



PDFN8*8 Package Type

1、封装特点：

尺寸：通常为 8mm×8mm 的方形封装，高度较低，适合紧凑型电路设计。

引脚布局：一般包含多个引脚，常见的有 4 引脚或 8 引脚设计，支持源极、漏极、栅极等信号连接，部分封装支持开尔文源极连接，可降低寄生电感，提升开关性能。

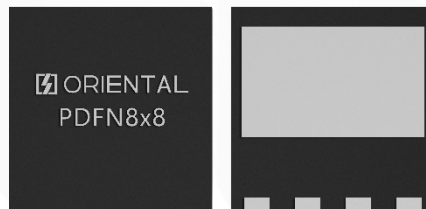
散热性能：通过底部散热铜片或金属基板实现散热，散热面积较大，能有效降低器件结温，适用于高频、高功率应用场景。

1. Package Features

Dimensions: It is usually an 8mm×8mm square package with a low profile, making it suitable for compact circuit designs.

Pin Layout: It generally includes multiple pins, with common 4-pin or 8-pin configurations. It supports signal connections such as source, drain and gate. Some packages support Kelvin source connection, which can reduce parasitic inductance and improve switching performance.

Heat Dissipation Performance: Heat dissipation is achieved via a bottom heat-dissipating copper plate or metal substrate. The large heat dissipation area can effectively reduce the device junction temperature, making it suitable for high-frequency and high-power application scenarios.



2、应用场景：

电源管理：如开关电源、充电器、适配器等，可实现高效率、高功率密度的电源转换。

新能源领域：包括电动汽车充电、光伏逆变器、储能系统等，满足高压、大电流需求。

工业控制：电机驱动、变频器等设备，对器件的开关速度和可靠性要求较高。

2. Application Scenarios

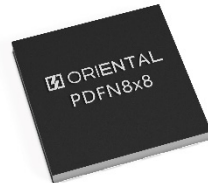
Power Management: It can be applied to switching power supplies, chargers, adapters, etc., enabling high-efficiency and high-power-density power conversion.

New Energy Sector: It covers electric vehicle charging, photovoltaic inverters, energy storage systems, etc., meeting the requirements for high voltage and large current.

Industrial Control: It is suitable for equipment such as motor drives and frequency converters,



which have high requirements for the switching speed and reliability of devices.



3、优势：

小型化：相比传统插件封装（如 TO-247），体积大幅缩小，可节省 PCB 空间，便于实现高密度电路设计。

低寄生参数：表面贴装方式减少了引线电感和电容，有利于高频开关应用，降低开关损耗。

自动化生产：适合 SMT（表面贴装技术）工艺，生产效率高，成本较低。

3. Advantages

- **Miniaturization:** Compared with traditional through-hole packages (e.g., TO-247), it has a significantly smaller size, which saves PCB space and facilitates high-density circuit design.
- **Low Parasitic Parameters:** The surface-mount method reduces lead inductance and capacitance, which is beneficial for high-frequency switching applications and lowers switching losses.
- **Automated Production:** It is compatible with the SMT (Surface Mount Technology) process, featuring high production efficiency and low costs.

