

Product Overview

NVHL080N120SC1: N-Channel Silicon Carbide MOSFET 1200 V, 80 mΩ , TO247-3L

For complete documentation, see the data sheet.

Silicon Carbide (SiC) MOSFET uses a completely new technology that provide superior switching performance and higher reliability compared to Silicon. In addition, the low ON resistance and compact chip size ensure low capacitance and gate charge. Consequently, system benefits include highest efficiency, faster operation frequency, increased power density, reduced EMI, and reduced system size.

Features

- 1200V rated
- Max RDS(on) = 110mΩ at Vgs = 20V, Id = 20A
- High Speed Switching and Low Capacitance
- 100% UIL Tested
- Qualified for Automotive According to AEC-Q101
- Devices are Pb-Free and are RoHS Compliant

Applications

- PFC
- OBC

End Products

- Automotive DC/DC converter for EV/PHEV
- Automotive On Board Charger
- Automotive Auxiliary Motor Drive

Part Electrical Specifications

Product	Compliance	Status	Channel Polarity	Configuration	V _{DS(BR)D} 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)	Pack age Type
NVHL080N120SC1	AEC Qualified PPAP Capable Pb-free Halide free	NEW	N-Channel	Single	1200 V	25	4.3	44	348						1112	TO-247-3LD

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

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