

Product Overview

NVHL050N65S3HF: Power Mosfet - N-Channel, SUPERFET III, FRFET 650 V, 58 A, 50 mΩ

For complete documentation, see the data sheet.

SUPERFET III MOSFET is ON Semiconductor's brand-new high voltage super-junction (SJ) MOSFET family that is utilizing charge balance technology for outstanding low on-resistance and lower gate charge performance. This advanced technology is tailored to minimize conduction loss, provide superior switching performance, and withstand extreme dv/dt rate. Consequently, SUPERFET III MOSFET is very suitable for the various power systems for miniaturization and higher efficiency. SUPERFET III FRFET MOSFET's optimized reverse recovery performance of body diode can remove additional component and improve system reliability

Features

- Best in Class Body Diode
- Internal R_g
- Lower RDS(ON) / Same Packages
- Lower FOM (RDS(ON) max. X Q_g typ. & RDS(ON) max. X E_{oss})
- Internal Zener / 650V BV dss

Benefits

- Lower over shoot during reverse recovery
- Low switching noise
- High System Reliability
- Ease of use for fast design-in
- Low EMI & High Power Density

Applications

- OBC
- HV DC/DC converter

End Products

- On Board Charger
- DC/DC Converter

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Channel Polarity	Configuration	V _{DSS} (BR) Min (V)	V _{GS} Max (V)	V _{GS(th)} Max (V)	I _D Max (A)	P _D Max (W)	R _{DS(on)} Max @ V _{GS} = 2.5 V (mΩ)	R _{DS(on)} Max @ V _{GS} = 4.5 V (mΩ)	R _{DS(on)} Max @ V _{GS} = 10 V (mΩ)	Q _g Typ @ V _{GS} = 4.5 V (nC)	Q _g Typ @ V _{GS} = 10 V (nC)	C _{iss} Typ (pF)	Package Type	
NVHL050N65S3HF	5.9396	AEC Qualified PPAP Capable Pb-free Halide free	NEW	N-Channel	Single	650	±30	5	58	403				50		119	4880	TO-247-3LD

For more information please contact your local sales support at www.onsemi.com.

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