

# SQJ202EP AND SQJ200EP

## First AEC-Q101-Qualified 12 V and 20 V MOSFETs in Dual Asymmetric Package



**By co-packaging two MOSFETs in an asymmetric package — with a larger low-side MOSFET for lower on-resistance and smaller high-side MOSFET for faster switching.**

The 12 V SQJ202EP and 20 V SQJ200EP provide high-performance alternatives to standard dual devices, which restrict the optimum combination of MOSFETs for high-current, high-frequency buck designs.

Compared to using discrete components, the devices occupy less board space and can facilitate more compact PCB layouts.

The devices offer high-temperature operation to +175 °C to provide the ruggedness and reliability required for automotive applications. The SQJ202EP is well suited for applications with bus voltages  $\leq 8$  V and offers extremely low maximum on-resistance down to 3.3 m $\Omega$  at VGS = 10 V for the Channel 2 low-side MOSFET. For applications with higher bus voltages, the 20 V SQJ200EP features a slightly higher maximum on-resistance of 3.7 m $\Omega$ .



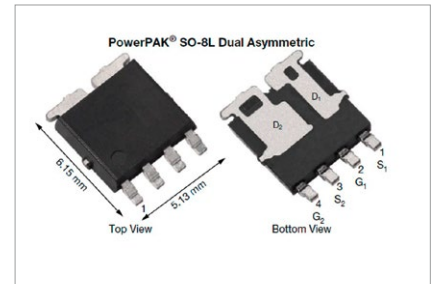
Dual Asymmetric Mosfet

### KEY FEATURES

- AEC-Q101-qualified for automotive applications
- Asymmetric dual MOSFETs are optimized for high-side and low-side synchronous buck applications
- Compact 5 mm by 6 mm PowerPAK® SO-8L dual asymmetric package occupies less board space and reduces parasitic inductance and power losses
- 12 V (SQJ202EP) and 20 V (SQJ200EP) drain-to-source voltages
- Extremely low-side maximum on-resistance down to 3.3 m $\Omega$  at VGS = 10 V
- High-temperature operation to +175 °C
- 100 % tested for gate resistance and avalanche
- RoHS-compliant and halogen-free

### APPLICATION EXAMPLES

Synchronous buck converters for automotive applications, including infotainment, telematics, navigation, and LED lighting.



Dual Asymmetric Mosfet package