

## 产品简介

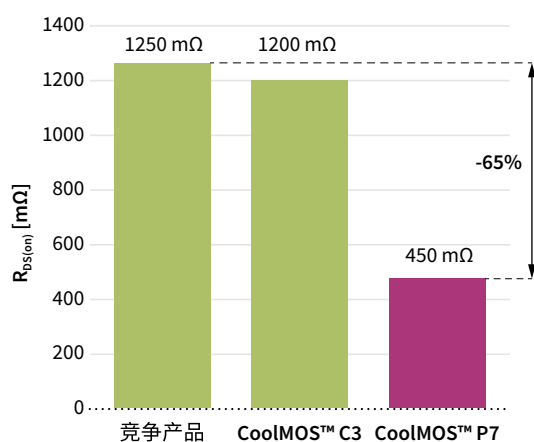
# 950 V CoolMOS™ P7 SJ MOSFET

## PFC和反激拓扑结构的理想选择

最新的950 V CoolMOS™ P7技术专注于低功率SMPS市场,旨在满足高压MOSFET领域不断增长的消费者需求。这款全新的P7系列产品适用于各种应用,从照明、智能电表、手机充电器、笔记本适配器到AUX电源和工业SMPS。新型950 V CoolMOS™ P7系列比其前代产品900 V CoolMOS™ C3提供高50 V的阻断电压,在效率、热性能和易用性方面表现出色。

与所有其他P7系列产品一样,950 V CoolMOS™ P7系列也配有集成的齐纳二极管ESD保护。该集成二极管显著提高了ESD稳健性,从而降低了与ESD相关的产量损失,并达到了极高的易用性水平。CoolMOS™ P7采用一流的3 V  $V_{GS(th)}$ 和仅±0.5 V的偏差,使得它很容易驱动和实现设计导入。

凭借20多年的超级结技术经验,英飞凌推出一流DPAK导通电阻( $R_{DS(on)}$ )的950 V CoolMOS™ P7。此SMD器件的 $R_{DS(on)}$ 为450 mΩ - 与最接近的竞争产品相比, $R_{DS(on)}$ 降低了60%以上。如此低的 $R_{DS(on)}$ 值可实现更高密度的设计,同时降低BOM和装配成本。



### 一流的DPAK $R_{DS(on)}$

#### 客户优势:

- > 可以从引线封装转为SMD封装
- > 高功率密度
- > 降低BOM成本
- > 生产成本更低

### 主要特征

- > 一流的FOM  $R_{DS(on)}$   $E_{oss}$ ; 降低的 $Q_g$ 、 $C_{iss}$ 和 $C_{oss}$
- > 一流的450 mΩ DPAK  $R_{DS(on)}$
- > 一流的3 V  $V_{GS(th)}$ 和最小的±0.5 V  $V_{GS(th)}$ 变化
- > 集成齐纳二极管ESD达到2级(HBM)保护
- > 一流的品质和可靠性

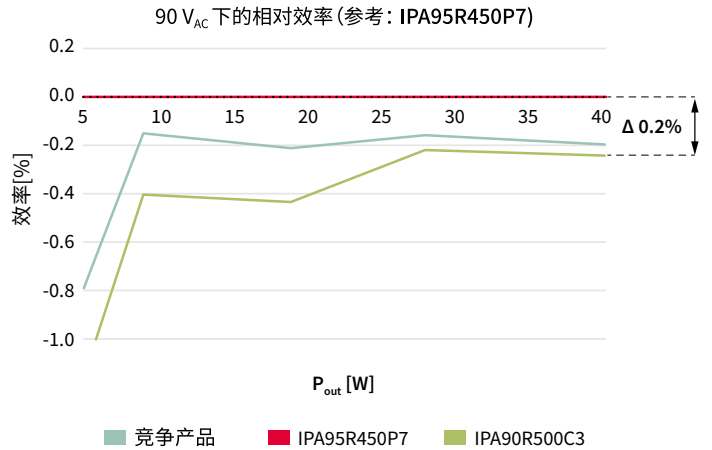
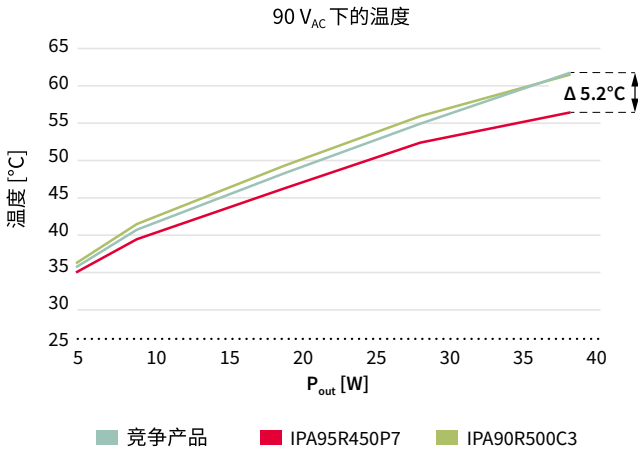
### 主要优势

- > 与CoolMOS™ C3相比,效率可提高1%, MOSFET温度可降低2°C至10°C
- > 实现更高功率密度设计、物料成本节省和更低的装配成本
- > 易于驱动和设计导入
- > 通过减少与ESD相关的故障来提高产量
- > 减少生产问题,减少退货

# 950 V CoolMOS™ P7 SJ MOSFET

## PFC和反激拓扑结构的理想之选

与竞争产品相比, 950 V CoolMOS™ P7具有同类最佳的效率和热性能。在90 V<sub>AC</sub>下的 40 W适配器参考设计中即插即用, 采用无缓冲器概念, 与同类竞争技术相比, 具有高达0.2%的出色效率增益, 并可将MOSFET温度降低高达5.2°C。



### 产品系列\*

R <sub>DS(on)</sub> [mΩ]	TO-220 FP	IPAK LL	DPAK	SOT-223	ESD 保护级别	
					HBM	CDM
3700		IPU95R3K7P7		IPN95R3K7P7	1C (> 1 kv)	C3级 (> 1 kv)
2000		IPU95R2K0P7	IPD95R2K0P7	IPN95R2K0P7	2 (> 2 kv)	
1200	IPA95R1K2P7	IPU95R1K2P7	IPD95R1K2P7	IPN95R1K2P7		
750	IPA95R750P7	IPU95R750P7	IPD95R750P7			
450	IPA95R450P7	IPU95R450P7	IPD95R450P7			

\* 针对PFC和反激拓扑结构的优化设计

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