NCS025M3E120NF06X

EliteSiC 1200V M3e Bare Die Silicon Carbide MOSFETs - 3rd Generation

Product Overview

For complete documentation, see the data sheet.

onsemi is proud to offer the 3rd generation of EliteSiC Silicon Carbide (SiC) MOSFETs in bare die format - optimized for use in high power applications such as EV Traction inverters, DC-DC converters, and off-board chargers.
Based on the latest generation of SiC MOSFET technology from onsemi, the M3e product family offers the lowest on-resistance in its class, with optimized top and back metal options suitable for multiple packaging technologies including soldering, sintering, wire-bond, die top copper, and ribbon bonds. By utilizing onsemi's M3e product, packaging flexibility helps to reduce the system size, weight, application complexity, while increase power density and efficiency in traction inverter applications of electric vehicles. Moving from silicon based solutions to silicon carbide based solutions helps to improve efficiency and range by up to 5% in battery electric vehicle traction inverters.

Features

- 3rd Generation SiC MOSFET
- High Blocking Voltage 1200V
- Low Conduction Losses Over Temperature

Applications

- Main Traction Inverter Applications
- High Voltage DC/DC Converters
- Off-Board Chargers

End Products

- 1200V SiC MOSFET Bare Dice

Part Electrical Specifications

Product	Status	Compilance	Family	Blocking Voltage BV_{DSS} (V)	$I_{D(max)}$ (A)	$R_{DS(on)}$ Typ @ 25°C (mΩ)	Q_g Total (nC)	Output Capacitance (pF)	T_j Max (°C)	Bare Die	Package Type	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.
NCS025M3E120NF068-09	Product Preview		Elite SiC M3e	1200	150	11	204	221	175	Y	-		NA	0	MTFRM	1
NCS025M3E120NT066-09	Product Preview		Elite SiC M3e	1200	150	11	204	221	175	Y	-		NA	0	REEL	3000