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New 500-V N-Channel SiHP18N50C, SiHF18N50C, and SiHG20N50C Power MOSFETs

The Key Benefits:

- Offered in TO-220 (SiHP18N50C), TO-220F FULLPAK (SiHF18N50C), and TO-247 (SiHG20N50C) packages
- Combine 500-V ratings with low 0.270- Ω maximum on-resistance at a 10-V gate drive
 - Lowers conduction losses and saves energy
- Low gate charge of 65 nC and gate charge times on-resistance of 17.75 nC
- Provide reliable operation
 - 100 % avalanche tested
 - High single-pulse (E_{AS}) and repetitive (E_{AR}) avalanche energy capabilities
- Peak current handling of 72 A pulsed and 18 A continuous
- Available with lead (Pb)-free terminations



The Key Applications:

- Power factor correction (PFC) and pulsewidth modulation (PWM) applications in a wide range of electronic systems, including LCD TVs, PCs, servers, telecom systems, and welding machines

The News:

New 500-V Vishay Siliconix Power MOSFETs Feature 0.270- Ω On-Resistance in TO-220, TO-220F, and TO-247 Packages

Vishay Intertechnology, Inc. (NYSE: VSH) introduces three new 500-V MOSFETs that extend its Gen 6.2 n-channel planar FET technology to the TO-220, TO-220F, and TO-247 packages.



The Key Specifications:

Device	Package	V _{DS} (V)	V _{GS} (± V)	I _D (A)	R _{DS(on)} (Ω)	Q _g (nC)	R _{th(j-a)} (°C/W)
SiHP18N50C	TO-220	500	30	18	0.270	65	62
SiHF18N50C	TO-220 FULLPAK	500	30	18	0.270	65	65
SiHG20N50C	TO-247	500	30	20	0.270	65	40

The Perspective:

Vishay's three new 500-V MOSFETs in the TO-220 (SiHP18N50C), TO-220F FULLPAK (SiHF18N50C), and TO-247 (SiHG20N50C) packages utilize Gen 6.2 n-channel planar FET technology to achieve a low on-resistance for lower conduction losses and increased energy savings in a wide range of electronic systems. All three MOSFETs feature an effective output capacitance specification. Compared to previous-generation 500-V power MOSFETs, the new devices also feature improved transconductance and reverse recovery characteristics.

Availability: Samples of the new devices are available now. Production quantities will be available in Q3 2009, with lead times of 8 to 10 weeks for larger orders.

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