



产品简介

采用SuperSO8封装的OptiMOS™ 同类最佳功率MOSFET

通过最低的导通电阻在更高的工作温度下提高功率密度和效率

采用SuperSO8封装的英飞凌OptiMOS™ 3和5同类最佳(BiC)功率MOSFET可提供最低的导通电阻($R_{DS(on)}$),从而以良好的性价比降低损耗。采用SuperSO8封装的新型BiC MOSFET扩展了OptiMOS™ 3和5产品组合,除了提高稳健性以外,还可实现更高的功率密度,满足更低的系统成本和更高的性能需求。较低的反向恢复电荷(Q_{rr})通过显著降低电压过冲来提高系统可靠性,从而最大限度地减少对缓冲电路的需求,降低工程成本和工作量。

175°C额定值有助于在相同的工作结温下实现更高的功率,更高的工作结温或更长的寿命。此外,随着温度额定值的增加,安全操作区域(SOA)的性能提高了20%。

采用SuperSO8封装的新型BiC MOSFET非常适用于电信,服务器,三相逆变器以及D类音频应用。例如,在600 W电信标准砖式变换器中,新型BiC OptiMOS™ 5 功率MOSFET 80 V在满负载时产生的过冲电压降低了11V,从而减少一半的部件。

关键性能

- › 最低 $R_{DS(on)}$ 可实现最大功率密度和效率
- › 更高的操作温度额定值(达到175°C)以增加可靠性
- › 低 R_{thJC} 有以实现出色的热性能
- › 较低的反向恢复电荷(Q_{rr})

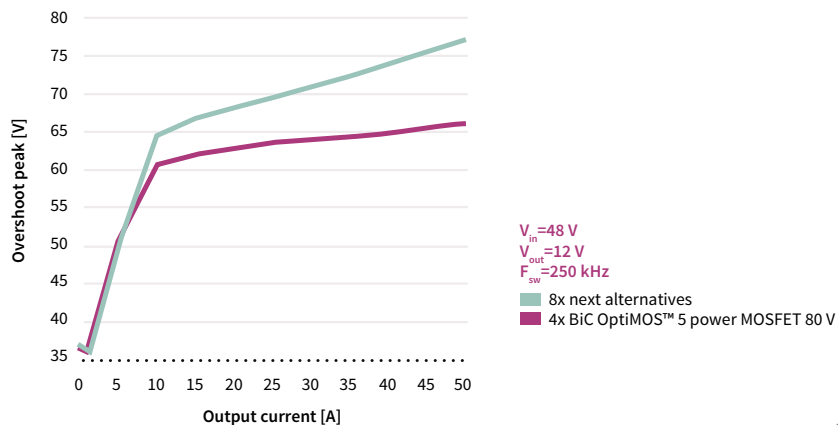
主要优点

- › 降低满负载温度
- › 减少并联
- › 降低过冲
- › 增加系统功率密度
- › 尺寸小
- › 降低系统成本
- › 降低工程成本和工作量

目标应用

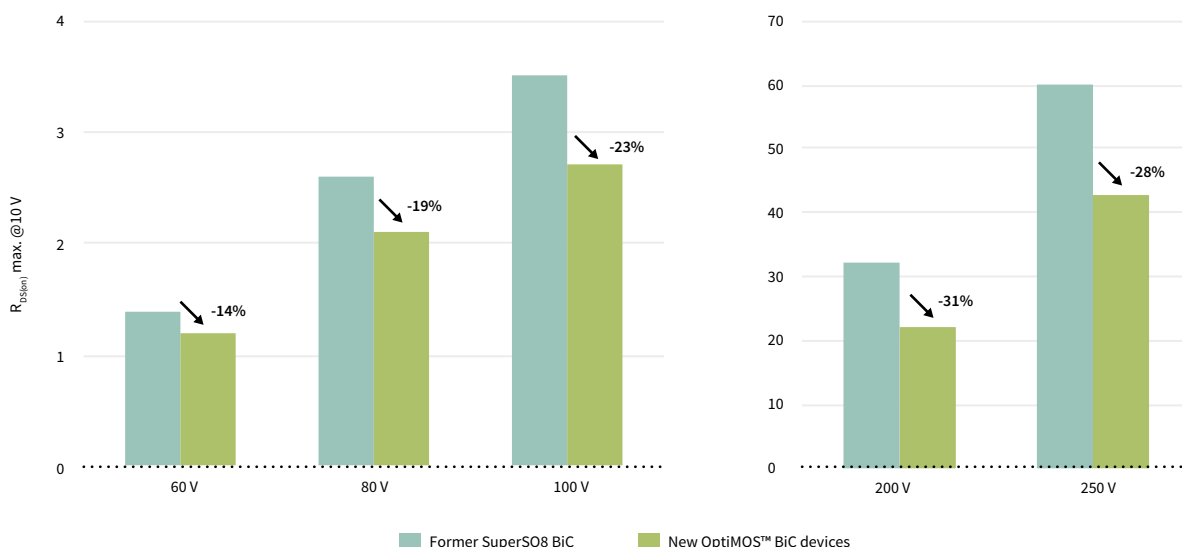
- › 服务器
- › 电信
- › 电动工具
- › 低电压驱动
- › D类音频应用

降低600W电信标准砖式变换器满负载时的过冲



采用SuperSO8封装的OptiMOS™ 同类最佳功率MOSFET

$R_{DS(on)}$ 降低了31%，提高系统功率密度和效率并具有良好的性价比



产品组合 - 采用SuperSO8封装的新型BiC OptiMOS™ 60-250 V

零件编号	$R_{DS(on)}$ max. @ $V_{GS} = 10\text{ V}$ [mΩ]	电压 [V]
BSC012N06NS	1.2	60 V
BSC021N08NS5	2.1	80 V
BSC027N10NS5	2.7	100 V
BSC220N20NSFD	22.0	200 V
BSC430N25NSFD	43.0	250 V

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