

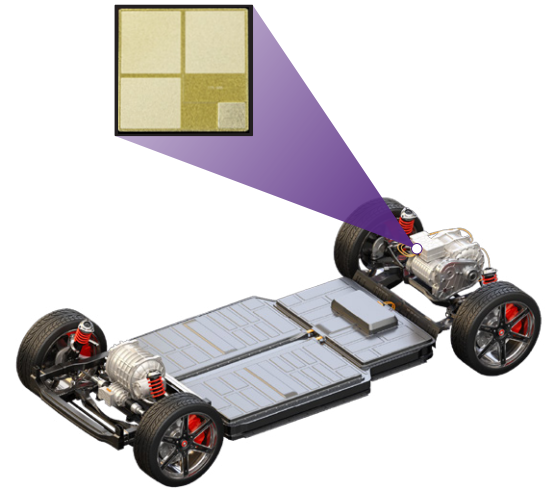


# ELECTRIC VEHICLE INVERTER

## WOLFSPEED® SILICON CARBIDE SOLUTIONS FOR EV INVERTER

Wolfspeed® continues to lead in silicon carbide with our first Automotive E-Series line of Bare Die Silicon Carbide (SiC) MOSFETs. The portfolio is fully automotive qualified, with high blocking voltage with the industry-leading low  $R_{DS(ON)}$  over temperature stability, enabling low conduction losses and highest figures of merit in the most demanding applications. These devices are optimized for use in high power applications such as automotive drive trains, motor drives, solid state circuit breakers, resonant topologies, and more.

Based on the latest 3<sup>rd</sup> generation technology; Wolfspeed's Bare Die Silicon Carbide MOSFETs include a range of on-resistance and package options that enable designers to select the right part for their application. The MOSFETs are designed for low  $R_{DS(ON)}$ , are easy to parallel and compatible with standard gate drive design. The efficiency gained by moving from a silicon-based solution to silicon carbide can help reduce system size, weight, and cooling requirements.



### Power Die Automotive Products

Part Number	Blocking Voltage (V)	$R_{DS(ON)}$ at 25°C	Die Size (mm <sup>2</sup> )	Status
EPM3-0750-0010D	750	10	25	Released
EPM3-1200-0017C	1200	17	25	Released
EPM3-1200-0017D	1200	17	25	Released
EPM3-1200-0017D1	1200	17	25	Released



#### FEATURES

Automotive qualified

High blocking voltage with industry leading low  $R_{DS(ON)}$  over temperature stability

Resistant to latch-up

High gate resistance for drives



#### BENEFITS

Improves system efficiency with lower switching and conduction losses

Reduces system size, weight, and cooling requirements

Enables high switching frequency operation

Easy to parallel and compatible with standard gate drive design



#### APPLICATIONS

Automotive drivetrain

Motor drives

Solid state circuit breaker

Resonant topologies

TO LEARN MORE, VISIT US AT [WOLFSPEED.COM/POWER](https://www.wolfspeed.com/power)

[wolfspeed.com](https://www.wolfspeed.com)

© 2022 Wolfspeed, Inc. All rights reserved. The information in this document is subject to change without notice. Wolfspeed® and the Wolfstreak logo are registered trademarks and the Wolfspeed logo is trademark of Wolfspeed, Inc.