

OptiMOS™ 5 40V in S308 Package

IFX's latest generation of Automotive Power MOSFETs

Infineon Automotive

May 2015



OptiMOS™ 5 40V in S308 Package

Benchmark for Compact Automotive Power MOSFET Design



S308 Package Features:

- Low Package Resistance for lowest R_{DSon}
- High Current Capability - up to 40A
- Minimized Footprint Area and Height
- Reduced Package Inductances & Package Parasitics
- Improved Electro Migration / Solder Contact Area



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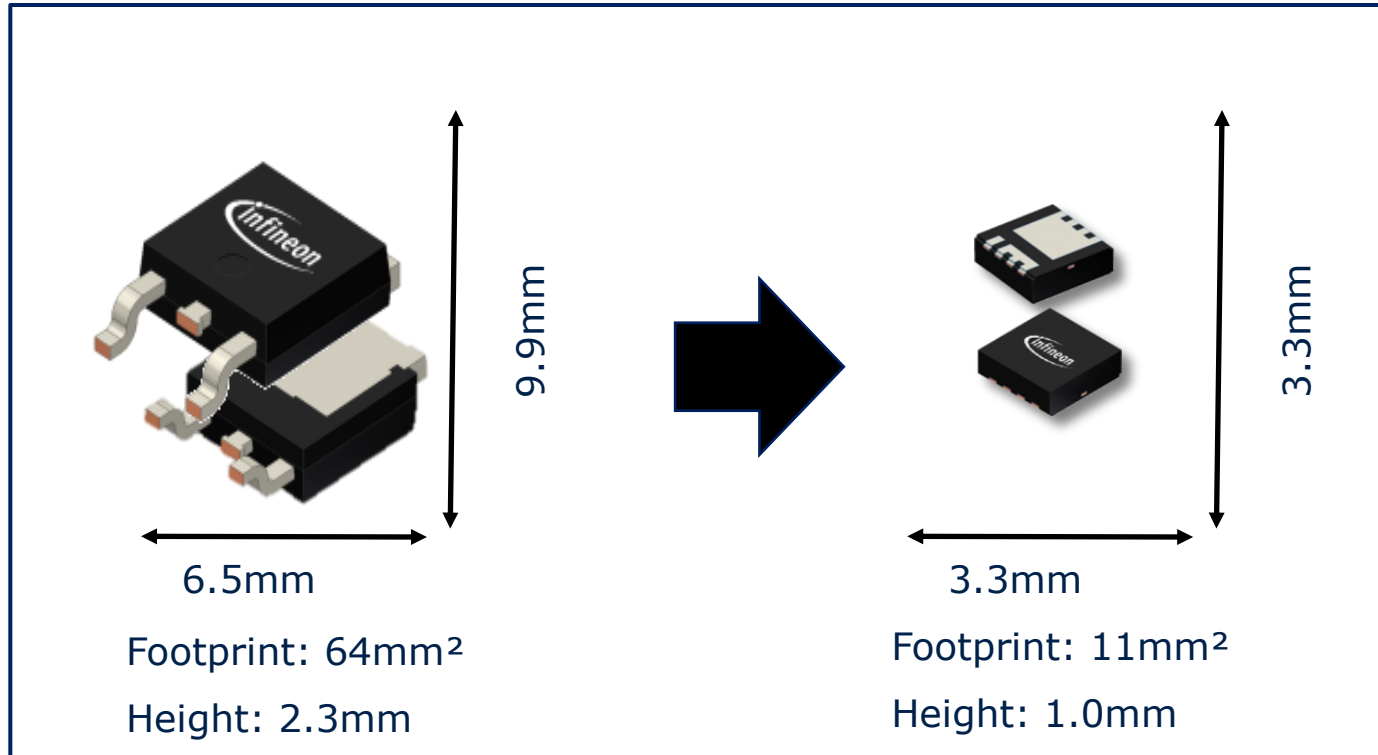
OptiMOS 5 40V Best in Class: IPZ40N04S5L-2R8

- $V_{BRDSS} = 40V$
- $R_{DSon (max)} = 2.8m\Omega$
- $I_D = 40A$
- $R_{thJC} = 2.1K/W$
- Package Footprint Area = 11 mm²
- AOI capability for automated optical inspection
- 100% lead-free
- AEC-Q101 qualified
- JEDEC registered



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~80%
Footprint
Reduction

~50%
Height
Reduction



~90%
Volume
Reduction

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| Product Name | max R_{DSon} [mOhm] | I_D [A] | LL/NL | R_{thJC} [K/W] | Status |
|------------------------|--------------------------|--------------|-------|---------------------|----------|
| IPZ40N04S5L-2R8 | 2.8 | 40 | LL | 2.1 | Released |
| IPZ40N04S5-3R1 | 3.1 | 40 | NL | 2.1 | Released |
| IPZ40N04S5L-4R8 | 4.8 | 40 | LL | 3.1 | Released |
| IPZ40N04S5-5R4 | 5.4 | 40 | NL | 3.1 | Released |
| IPZ40N04S5L-7R4 | 7.4 | 40 | LL | 4.4 | Released |
| IPZ40N04S5-8R4 | 8.4 | 40 | NL | 4.4 | Released |



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