Product Brief

TOLL – Infineon's Latest PowerMOS Package

Optimized for High Current Automotive Electronics

The new TOLL package is optimized for high current automotive applications, such as Power Steering, Brushless DC-Drives, Battery Management, Battery Safety Switch. TOLL is a perfect solution for high power applications, where highest efficiency, outstanding EMI behavior and best thermal behavior in combination with space reduction are required.

A 60% smaller package size enables a very compact design. Compared to D²PAK 7pin, the new TOLL shows a substantial reduction in footprint of 30%. The 50% reduced height offers a significant advantage in applications where compact design is required. This TOLL product is AEC qualified.

Moreover low package parasitic inductances result in an improved EMI behavior and a 50% bigger solder contact area avoids electro-migration at high current levels, which results in improved reliability.

Key Features

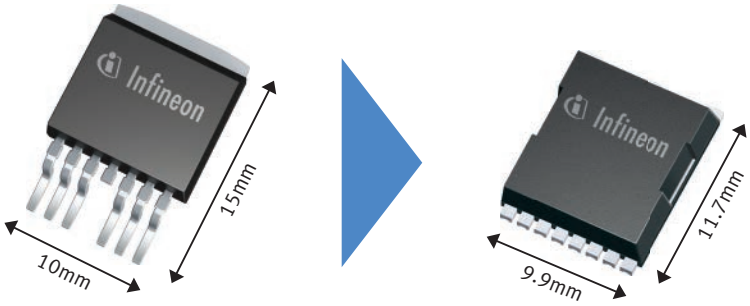
- Industry's Lowest $R_{DS(on)}$
- Current Capability (300A)
- Very low Package Parasitics & Package Inductances

Key Benefits

- Reduced Paralleling & Cooling
- Highest System Reliability
- Reduced System Costs
- Compact Design

Applications

- Power Steering
- Brushless DC-Drives
- Battery Management
- Battery Safety Switch



Footprint: 150mm²
Hight: 4.4mm

Footprint: 115mm²
Hight: 2.3mm

30% Footprint Reduction

50% Height Reduction

60% Space Reduction

www.infineon.com/to-leadless

RoHS

AEC Qualified

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Optimized for High Current Automotive Electronics

TOLL is designed for high currents up to 300A. In combination with Infineon's latest OptiMOS™ automotive silicon technology, TOLL achieves lowest $R_{DS(on)}$ in the market. This enables reduction in the number of parallel MOSFETs in all high current applications and increases power density.

	TO-Leadless	D²PAK 7pin	D²PAK
			
Power Density	●●●●	●●●	●●
Current Capability	●●●●	●●●	●●
Thermal Performance	●●●	●●	●
Height	●●●	●	●
Reliability	●●●●	●●●	●●●

Moreover low package parasitic inductances result in an improved EMI behavior and a 50% bigger solder contact area avoids electro-migration at high current levels, which results in improved reliability.

Product Summary

Package	Type	V_{DS} [V]	$R_{DS(on)}$ max. [mΩ]	Ordering Code
TOLL	IPLU300N04S4-R7	40	0.76	SP001097228

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