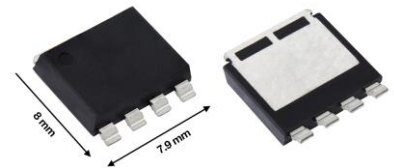


New 60 V and 80 V N-Channel MOSFETs in Compact PowerPAK® 8x8L Package With Gullwing Leads Offer $R_{DS(ON)}$ Down to 0.65 m Ω , High Temp. Operation to +175 °C, and I_D to 373 A to Increase Power Density, Efficiency, and Board-Level Reliability

Product Benefits:

- Increased power density:
 - Compact PowerPAK® 8x8L package
 - Continuous drain current of 373 A (SiJH600E) and 288 A (SiJH800E)
- Increased robustness and reliability:
 - High temperature operation to +175 °C
 - Gullwing leads
- Ultra low on-resistance of 0.65 m Ω (SiJH600E) and 1.22 m Ω (SiJH800E) typical at 10 V_{GS} saves energy by minimizing power losses due to conduction
- Lead (Pb)-free, halogen-free, and RoHS-compliant
- 100 % Rg and UIS tested



Market Applications:

- Synchronous rectification in power supplies, motor drive control, battery management, power tools, and industrial equipment.

The News:

Vishay Intertechnology introduces two new n-channel TrenchFET® MOSFETs in the space-saving PowerPAK 8x8L package with bond wireless and gullwing leads. Designed to increase power density, efficiency, and board-level reliability in telecom and industrial applications, the 60 V SiJH600E and 80 V SiJH800E combine ultra low on-resistance with high temperature operation to +175 °C and high continuous drain current.

- The devices' PowerPAK 8x8L package is 60 % smaller and 57 % thinner than the D²PAK
- To save board space, each MOSFET can be used in place of two PowerPAK SO-8 devices in parallel
- The MOSFETs' gullwing leads provide mechanical stress relief for increased board-level reliability
- The on-resistance of the SiJH600E and SiJH800E is 54 % and 52 % lower, respectively, than same-generation devices in the PowerPAK SO-8
- Thermal resistance to 0.36 (°C/W) is 60 % lower than the PowerPAKSO-8

The Key Specifications:

Part Number	V _{DS} (V)	I _D (A)	R _{DS(ON)} @ 10 V (m Ω)	Q _g @ 10 V (nC)	R _{thjc} (°C/W)
SiJH600E	60	373	0.65	141	0.36
SiJH800E	80	299	1.22	140	0.36



Package Comparison:

Package	Length (mm)	Width (mm)	Thickness (mm)	Dimension (LxW mm ²)
PowerPAK 8x8L	8.0	7.9	1.8	63.2
D ² PAK (TO-263)	15.2	10	4.4	152

Availability:

Samples of the SiJH600E and SiJH800E are available now. For production quantity availability, please contact your Vishay sales branch.

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

<https://www.vishay.com/ppg?63073> (SiJH600E)

<https://www.vishay.com/ppg?63064> (SiJH800E)

Selector Guide:

[25 V to 150 V MOSFETs in PowerPAK® SO-8L and PowerPAK® 8x8L Packages with Gullwing Leads](#)

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