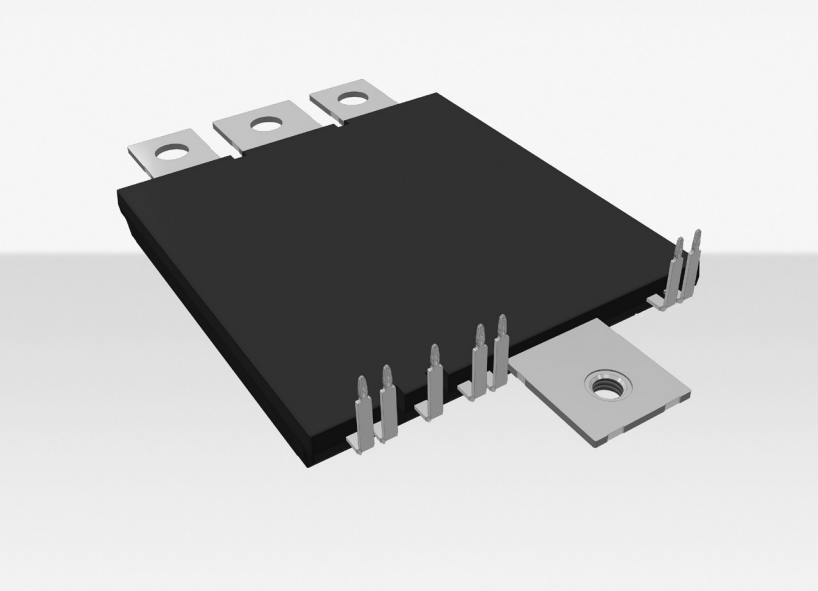
PRODUCT NOTE

RoadPak module
SiC performance



ABB's SiC e-mobility module pushes the boundaries of power density and reduces stray inductance to new levels.

— 01 RoadPak module

ABB's power semiconductors provide unsurpassed reliability and outstanding quality. Failure is not an option when driving electrical motors, ensuring smooth acceleration of trains, or transmitting gigawatt power over long distances and underwater. RoadPak is the first module for e-mobility applications in our proven portfolio of power semiconductors that takes advantage of silicon carbide (SiC) technology.

RoadPak benefits
The key benefit is the high-current rating in a small package that is enabled by the use of SiC, combined with very small stray inductance and well-known ABB reliability. The RoadPak will be certified according to IATF19646 and will be AQG 324 qualified.

Features 1200 V SiC MOSFET transistors

- Compact design
- Half bridge configuration with two MOSFET switches
- Pin-Fin structure for lowest thermal resistance
- Lowest loss enabled by SiC chipset
- Lowest stray inductance
- Voltage rating: 1200 V
- Current up to 980A

Typical applications

Trucks
High power in a small package allows efficient inverter design
Public transport
High reliability for the typical stop-and-go operation of e-buses and trams
Aviation
Performance and reliability to meet the demands of a wide range of aviation applications
Charging
Delivers performance to enable fast charging of trucks and buses

Available ratings

Voltage (V)	Current (A)	Configurations
1200	580*	Half bridge
1200	780*	Half bridge
1200	980*	Half bridge

* Max. chip rating

ABB Power Grids Switzerland Ltd
Semiconductors
Fabrikstrasse 3
5600 Lenzburg, Switzerland

abb.com/semiconductors