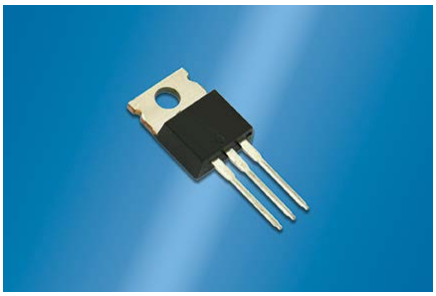
Author: David Grey
Tel: +1 (408) 970-5311
E-mail: david.grey@vishay.com

New SiHP065N60E Fourth-Generation 600 V E Series Power MOSFET Lowers Conduction and Switching Losses, Increases Efficiency

Product Benefits:

- Ultra-low on-resistance and gate charge reduce conduction and switching losses to save energy
- Gate charge times on-resistance figure of merit (FOM) of 2.8 Ω*nC
- Low effective output capacitances $C_{o(er)}$ and $C_{o(tr)}$ improve switching performance
- Offered in the TO-220AB package
- RoHS-compliant, halogen-free
- Designed to withstand overvoltage transients in the avalanche mode with guaranteed limits through 100 % UIS testing



Market Applications:

- Power factor correction and hard-switched DC/DC converter topologies for telecom, industrial, and enterprise power systems

The News:

Vishay Intertechnology introduces the first device in its fourth generation of 600 V E Series power MOSFETs. Providing high efficiency for telecom, industrial, and enterprise power supply applications, the Vishay Siliconix n-channel SiHP065N60E offers the industry's lowest gate charge times on-resistance, a key FOM for 600 V MOSFETs used in power conversion applications.

- Built on Vishay's latest energy-efficient E Series superjunction technology
- Slashes on-resistance by 30 % compared to previous 600 V E Series MOSFETs, while delivering 44 % lower gate charge.
- FOM is 25 % lower than the closest competing MOSFET in the same class

The Key Specifications:

- Drain-source voltage: 600 V
- Maximum on-resistance at 10 V: 0.066 Ω
- Typical gate charge at 10 V: 49 nC
- Effective output capacitance, energy related: 93 pF
- Effective output capacitance, time related: 593 pF
- Package: TO-220AB

The Perspective:

Vishay is committed to providing its customers with a broad line of MOSFET technologies that support all stages of the power conversion process, from high-voltage inputs to the low-voltage outputs required by the latest electronic systems. With the SiHP065N60E and the upcoming fourth-generation 600 V E Series family, the company is addressing the need for efficiency and power density improvements in the first stages of the power system architecture — power factor correction and subsequent high-voltage DC/DC converter blocks.

Availability:

Samples of the SiHP065N60E are available now. Production quantities will be available in January 2017, with lead times of 10 weeks.

To access the product datasheets on the Vishay Website, go to
http://www.vishay.com/ppg?91938 (SiHP065N60E)

Contact Information:

THE AMERICAS
Vishay Americas
HVM_Americas@vishay.com

EUROPE
Vishay Electronic GmbH
HVM_Europe@vishay.com

ASIA/PACIFIC
Vishay Intertechnology Asia Pte Ltd.
HVM_Asia@vishay.com