

NVXR17S90M2SPB

VE-Trac Direct SiC - Automotive Traction 900V, 1.7mOhm Single Side Direct Cooling 6-Pack Silicon Carbide Power Module

Product Overview

For complete documentation, see the data sheet.

The NVXR17S90M2SPB is a Silicon Carbide (SiC) power module from the VE-Trac™ Direct SiC family of highly integrated power modules with industry-standard footprints for Hybrid and Electric Vehicle (HEV) traction inverter applications. The module integrates the onsemi 900V SiC MOSFET technology in a 6-pack configuration.

For assembly ease and reliability, a new generation of press-fit pins is integrated into the power module signal terminals. In addition, it also integrates an optimized pinfin heatsink in the baseplate.

To enhance reliability and thermal performance, sintering technology is applied for die attach.

Features

- Direct Cooling with integrated Pin-fin Heatsink
- Silicon Nitride Isolator
- $T_{vj,max} = 175^{\circ}C$ for continuous operation
- Automotive Grade SiC MOSFET Chip Technology
- Sintered Die Technology
- 6-pack Topology

Benefits

- Cost efficient system integration
- High thermal performance
- High Inverter Peak Output Power
- High Efficiency in all duty cycles
- High Reliability
- Full Bridge System in one module


Applications

- Converter DC Battery Output to Power AC Traction Motors
- High Power DC-DC Converter

End Products

- Main Traction Inverter for Battery Electric Vehicle, Plug-in Hybrid Vehicles, and Full Hybrid Vehicles

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | Configuration | V_{BR} Max (V) | $R_{DS(on)}$ Typ (mΩ) | Application | Package Type |
|----------------|-------------------|-------------------------------------------------------------------------------------|--------|---------------|------------------|-----------------------|-------------|---------------------------|
| NVXR17S90M2SPB | 3933.6883 |  | Active | Six-Pack | 900 | 1.7 | | SSDC39, 154.50x92.0 (SPB) |