

ON Semiconductor®



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Avnet is your one stop shop when it comes to leading-edge high power solutions from ON Semiconductor

Silicon Carbide Technology has a better thermal conductivity (3x) and a higher breakdown field strength (10x) over traditional Silicon technology. This enables higher current density, lower capacitance hence faster-switching frequency and low on-resistance at a device level. Benefits for systems employing Silicon Carbide devices are consequently reduced losses, higher temperature operation, and optimized system size and weight performance.

Silicon Carbide Evaluation Board

NCP51705SMDGEVB application daughter-card for ON Semiconductor's NCP51705 silicon carbide MOSFET driver.

This EVB is designed on a four-layer PCB and includes the NCP51705 driver and all the necessary drive circuitry.



The EVB also includes an on-board digital isolator and the ability to solder any MOSFET or SiC MOSFET in a TO-247 high voltage package. This mini board brings versatility that can be utilized in current or new designs (prototypes). The NCP51705 driver is designed to primarily drive SiC MOSFET transistors to achieve the lowest possible conduction losses, capable of delivering maximum allowable gate voltage to the SiC MOSFET device



MOSFETS - NTHL080N120SC1 and NTHL060N090SC1

<https://www.avnet.com/wps/portal/us/products/product-highlights/on-semiconductor-wide-band-gap-technology/>

Demo Kit Includes:

NCP51705SMDGEVB: application daughter-card for ON Semiconductor's NCP51705 silicon carbide MOSFET driver

NTHL080N120SC1 MOSFET

NTHL060N090SC1 MOSFET



NTHL080N120SC1

Features & Benefits

- 1200V rated
- Typical $R_{DS(on)} = 80m\Omega$
- Ultra Low Gate Charge ($Q_{g\ tot} = 56nC$)
- Low Effective Output Capacitance ($C_{oss} = 80pF$)
- High Speed Switching and Low Capacitance
- 100% UIL Tested

Applications

- PFC
- Boost Inverter
- PV Charging

End Products

- Solar Inverter
- Network Power Supply
- Charging Stations

NTHL060N090SC1

Features & Benefits

- 900V rated
- Typical $R_{DS(on)} = 60m\Omega$
- Ultra Low Gate Charge ($Q_{g\ tot} = 87nC$)
- Low Effective Output Capacitance ($C_{oss} = 113pF$)
- 100% UIL Tested

Applications

- PFC
- Boost Inverter
- PV Charging

End Products

- UPS
- Solar Inverter

CONTACT

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