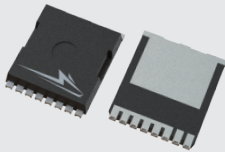
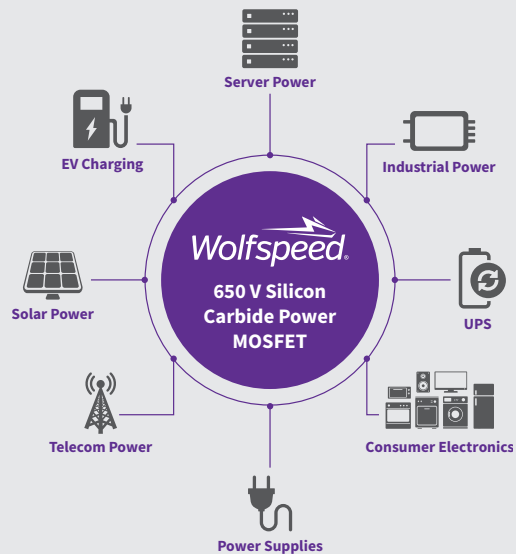




WOLFSPEED® 650 V SILICON CARBIDE MOSFET IN COMPACT TOLL (TO-LEADLESS) PACKAGE

ENABLING HIGH EFFICIENCY AND HIGH POWER DENSITY IN THE MOST DEMANDING SERVER AND DATA CENTER APPLICATIONS

Wolfspeed’s 650 V Silicon Carbide MOSFET is optimized for high-performance power electronics applications, including enterprise, server and telecom power supplies, electric vehicle charging systems, energy storage systems, and battery management systems. Wolfspeed® Silicon Carbide MOSFETs have a much lower on-state resistance temperature dependence than silicon MOSFETs, resulting in superior switching speeds and low conduction loss, which is critical to achieve high efficiency at high power for next generation power supplies. The compact footprint, lower losses and high power dissipation capability of TOLL package enable high-power density designs.



Part Number	Voltage	$R_{DS(ON)}$	Current Rating	Package
C3M0045065L	650 V	45 mΩ	50 A	TOLL
C3M0060065L	650 V	60 mΩ	36 A	TOLL
C3M0120065L	650 V	120 mΩ	21 A	TOLL



FEATURES

- 25% Smaller Footprint as Compared to Standard TO-263-7L Package
- High Power Dissipation due to Large Back Metal Tab
- Lower Lead Inductance
- High Frequency Operation



BENEFITS

- Improve System Efficiency and Power Density
- Enable High Switching Frequency Operation
- Less Cooling Requirements
- Lower System Cost
- Reduce System Size and Weight





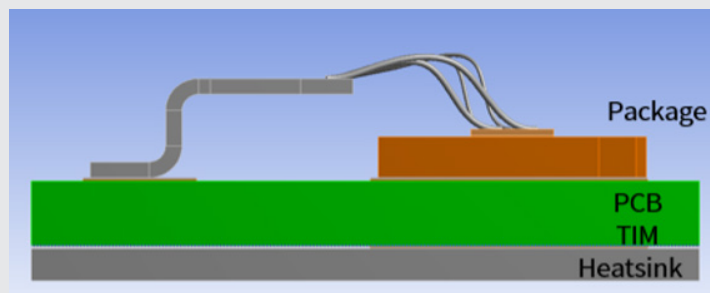
APPLICATIONS

- Enterprise Power Supplies
- Server and Telecom Power Supplies
- Energy Storage Systems (ESS)
- EV Battery Chargers
- Solar Power Inverters
- Motor Drives
- Battery Management Systems

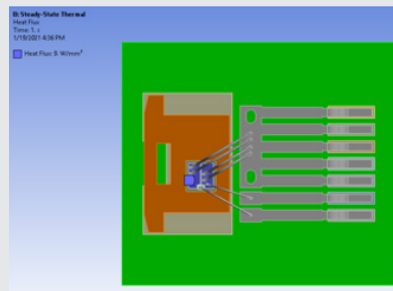
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Wolfspeed C3M™ SILICON CARBIDE MOSFET Thermal Simulation Comparison TO-263-7L vs TOLL

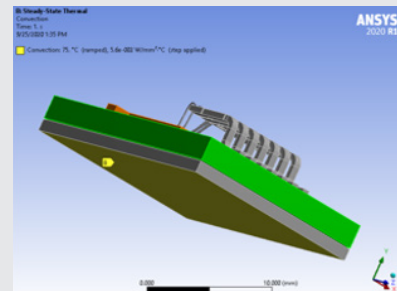
Thermal Performance		
Package	TOLL 	TO-263-7L 
T_{jmax} (°C)	152	175



Power - 28 w



Convection - 5000 W/m²k



Why Wolfspeed Silicon Carbide?

Wolfspeed invented the Silicon Carbide MOSFET
30+ years of Silicon Carbide power with 7+ trillion installed field hours

Wolfspeed is investing for the Future
#1 market share in Silicon Carbide technology, with the world's first, largest, and only 200mm Silicon Carbide fabrication facility

17+ Years of Diode and MOSFET Production
Thousands of customers with millions of MOSFETs, Diodes and Modules

Focused Development and Customer Support
ALL resources dedicated to developing Silicon Carbide capacity, devices, packages, and to providing superior applications support

We Provide Silicon Carbide Solutions

- » Silicon Carbide power devices
- » Silicon Carbide expertise—this is all we do
- » Application reference designs
- » Expert systems engineering support
- » Online simulation platform

TO LEARN MORE, VISIT US AT WOLFSPEED.COM/POWER

wolfspeed.com

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