                   |
|        | BSP179<br>24 Ω, 0.04 A, 已部署    |  |                             |                              |  |                                |                                   |
|        | BSP324<br>25 Ω, 0.17 A, LL     |  |                             |                              |  |                                |                                   |
| 500    | BSP299<br>4 Ω, 0.4 A, NL       |  |                             |                              |  |                                |                                   |
| 600    | BSP125<br>45 Ω, 0.12 A, LL     |  | BSS225<br>45 Ω, 0.09 A, LL  |                              | BSS127<br>500 Ω, 0.023 A, LL                             |                                |                                   |
|        | BSP135<br>60 Ω, 0.02 A, 已部署    |  |                             |                              | BSS126<br>700 Ω, 0.007 A, 已部署                            |                                |                                   |
| 800    | BSP300<br>20 Ω, 0.19 A, NL     |  |                             |                              |  |                                |                                   |

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1)  $R_{DS(on)}$  于 4.5 V 规定

## 功率 P-沟道MOSFET



| 电压 [V] | TO-252 (DPAK)  | DirectFET™  | SOT-23 | PQFN 3.3 x 3.3   | SuperSO8 | SO-8  | PQFN 2 x 2  | TSOP-6  |
|--------|--|---|--------|--|----------|---|---|---|
| -20    |  |   |        |  |          | BSO201SP H<br>$R_{DS(on)} = 7.0 \text{ m}\Omega$                  |   |   |
|        |  |   |        |  |          | BSO203SP H<br>$R_{DS(on)} = 21.0 \text{ m}\Omega$                 |   |   |
|        |  |   |        |  |          | BSO203P H<br>$R_{DS(on)} = 21.0 \text{ m}\Omega$                  |   |   |
|        |  |   |        |  |          |   | IRLHS2242TRPBF**<br>$R_{DS(on)} = 31.0 \text{ m}\Omega$         | IRLTS2242<br>$R_{DS(on)} = 39 \text{ m}\Omega$    |
|        |  | IRLML2244 <sup>2)</sup> ***<br>$R_{DS(on)} = 54 \text{ m}\Omega$  |        |  |          | BSO207P H<br>$R_{DS(on)} = 45.0 \text{ m}\Omega$                  |   |   |
|        |  | IRLML2246 <sup>2)</sup> ***<br>$R_{DS(on)} = 135 \text{ m}\Omega$ |        |  |          | BSO211P H<br>$R_{DS(on)} = 67.0 \text{ m}\Omega$                  |   |   |
|        |  |   |        | BSC030P03NS3 G<br>$R_{DS(on)} = 3.0 \text{ m}\Omega$               |          | IRF9310<br>$R_{DS(on)} = 4.6 \text{ m}\Omega$                     |   |   |
|        | IPD042P03L3 G<br>$R_{DS(on)} = 4.2 \text{ m}\Omega$              |   |        | BSC060P03NS3E G<br>$R_{DS(on)} = 6.0 \text{ m}\Omega; \text{ESD}$  |          | IRF9317<br>$R_{DS(on)} = 6.6 \text{ m}\Omega$                     |   |   |
|        |  |   |        | BSZ086P03NS3 G<br>$R_{DS(on)} = 8.6 \text{ m}\Omega$               |          | IRF9321<br>$R_{DS(on)} = 7.2 \text{ m}\Omega$                     |   |   |
|        | SPD50P03L G <sup>1)*</sup><br>$R_{DS(on)} = 7.0 \text{ m}\Omega$ | IRF9395M<br>$R_{DS(on)} = 7.0 \text{ m}\Omega; \text{双}$          |        | BSZ086P03NS3E G<br>$R_{DS(on)} = 8.6 \text{ m}\Omega$              |          | BSO080P03NS3 G<br>$R_{DS(on)} = 8.0 \text{ m}\Omega$              |   |   |
| -30    |  |   |        | BSC084P03NS3 G<br>$R_{DS(on)} = 8.4 \text{ m}\Omega$               |          | BSO080P03NS3E G<br>$R_{DS(on)} = 8.0 \text{ m}\Omega; \text{ESD}$ |   |   |
|        |  |   |        | BSC084P03NS3E G<br>$R_{DS(on)} = 8.4 \text{ m}\Omega; \text{ESD}$  |          | BSO080P03S H<br>$R_{DS(on)} = 8.0 \text{ m}\Omega$                |   |   |
|        |  |   |        | BSZ120P03NS3 G<br>$R_{DS(on)} = 12.0 \text{ m}\Omega$              |          | BSO301SP H<br>$R_{DS(on)} = 8.0 \text{ m}\Omega$                  |   |   |
|        |  |   |        | BSZ120P03NS3E G<br>$R_{DS(on)} = 12.0 \text{ m}\Omega; \text{ESD}$ |          | IRF9328<br>$R_{DS(on)} = 11.9 \text{ m}\Omega$                    |   |   |
|        |  |   |        |  |          | IRF9388TRPBF<br>$R_{DS(on)} = 11.9 \text{ m}\Omega$               |   |   |
|        |  |   |        |  |          | BSO130P03S H<br>$R_{DS(on)} = 13.0 \text{ m}\Omega$               |   |   |
|        |  |   |        |  |          | IRF9358<br>$R_{DS(on)} = 16 \text{ m}\Omega; \text{双}$            |   |   |
|        |  |   |        | IRFHM9331 <sup>2)</sup><br>$R_{DS(on)} = 15 \text{ m}\Omega$       |          | IRF9332<br>$R_{DS(on)} = 17.5 \text{ m}\Omega$                    |   |   |
|        |  |   |        |  |          | IRF9392TRPBF<br>$R_{DS(on)} = 17.5 \text{ m}\Omega$               |   |   |
|        |  |   |        | BSZ180P03NS3 G<br>$R_{DS(on)} = 18.0 \text{ m}\Omega$              |          | IRF9333<br>$R_{DS(on)} = 19.4 \text{ m}\Omega$                    |   |   |
|        |  |   |        | BSZ180P03NS3E G<br>$R_{DS(on)} = 18.0 \text{ m}\Omega; \text{ESD}$ |          | BSO200P03S H<br>$R_{DS(on)} = 20.0 \text{ m}\Omega$               |   |   |
|        |  | IRLML9301TRPBF<br>$R_{DS(on)} = 64 \text{ m}\Omega$               |        |  |          | BSO303SP H<br>$R_{DS(on)} = 21.0 \text{ m}\Omega$                 | IRFH9301TRPBF<br>$R_{DS(on)} = 37.0 \text{ m}\Omega$            |   |
|        |  | IRLML9303TRPBF<br>$R_{DS(on)} = 165 \text{ m}\Omega$              |        |  |          | BSO303P H<br>$R_{DS(on)} = 21.0 \text{ m}\Omega; \text{双}$        |   |   |
|        |  |   |        |  |          | IRF9362<br>$R_{DS(on)} = 21 \text{ m}\Omega; \text{双}$            | IRFH9351TRPBF<br>$R_{DS(on)} = 170.0 \text{ m}\Omega; \text{双}$ | IRFTS9342***<br>$R_{DS(on)} = 32 \text{ m}\Omega$ |
|        |  |   |        |  |          | IRF9335<br>$R_{DS(on)} = 59 \text{ m}\Omega$                      |   |   |

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1) 5-脚

2) 2.5 V<sub>GS</sub> 驱动能力

\*产品符合汽车AEC Q101

\*\* $R_{DS(on)}$  于 4.5 V 规定

\*\*\*  $R_{DS(on)}$  max @ V<sub>GS</sub>=4.5 V



## 功率 P-沟道MOSFET



| 电压 [V]     | TO-252 (DPAK)                                     | TO-263 (D <sup>2</sup> PAK)                      | TO-220                               | PQFN 3.3 x 3.3 | SuperSO8 | SO-8   |
|------------|---|--|--------------------------------------|----------------|----------|--|
| P-沟道MOSFET | IPD380P06NM<br>$R_{DS(on)} = 38 \text{ m}\Omega$  | IPB110P06LM<br>$R_{DS(on)} = 11 \text{ m}\Omega$ | SPP80P06P H*                         |                |          |  |
|            | IPD650P06NM<br>$R_{DS(on)} = 65 \text{ m}\Omega$  | SPB80P06P G*                                     | $R_{DS(on)} = 23.0 \text{ m}\Omega$  |                |          |  |
|            | SPD30P06P G*                                      |  |                                      |                |          |  |
|            | $R_{DS(on)} = 75.0 \text{ m}\Omega$               |  |                                      |                |          |  |
|            | IPD900P06NM<br>$R_{DS(on)} = 90 \text{ m}\Omega$  |  |                                      |                |          |  |
|            | SPD18P06P G*                                      | SPB18P06P G*                                     | SPP18P06P H*                         |                |          | BSO613SPV G*<br>$R_{DS(on)} = 130.0 \text{ m}\Omega$ |
|            | $R_{DS(on)} = 130.0 \text{ m}\Omega$              | $R_{DS(on)} = 130.0 \text{ m}\Omega$             | $R_{DS(on)} = 130.0 \text{ m}\Omega$ |                |          |  |
|            | SPD09P06PL G*                                     |  |                                      |                |          |  |
|            | $R_{DS(on)} = 250.0 \text{ m}\Omega$              |  |                                      |                |          |  |
|            | IPD25DP06LM<br>$R_{DS(on)} = 250 \text{ m}\Omega$ |  |                                      |                |          |  |
|            | IPD25DP06NM<br>$R_{DS(on)} = 250 \text{ m}\Omega$ |  |                                      |                |          |  |
|            | SPD08P06P G*                                      | SPB08P06P G*                                     | SPP08P06P H*                         |                |          |  |
|            | $R_{DS(on)} = 300.0 \text{ m}\Omega$              | $R_{DS(on)} = 300.0 \text{ m}\Omega$             | $R_{DS(on)} = 300.0 \text{ m}\Omega$ |                |          |  |
| -100       | IPD40DP06NM<br>$R_{DS(on)} = 400 \text{ m}\Omega$ |  |                                      |                |          |  |
|            | SPD15P10PL G*                                     |  | SPP15P10PL H*                        |                |          |  |
|            | $R_{DS(on)} = 200.0 \text{ m}\Omega$              |  | $R_{DS(on)} = 200.0 \text{ m}\Omega$ |                |          |  |
|            | SPD15P10P G*                                      |  | SPP15P10P H*                         |                |          |  |
|            | $R_{DS(on)} = 240.0 \text{ m}\Omega$              |  | $R_{DS(on)} = 240.0 \text{ m}\Omega$ |                |          |  |
| 互补         | SPD04P10PL G*                                     |  |                                      |                |          |  |
|            | $R_{DS(on)} = 850.0 \text{ m}\Omega$              |  |                                      |                |          |  |
|            | SPD04P10P G*                                      |  |                                      |                |          |  |
|            | $R_{DS(on)} = 1000.0 \text{ m}\Omega$             |  |                                      |                |          |  |

## 互补功率MOSFET



| 电压 [V]    | TO-252 (DPAK) | TO-263 (D <sup>2</sup> PAK) | TO-220 | PQFN 3.3 x 3.3  | SuperSO8 | SO-8   |
|-----------|---------------|-----------------------------|--------|---|----------|--|
| 互补        | >50 mΩ        |                             |        | BSZ15DC02KD H**<br>N: 55 mΩ, 5.1 A<br>P: 150 mΩ, -3.2 A |          |  |
|           |               |                             |        | BSZ215C H**<br>N: 55 mΩ, 5.1 A<br>P: 150 mΩ, -3.2 A     |          |  |
| 60 年-60 月 | 11-30 Ω       |                             |        |   |          | BSO612CV G*<br>N: 0.12 Ω, 3.0 A<br>P: 0.30 Ω, -2.0 A |
|           |               |                             |        |   |          | BSO615C G*<br>N: 0.11 Ω, 3.1 A<br>P: 0.30 Ω, -2.0 A  |

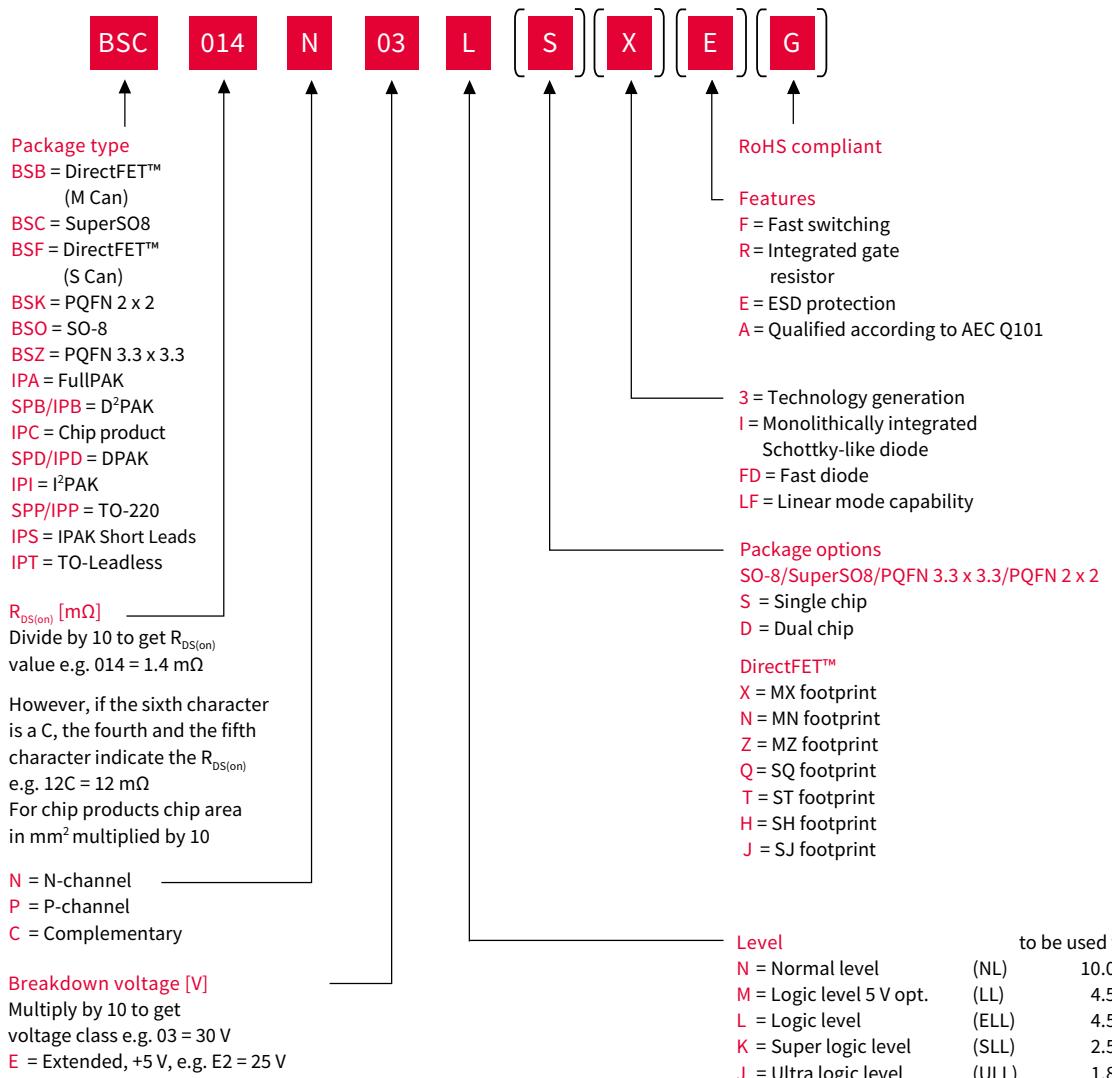
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\*产品符合汽车AEC Q101

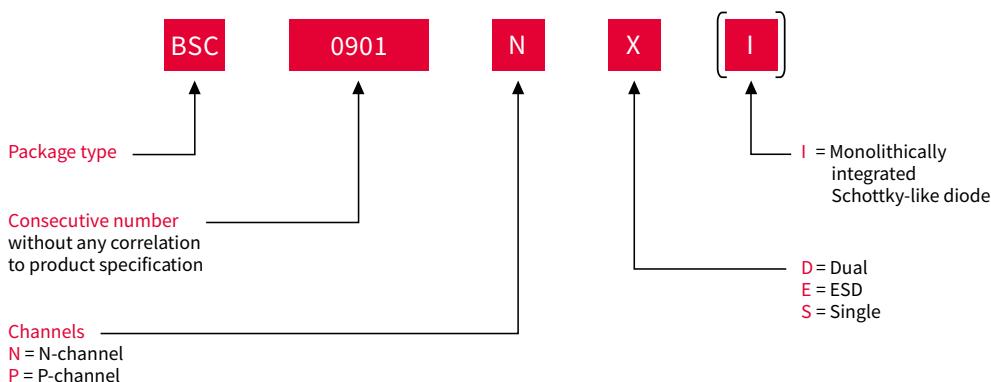
\*\* $R_{DS(on)}$  于 4.5 V 规定

# 命名法

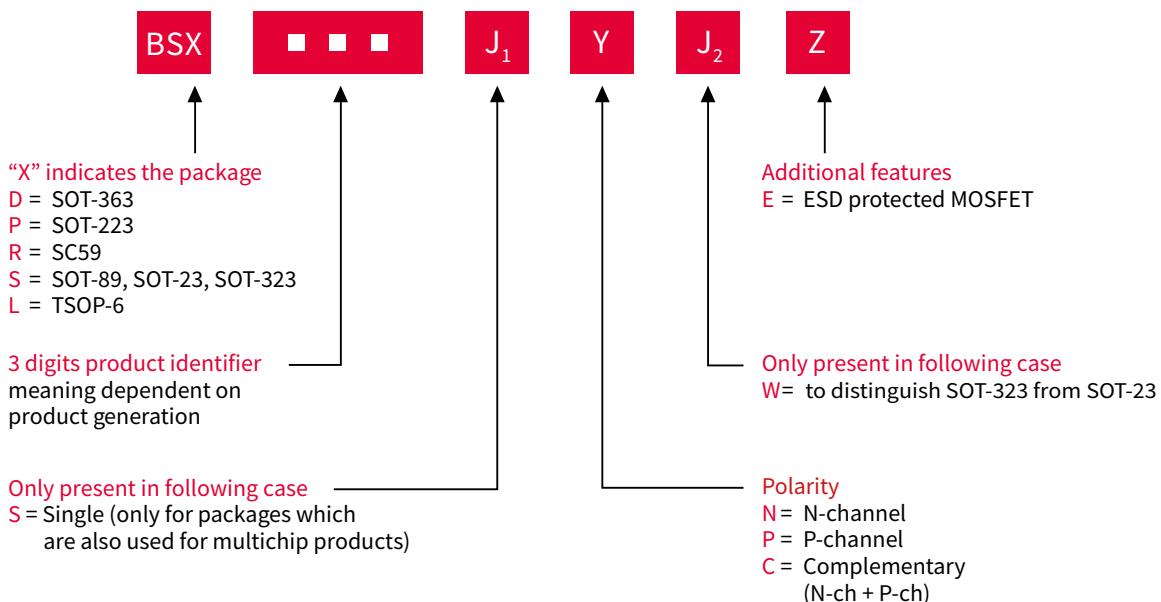
## OptiMOS™



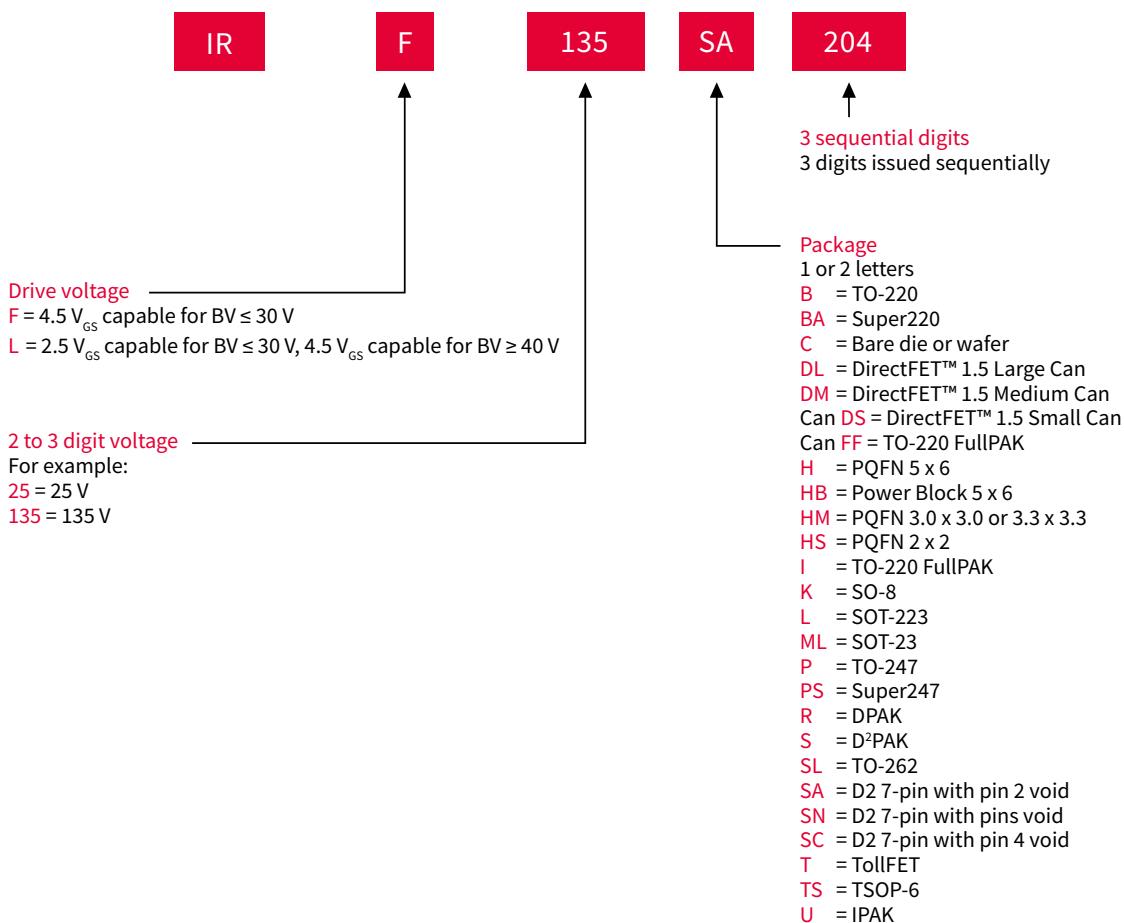
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## 小信号



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# Infineon support for low voltage MOSFETs

## Useful links and helpful information

### Further information, data sheets and documents

[www.infineon.com/powermosfet-12V-300V](http://www.infineon.com/powermosfet-12V-300V)

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[www.infineon.com/complementary](http://www.infineon.com/complementary)

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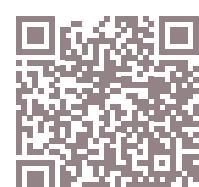
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[www.infineon.com/to-leadless-evaluationboard](http://www.infineon.com/to-leadless-evaluationboard)

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Published by  
Infineon Technologies Austria AG  
9500 Villach, Austria

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Order number: B131-I0829-V1-5D00-AP-EC-P  
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