

## Product Overview

### FDMC010N08C: N-Channel Shielded Gate PowerTrench® MOSFET 80 V, 51 A, 10 mΩ

For complete documentation, see the data sheet.

This N-Channel MV MOSFET is produced using ON Semiconductor's advanced PowerTrench® process that incorporates Shielded Gate technology. This process has been optimized to minimize on-state resistance and yet maintain superior switching performance with best in class soft body diode.

#### Features

- Low  $R_{DS(on)}$  and  $Q_g$
- Very Low  $Q_{rr}$
- Lowers switching noise / EMI
- 100% UIL tested

#### Applications

- High performance DC-DC converters
- AC-DC Synchronous Rectification
- Motor Control
- Solar

#### Benefits

- Minimize conduction and switching losses
- Minimize EMI and voltage overshoot

#### End Products

- Netcom/Telecom
- AC-Adapter
- Power Tools

### Part Electrical Specifications

| Product     | Compliance             | Status | Channel Polarity | Configuration | $V_{(BR)D}$<br>Min (V) | $V_{GS}$<br>Max (V) | $V_{GS(th)}$<br>Max (V) | $I_D$<br>Max (A) | $P_D$<br>Max (W) | $R_{DS(on)}$<br>Max @ $V_{GS} = 2.5$ V (mΩ) | $R_{DS(on)}$<br>Max @ $V_{GS} = 4.5$ V (mΩ) | $R_{DS(on)}$<br>Max @ $V_{GS} = 10$ V (mΩ) | $Q_g$<br>Typ @ $V_{GS} = 4.5$ V (nC) | $Q_g$<br>Typ @ $V_{GS} = 10$ V (nC) | $C_{iss}$<br>Typ (pF) | Package Type |
|-------------|------------------------|--------|------------------|---------------|------------------------|---------------------|-------------------------|------------------|------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------|--------------------------------------|-------------------------------------|-----------------------|--------------|
| FDMC010N08C | Pb-free<br>Halide free | Active | N-Channel        | Single        | 80                     | 20                  | 4                       | 51               | 2.4              | -                                           | 25                                          | 10                                         | 10                                   | 15                                  | 1070                  | PQFN-8       |

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

Created on: 9/19/2018