Philips announces new portfolio of power MOSFETs for motor control applications

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New devices offer power-efficient motor control using Philips' advanced Trench technology

Leveraging its expertise in power semiconductors and automotive electronics, Royal Philips Electronics introduced a portfolio of power Trench MOSFETs for controlling the speed and direction of DC motors. With several key features to enhance power-efficiency, including low on resistance [Rds(on)] for minimal power loss, these new MOSFETs are ideally suited to provide efficient and reliable motor control in a broad variety of applications, ranging from electric vehicles to industrial robotics.

Designers of motor control applications are seeking even more efficient, cost effective, power management for their applications. Philips is meeting these demands by bringing to market a range of more than 25 MOSFETs, packaged in the industry standard D^2PAK and TO220, with a range of Rds(on) options optimized for different 12V and 24V motor control applications. Offering highly efficient electrical performance, these new Trench devices can extend the battery life of motor applications such as electric vehicles or hospital beds, enabling the end user to get more use out of their product.

"Philips has been working closely with our customers to ensure that our new family of MOSFETs for DC motor control meet a wide variety of application needs," said John Miller, manager of marketing strategy and

innovation for Philips Semiconductors' power management business. "As a result, we are offering a portfolio of more than fifty devices designed to meet the technical and cost considerations of our customers."

Philips' MOSFETs, already approved for use in the automotive industry for their robust design, have several features that make them suitable for operation in DC motor control circuits. These include fast switching for low-loss operation to increase battery life and, in some cases, to reduce the need for an external heatsink. In addition, the robust construction of the devices allows the MOSFETs to handle large current spikes without incurring any damage, and to work in parallel with excellent current sharing capabilities.

Availability
Philips' portfolio of MOSFETs for DC motor control applications is available now. The portfolio includes the following MOSFETs in both TO220 and D^2PAK packaging:

Philips' PHP/PHB222NQ04LT N-channel devices, operating at 40V with an Rds(on) of 2.8mΩ
Philips' PHP/PHB160NQ08T N-channel devices, operating at 75V with an Rds(on) of 5.6mΩ
Philips' PHP/PHB191NQ06LT N-channel devices, operating at 55V with an Rds(on) of 3.7mΩ
Philips' PSMN009-100P/100B N-channel devices, operating at 100V with an Rds(on) of 8.8mΩ

Source: www.semiconductors.philips.com/

power-mosfets-motor.html