

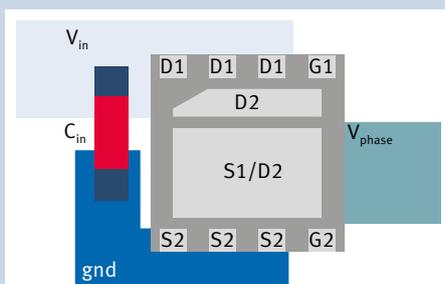
## Power stage 3x3

### Halfbridge handles 12.5 A in 9 mm<sup>2</sup>

Dual FET power stages in a single leadless SMD package integrate the low side and high side MOSFET of a synchronous DC/DC converter into a 3x3mm<sup>2</sup> package outline. The new package enables customer to shrink their design by replacing two separate discrete packages. This offers the designer a shrink potential up to 85%. Both, the small package outline and the interconnection of the two MOSFETs minimize the loop inductance and boosts the efficiency. With the new OptiMOS™ 30V technology the power stage 3x3 achieves a peak efficiency of 93.5 % and can handle an application current of up to 12.5 A.

### Easy and compact layout

- Improved power loop (connection to  $C_{in}$ )
- Different die pad size for low-side and high-side for optimized power dissipation
- Large area for gnd connection



Example

### Features

- Best in class on-state resistance
- Asymmetric halfbridge in a small package outline 3.0 x 3.0 mm<sup>2</sup>
- Low profile (0.8 mm)
- Internally connected low-side and high-side (lowest loop inductance)
- Optimized thermal design with a larger exposed die-pad for the low-side
- Optimized pin-out
- Multiple sources available
- RoHS compliant and halogen free

### Benefits

- Compact and simplified layout for a DC/DC converter
- Optimized layout with lowest loop inductivity
- Highest efficiency
- Environmentally friendly
- Partcount reduction (compared to 2 single devices)

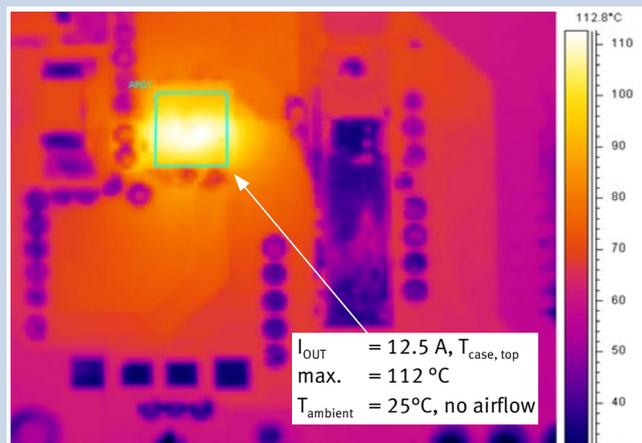
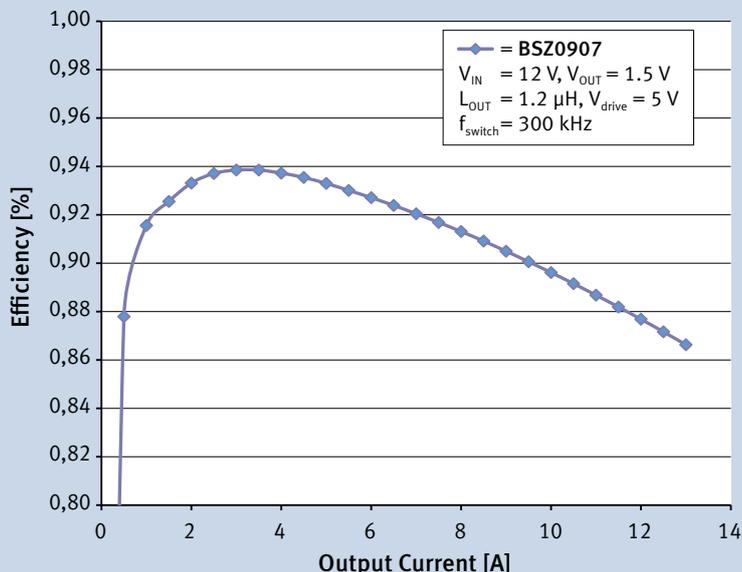
### Applications

- Notebook peripheral
- Netbook core
- Motherboard peripheral
- Server peripheral
- Telecom

# Power stage 3x3

## Halfbridge handles 12.5 A in 9 mm<sup>2</sup>

With the BSZ0907ND the power stage achieves 93.5 % peak efficiency for 300 kHz switching frequency. The max application current is 12.5A with a maximum package temperature of 112°C.



### Product Portfolio power stage 3x3

	V <sub>DSS</sub> [V]	Q1			Q2		
		I <sub>D</sub> (T <sub>c</sub> = 70°C) [A]	R <sub>DS(on)</sub> max. @ 4.5 V [mOhm]	R <sub>DS(on)</sub> max. @ 10 V [mOhm]	I <sub>D</sub> (T <sub>c</sub> = 70°C) [A]	R <sub>DS(on)</sub> max. @ 4.5 V [mOhm]	R <sub>DS(on)</sub> max. @ 10 V [mOhm]
BSZ0907ND <sup>1)</sup>	30	25	13,5	9,5	30	10,0	7,2
BSZ0908ND <sup>1)</sup>	30	15	32,0	19,0	30	13,0	9,0

<sup>1)</sup> Available Q4/2011

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