



Product Brief

OptiMOS™ 5 80V and 100V

Industry Leading Technology for Telecom Applications

OptiMOS™ 5 80V and 100V, Infineon's latest generation of Power MOSFETs, are especially designed for Synchronous Rectification for Telecom and Server Power Supplies. In addition, these devices can also be utilized in other industrial applications such as Solar, Low Voltage Drives and Adapter.

Within seven different packages, the new OptiMOS™ 5 80V and 100V MOSFETs offer the industry's lowest $R_{DS(on)}$. One of the biggest contributors to this industry leading FOM is the low on-state resistance with a value as low as 2.7mΩ in the SuperSO8 package, providing the highest level of power density and efficiency.

OptiMOS™ 5 100V has a lower $R_{DS(on)}$ of up to 22% when compared to other similar devices. Additionally, compared to the previous generation, OptiMOS™ 5 80V has an $R_{DS(on)}$ reduction of up to 43%.

Key Features

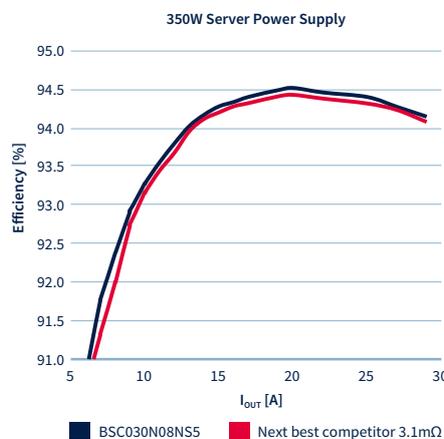
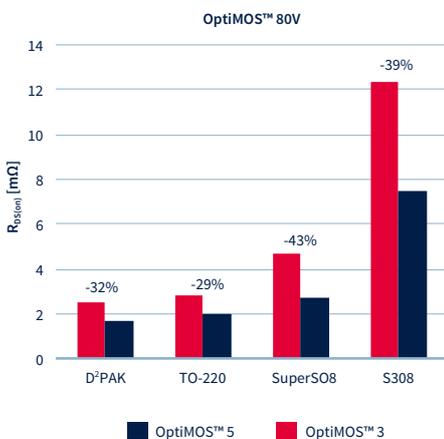
- Optimized for Synchronous Rectification
- Ideal for high switching frequency
- Output capacitance reduction of up to 44%
- $R_{DS(on)}$ reduction of up to 43% from previous generation

Key Benefits

- Highest system efficiency
- Reduced switching and conduction losses
- Less paralleling required
- Increased power density
- Low voltage overshoot

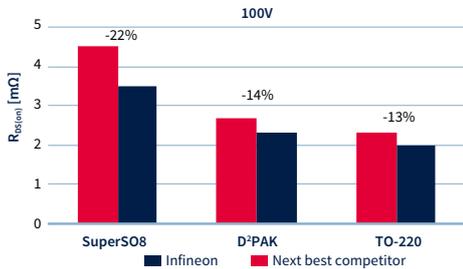
Applications

- Telecom
- Server
- Solar
- Low Voltage Drives
- Adapter

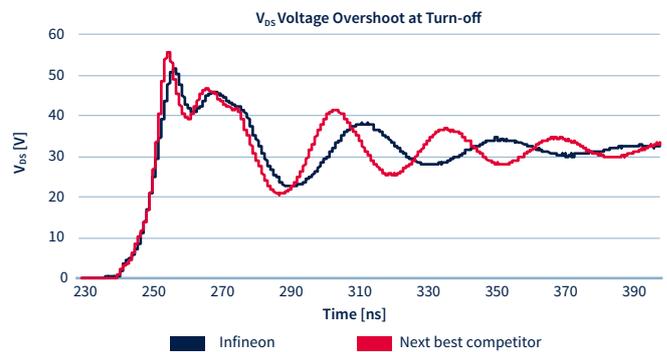
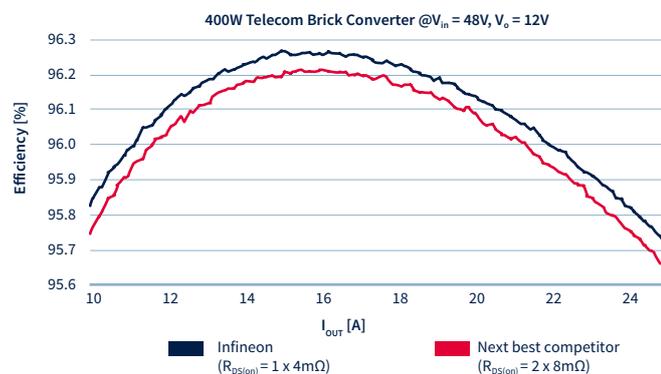


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In the SuperSO8 package, OptiMOS™ 5 100V allows a two by one replacement of competitor parts enabling an even higher efficiency over the whole load range. This two by one replacement is without penalty in regard to thermal behavior. OptiMOS™ 5 100V has a 5V lower voltage overshoot compared to the next best competitor. In addition to isolated DC/DC as a primary application, the new OptiMOS™ 5 100V can also be utilized in Telecom application blocks including Or-ing, Hotswap and Battery Protection.



OptiMOS™ 5 80V and 100V Product Portfolio

R _{DS(on)} max @ V _{GS} = 10V		SuperSO8	S308	TO-Leadless	TO-220	TO-220 FullPAK	D²PAK	D²PAK 7pin
80V	1-4mΩ	BSC026N08NS5		IPT012N08N5	IPP020N08N5		IPB017N08N5	IPB015N08N5
		BSC030N08NS5			IPP023N08N5		IPB020N08N5	
		BSC037N08NS5			IPP027N08N5		IPB024N08N5	
		BSC040N08NS5			IPP034N08N5		IPB031N08N5	
	4-8mΩ	BSC052N08NS5	BSZ075N08NS5		IPP052N08N5		IPB049N08N5	
		BSC061N08NS5						
	8-12mΩ	BSC072N08NS5						
		BSC117N08NS5	BSZ084N08NS5 BSZ110N08NS5					
100V	1-4mΩ	BSC035N10NS5		IPT015N10N5	IPP023N10N5 IPP030N10N5		IPB020N10N5 IPB027N10N5	IPB017N10N5
		BSC040N10NS5						
	4-8mΩ	BSC070N10NS5						
		BSC098N10NS5	BSZ097N10NS5		IPP083N10N5	IPA083N10N5		

R_{DS(on)} is also specified @ V_{GS} = 6V

Published by
Infineon Technologies Austria AG
9500 Villach, Austria

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Order Number: B152-I0065-V1-7600-EU-EC-P
Date: 02 / 2015

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