

Product brief

sTOLL – new 7x8 mm² power MOS package

Perfect choice for future automotive applications up to 200 A

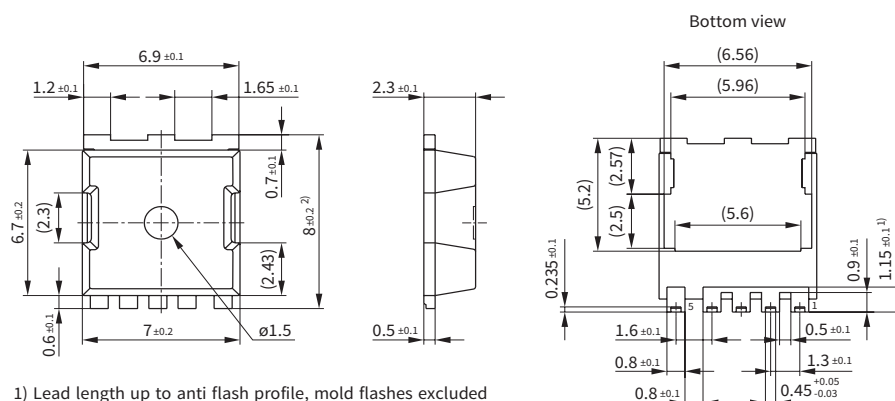
Infineon introduces sTOLL as its latest high power leadless package in 7x8 mm² with OptiMOS-5™ 40 V for future automotive applications (JEDEC name is MO-319 and IEC name is HSOF-5).

sTOLL offers high current capability of 200 A, more than standard D²PAK (180A), at a footprint of 56 mm² which is even smaller than DPAK (65 mm²). In combination with Infineon's leading OptiMOS-5™ 40 V power MOS technology, sTOLL offers best in class power density and power efficiency at Infineon's well known quality level for robust automotive packages.

With sTOLL 7x8 mm² as new package family Infineon challenges the traditional SMD packages like D²PAK (TO263) and DPAK (TO252) providing higher current capability in smaller form factor of 7x8 mm² without sacrificing thermal performance. Further sTOLL as leadless package minimizes stray inductances, package resistance and improves switching behavior over traditional packages DPAK/D²PAK significantly.

Infineon first sTOLL package family will be with OptiMOS-5™ 40 V technology for all future 12 V high current automotive applications, especially EPS, DC/DC and BLDC in CO₂ friendly vehicles. In a second step sTOLL package will be extended to higher voltage classes like 80 V and 100 V.

First product release in sTOLL is a 1.0 mΩ MOSFET device: IAUA200N04S5N010



- 1) Lead length up to anti flash profile, mold flashes excluded
- 2) Excluding burr

All dimensions are in units mm

The drawing is in compliance with ISO 128 and projection method 1 []

Key features

Advanced leadless package with leading MOS technology

- > JEDEC registered
- > 7x8 mm² small footprint
- > 200 A high current capability
- > Leadless package with low package resistance and minimized stray inductance
- > Leading technology OptiMOS-5™ 40 V
- > 1st released product 1.0 mΩ R_{DS(on)}
- > AOI capable package for Automated Optical Inspection

Key benefits

- > High power density
- > Reduced conduction losses
- > Optimized switching behavior
- > Reduced form factor compared to traditional DPAK/D²PAK
- > Industry package standard (JEDEC MO-319A)
- > Automotive robust package

Key applications

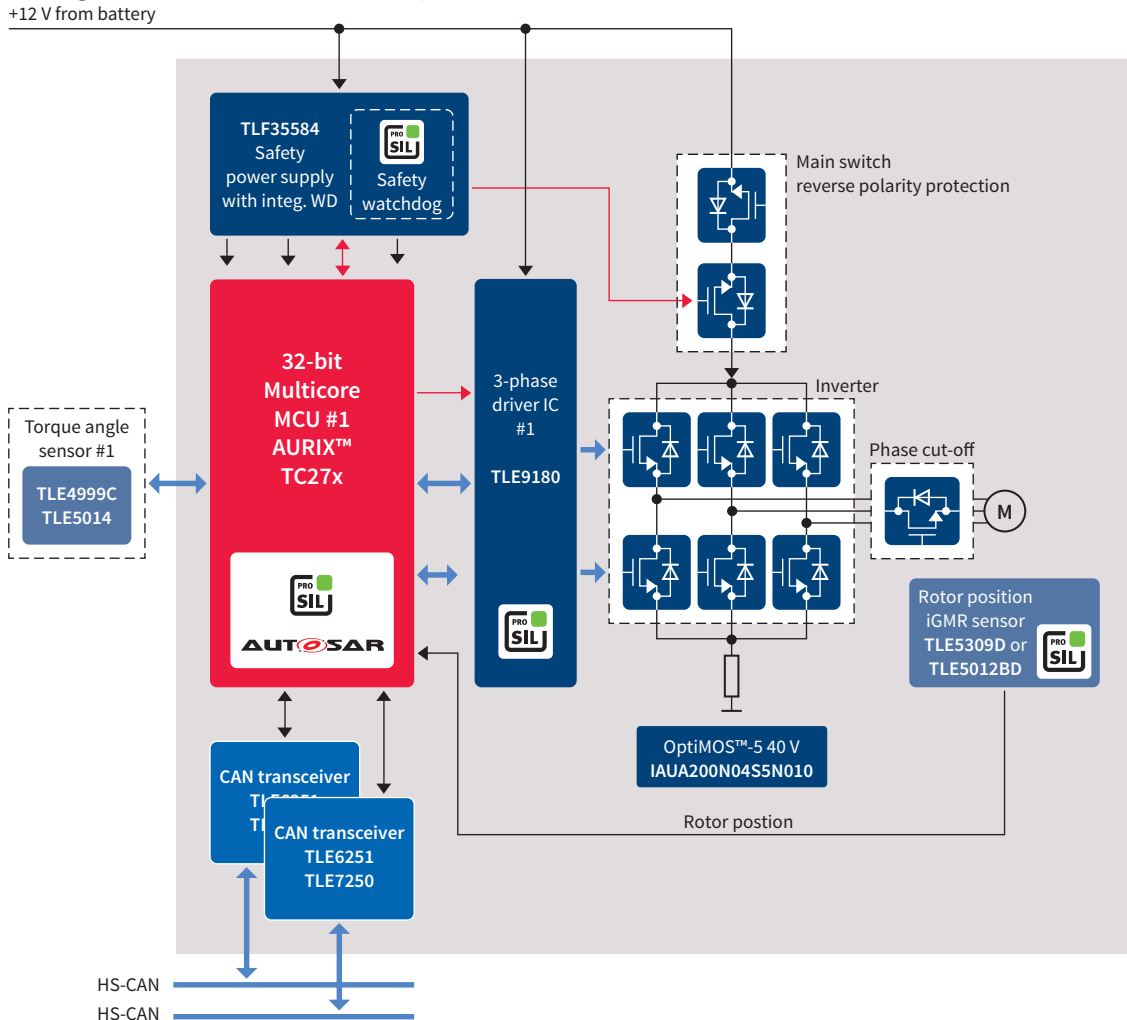
- > 12 V EPS
- > 12 V BLDC
- > 12–48 V DC/DC



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Application diagram: 40 V sTOLL in an EPS system



Product table

Product name	Voltage [V]	R _{DS(on)} (max) [mΩ]	I _D (max) [A]
IAUA200N04S5N010	40	1.0	200

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