NEW 500 V N-CHANNEL PLANAR FET GEN 6.4 TECHNOLOGY

New High-Voltage MOSFETs Combine Low On-Resistance, Low Gate Charge

PRODUCT DESCRIPTION

With the SiHP18N50C and SiHG20N50C, Vishay is extending its Gen 6.4 planar MOSFET technology to the TO-220 and TO-247 packages. Their low on-resistance, down to 270 mΩ maximum at V_{GS} = 10 V, helps save energy by reducing conduction losses.

KEY BENEFITS

- Combine 500 V ratings with low 0.270 Ω maximum on-resistnace at a 10 V gate drive
  - Lowers conduction losses and saves energy
- Low gate charge of 65 nC and agte charge times on-resistance of 17.75 ΩnC
- Provide reliable operation
  - 100 % avalanche testsed
  - 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

Datasheet is available on our web site at www.vishay.com
for Planar FET 6.4 - http://www.vishay.com/doc?91374
http://www.vishay.com/doc?91382

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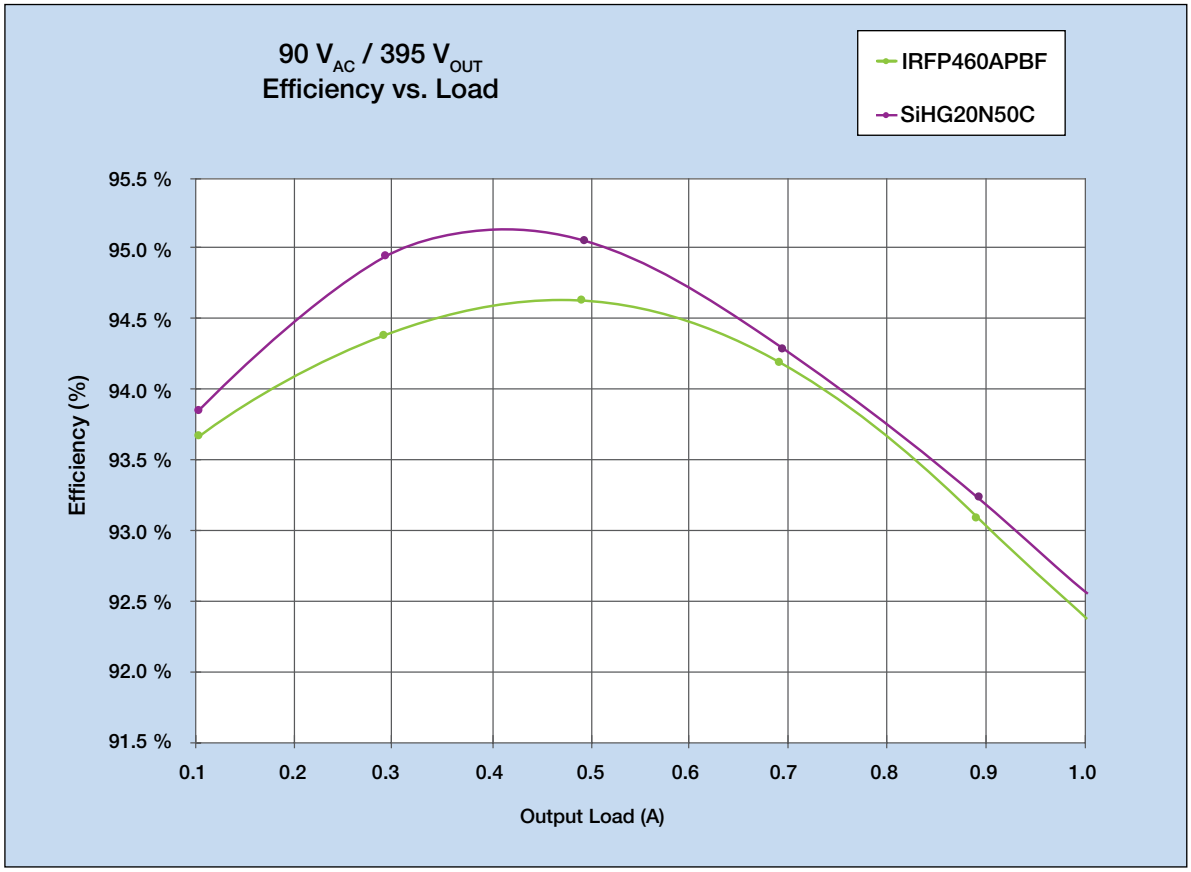
EFFICIENCY COMPARISON



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

KEY SPECIFICATIONS

PART NUMBER	PACKAGE	V_{DS} (V)	V_{GS} (± V)	I_{DS} (A) 25 °C	Max $R_{DS(on)}$ (mΩ) at V_{GS} = 10 V	Q_g (nC)	C_{iss} (pF)	C_{rss} (pF)
SiHP18N50C-E3	TO-220	500	30	18	270	65	2451	26
SiHG20N50C-E3	TO-247	500	30	20	270	65	2451	26

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