



600 V POWER MOSFETs

SiHG22N60S-E3 / SiHG47N60S-E3

MOSFETs

PRODUCT OVERVIEW

600 V



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Vishay is adding to its Super Junction power MOSFET family with new n-channel devices in the TO-247 package, featuring ultra-low maximum on-resistance and low gate charge for an improved figure of merit (FOM).

Features:

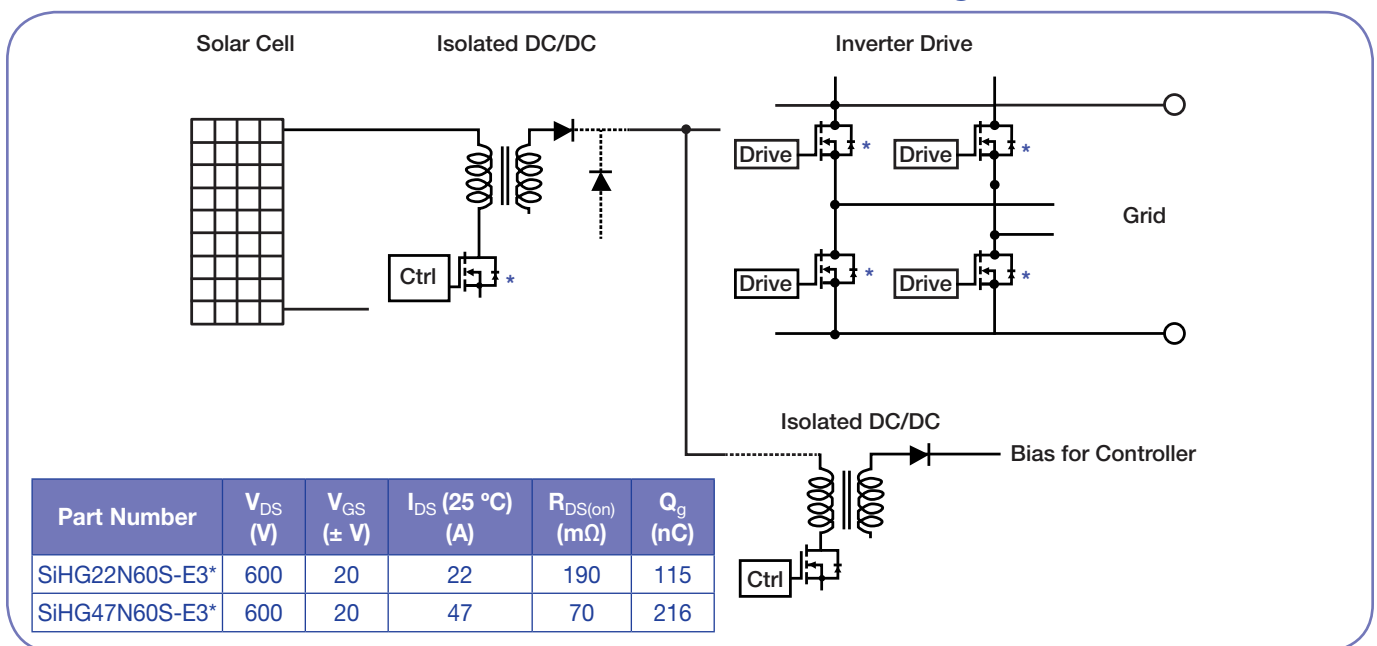
- High E_{AR} capability
- Improved $R_{ON} \times Q_g$ figure of merit (FOM)
 - 18.81 Ω -nC (SiHG22N60S-E3)
 - SiHP22N60S-E3, SiHF22N60S-E3, and SiHB22N60S-E3 also available
 - 15.12 Ω -nC (SiHG47N60S-E3)
- Ultra-low $R_{DS(on)}$
- Ultra-low gate charge (Q_g)
- 100 % avalanche tested
- dV/dt ruggedness
- Compliant to RoHS Directive 2002/95/EC

Applications

- PFC power supply stages
- Hard switching topologies
- Solar inverters
- UPS
- Motor control
- Lighting
- Server telecom

These devices are produced using Vishay Super Junction technology, which has been tailored to minimize on-state resistance and withstand high energy pulses in the avalanche and commutation modes.

Solar Cell and Inverter Block Diagram

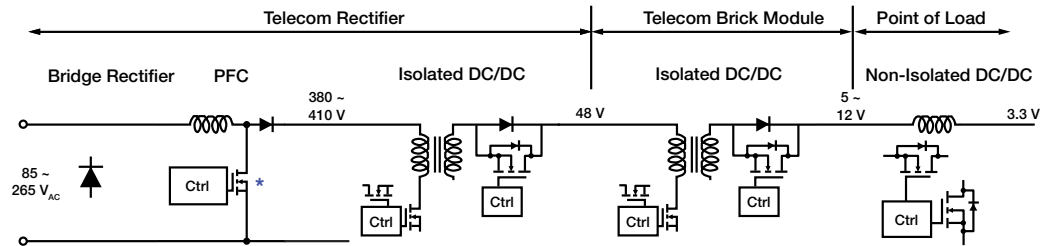


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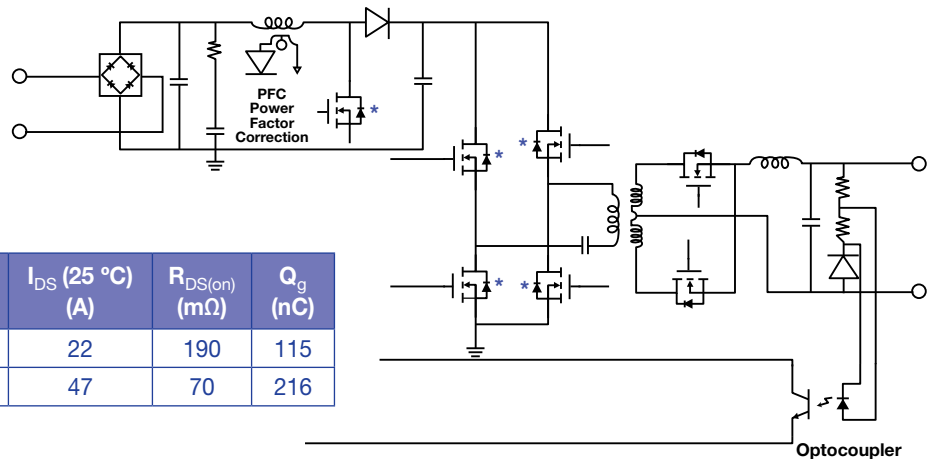


Telecom Power Supply Block Diagram



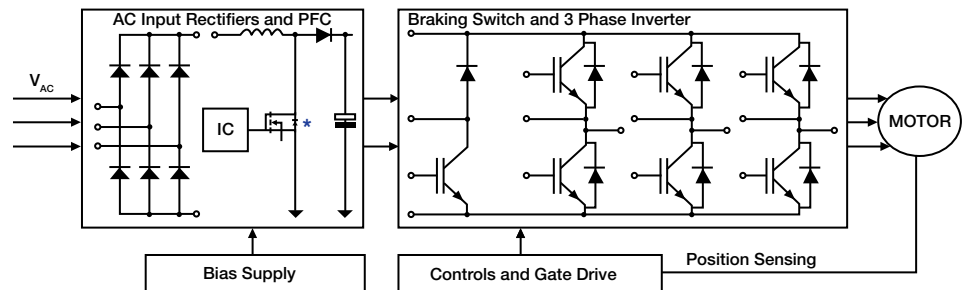
Part Number	V _{DS} (V)	V _{GS} (± V)	I _{DS} (25 °C) (A)	R _{DS(on)} (mΩ)	Q _g (nC)
SiHG22N60S-E3*	600	20	22	190	115
SiHG47N60S-E3*	600	20	47	70	216

Server Power Supply Block Diagram



Part Number	V _{DS} (V)	V _{GS} (± V)	I _{DS} (25 °C) (A)	R _{DS(on)} (mΩ)	Q _g (nC)
SiHG22N60S-E3*	600	20	22	190	115
SiHG47N60S-E3*	600	20	47	70	216

Motor Control Power Supply Block Diagram



Part Number	V _{DS} (V)	V _{GS} (± V)	I _{DS} (25 °C) (A)	R _{DS(on)} (mΩ)	Q _g (nC)
SiHG22N60S-E3*	600	20	22	190	115
SiHG47N60S-E3*	600	20	47	70	216

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