

SSO10T TSC – top side cooling

TSC package for best cooling, high power density and optimized system costs

Infineon introduces its new top side cooling package SSO10T TSC in combination with its leading edge OptiMOS™ MOSFET technology.

SSO10T TSC offers excellent thermal performance by a direct top side cooling concept. No more heat transfer into or through the PCB.

It enables an easy and compact double side PCB design, it minimizes cooling effort and system costs for future automotive power designs.

The footprint of the SSO10T TSC has 5 mm x 7 mm and is based on the established industry standard SSO8 5 mm x 6 mm robust package.

SSO10T TSC can be used for a wide variation of tomorrows automotive applications like EPS, braking, power distribution, BLDC drives etc.

The SSO10T TSC package is JEDEC listed for open market use and wide 2nd source compatibility.

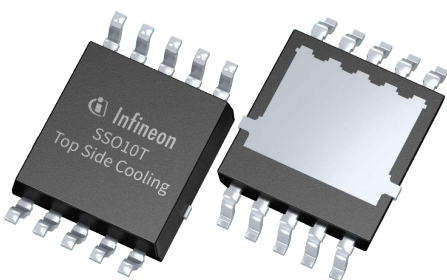
An initial portfolio offering starts with 4 products in OptiMOS™ 6 40V and is extended soon. $R_{DS(on)}$ max ranges from 1.73 mΩ down to 0.75 mΩ.

More information on SSO10T TSC:

<https://www.infineon.com/cms/en/product/promopages/SSO10T/>

Product table

| Product name | Voltage [V] | $R_{DS(on)(max)}$ [mΩ] | $I_{D(max)}$ [A] |
|----------------|-------------|------------------------|------------------|
| IAUCN04S6N007T | 40 | 0.75 | 120 |
| IAUCN04S6N009T | 40 | 0.90 | 120 |
| IAUCN04S6N013T | 40 | 1.30 | 120 |
| IAUCN04S6N017T | 40 | 1.73 | 120 |



www.infineon.com

Key features

- Direct cooling path to ECU housing
- Improves Z_{th} by -20% up to -50%
- Improves R_{th} by -20% up to -50%
- Enables double sided PCB design
- Provides higher application currents

Key benefits

- Best cooling performance
- Not heat transfer into PCB
- Very compact PCB design
- Reduces system area
- Reduces cooling efforts & costs (no more vias)
- Reduces system costs & design efforts
- High power density & efficiency production

Key applications

- Electric power steering
- Power disconnect switches
- Zone control units
- E-fuse box
- DC-DC
- ABS braking, e-booster
- All automotive applications
- BLDC drives in a wide variety



Electric power steering



BLDC motor



Automotive DC-DC



Power distribution



ABS



Zonal architecture



Relay box junction box