

NVHL040N60S5F

Power MOSFET, N-Channel, SUPERFET® V, FAST, 600 V, 59 A, 40 mΩ, TO-247

The SUPERFET V MOSFET is the fifth generation high voltage superjunction (SJ) MOSFET family from ON Semiconductor. SUPERFET V delivers bestinclass FOMs (RDS(ON)·QG and RDS(ON)·EOSS) to improve not only heavy load but also light load efficiency. The 600 V SUPERET V series provides design benefits through reduced conduction and switching losses, while supporting extreme MOSFET dVDS/dt ratings at 120 V/ns. Consequently, the SUPERFET V MOSFET FAST series helps maximize system efficiency and power density.

- Ultra Low Gate Charge (Typ. Qg = 108 nC)
- Low Effective Output Capacitance (Typ. Coss(eff.) = 643 pF)
- Fast switching performance with robust body diode
- 650 V @ TJ = 150°C
- Typ. RDS(on) = 32.8 mΩ
- 100% Avalanche Tested
- RoHS Compliant
- Internal Gate Resistance: 0.6 Ω
- AEC Q101 Qualified
- Low switching loss
- Low switching loss
- Low switching loss and higher system reliability
- Automotive On Board Charger (OBC)
- Automotive BEV
- Automotive off main battery DC/DC conversion

	Pricing (\$/Unit)	Compliance	Status	Channel Polarity	Configuration	V _{DS(BR)Min} (V)	V _{GSMax} (V)	V _{GS(t)Max} (V)	I _{DMax} (A)	P _{DMax} (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
NVHL040N60S5F	5.6611		NEW	N-Channel	Single	600	30	4.8	59	347			40		115	6318	TO-247-3LD