



PowerPAK® SO-8L Dual Asymmetrical MOSFETs FOR AUTOMOTIVE DC/DC CONVERTERS

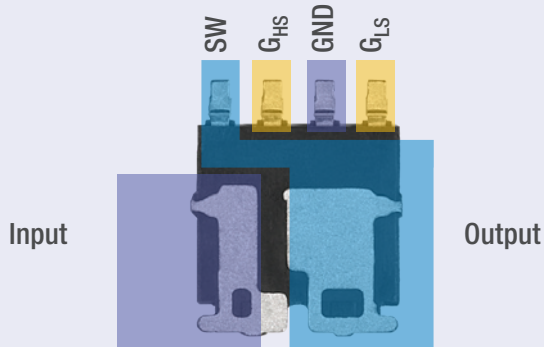
DESIGNED FOR SYNCHRONOUS BUCK WITH DUTY CYCLE < 50 %

- Combines a smaller MOSFET with lower Q_g for control switch and a larger MOSFET with lower $R_{DS(on)}$ for synchronous switch

ROBUST FOR AUTOMOTIVE

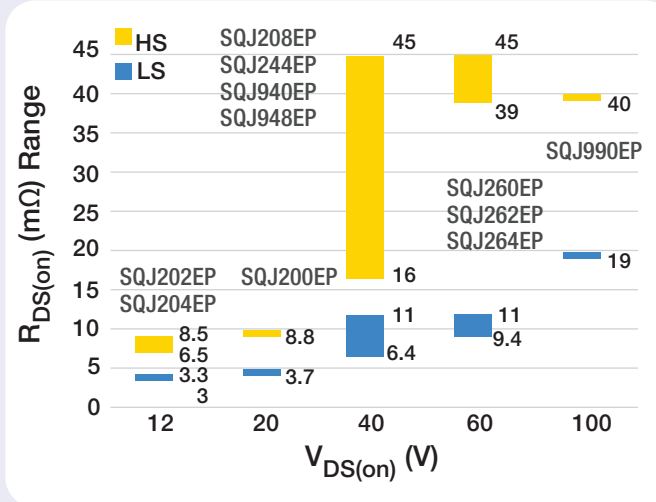
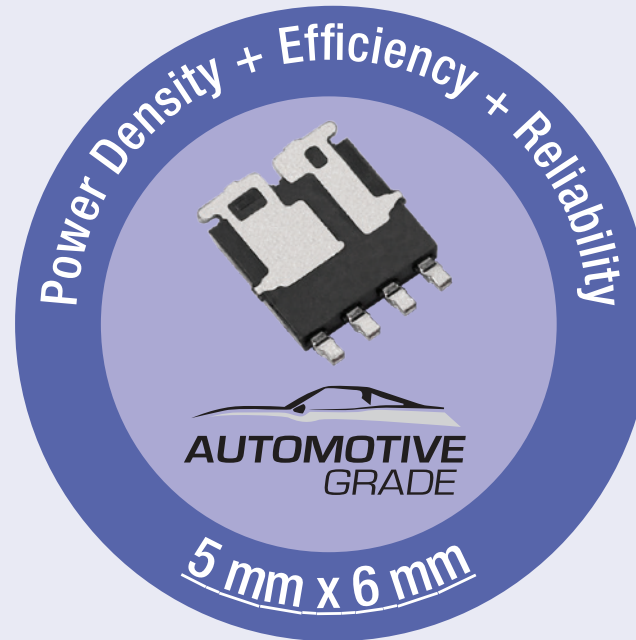
- AEC-Q101 qualified
- Maximum $T_j = 175\text{ }^\circ\text{C}$
- Gullwing leads maximize mechanical stress relief

Typical configuration in a synchronous buck converter



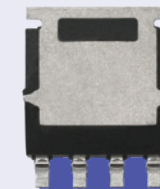
V_{DS} RATINGS FROM 12 V TO 100 V

- Solutions for 5 V to 48 V input rails
- $R_{DS(on)}$ as low as 3 m Ω
- Logic level devices and product with ratings at 3.3 V are available



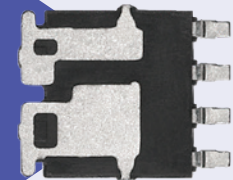
SAVES SPACE, INCREASES POWER DENSITY

- Reduces component count for DC/DC converters
- Saves up to 50 % of PCB real estate by replacing two 5 mm by 6 mm packages with one

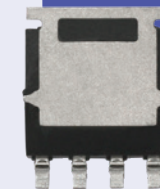


SQJ200EP
8.8 m Ω + 3.7 m Ω
32.8 mm²

SQJA42EP
+
SQJA38EP
9.4 m Ω + 3.9 m Ω
65.6 mm² total
(2 x 32.8 mm²)



Example for component reduction



APPLICATIONS

- E-bike
- Infotainment
- Cameras
- Radar