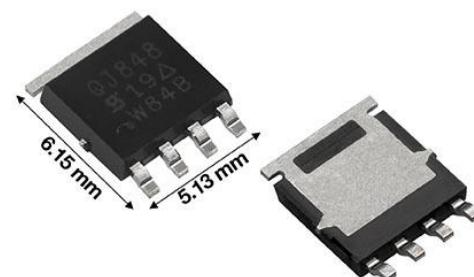


# New SQJ211ELP Automotive Grade AEC-Q101 Qualified -100 V P-Channel MOSFET Is Industry's First Such Device in Compact 5 mm x 6 mm PowerPAK® SO-8L Package With Gullwing Leads, Offers Best in Class On-Resistance Down to 30 mΩ

## Product Benefits:

- AEC-Q101 qualified
- Compact 5 mm by 6 mm PowerPAK® SO-8L package with gullwing leads
- On-resistance down to 30 mΩ at 10 V saves energy by reducing power losses from conduction
- Gate charge down to 45 nC at 10 V reduces losses from gate driving
- High temperature operation to +175 °C, the MOSFET provides the ruggedness and reliability
- Gullwing leads increase board-level reliability
- Lead (Pb)-free, halogen-free, and RoHS-compliant
- 100 % Rg and UIS tested



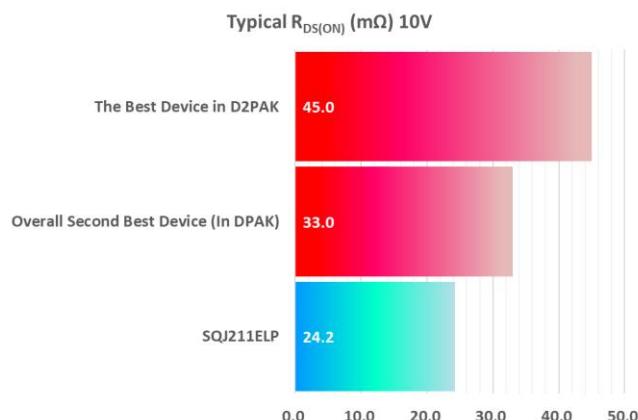
## Market Applications:

- Reverse polarity protection, battery management, high side load switching, and LED lighting in automobiles

## The News:

Vishay Intertechnology introduces a new AEC-Q101 qualified p-channel -100 V TrenchFET® MOSFET designed to increase power density and efficiency in automotive applications. Not only is the Vishay Siliconix SQJ211ELP the industry's first such device in the compact 5 mm by 6 mm PowerPAK® SO-8L package with gullwing leads, but it features best in class on-resistance down to 30 mΩ at 10 V.

- Compared to the closest competing p-channel devices in the DPAK and D<sup>2</sup>PAK packages, the SQJ211ELP delivers 26 % and 46 % lower on-resistance, respectively, while offering a 50 % and 76 % smaller footprint
- Gullwing leads allow for increased automatic optical inspection (AOI) capabilities and provide mechanical stress relief for increased board-level reliability
- The device's -100 V rating provides the safety margin required to support several popular input voltage rails, including 12 V, 24 V, and 48 V systems





# NEW PRODUCT INFORMATION

Product Group: Vishay Siliconix, MOSFETs / January 2021



- As a p-channel MOSFET, the SQJ211ELP enables more simple gate drive designs that don't require the charge pump needed by its n-channel counterparts

## The Key Specifications:

Part number	SQJ211ELP	
Package	PowerPAK SO-8L	
$V_{DS}$ (V)	-100	
$V_{GS}$ (V)	$\pm 20$	
$R_{DS(ON)}$ @ $V_{GS} = -10$ V (m $\Omega$ )	Typ.	24.2
	Max.	30.0
$R_{DS(ON)}$ @ $V_{GS} = -4.5$ V (m $\Omega$ )	Typ.	35.7
	Max.	43.5
$Q_g$ (nC)	$V_{GS} = -10$ V	45
	$V_{GS} = -4.5$ V	22*
$R_{DS} \cdot Q_g$ (m $\Omega$ *nC)	$V_{GS} = -10$ V	1089
	$V_{GS} = -4.5$ V	785
Footprint (mm $^2$ )		32.8

\*See gate charge figure on page 3 of the datasheet

## Availability:

Samples and production quantities of the SQJ211ELP are available now, with lead times of 14 weeks.

To access the product datasheet on the Vishay Website, go to

<http://www.vishay.com/ppg?77502> (SQJ211ELP)

For technical questions, contact:

[automostechsupport@vishay.com](mailto:automostechsupport@vishay.com)