

Product Overview

FDPF8D5N10C: N-Channel PowerTrench® MOSFET, Shielded Gate, 100V, 76A, 8.5mΩ

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

- Max $R_{DS(on)}$ = 8.5 mΩ at $V_{GS} = 10$ V, $I_D = 76$ A
- High Performance Trench Technology for Extremely Low $R_{DS(on)}$
- Extremely Low Reverse Recovery Charge, Q_{rr}
- Low Gate Charge, $Q_G = 25$ nC (Typ.)
- High Power and Current Handling Capability
- 100% UIL Tested
- RoHS Compliant

Applications

- Synchronous Rectification for ATX / Server / Workstation / Telecom PSU / Adapter and Industrial Power Supplies.
- Motor drives and Uninterruptible Power Supplies
- Micro Solar Inverter

Benefits

- Power Density & Shielded Gate
Power Density & Shielded Gate
High efficiency / High performance
- High power density with Shielded gate technology
- Low V_{ds} spike internal snubber function.
- Low switching loss
- Low Q_{rr}/T_{rr}
- Soft recovery performance

End Products

- Server
- Telecom
- Computing (ATX, Workstation, Adapter, Industrial Power Supplies etc.)
- Motor Drive
- Uninterruptible Power Supplies

Part Electrical Specifications

Product	Compliance	Status	Chan- nel Polar- ity	Confi- gura- tion	$V_{(BR)D}$ SS Min (V)	V_{GS} Max (V)	$V_{GS(th)}$ Max (V)	I_D Max (A)	P_D Max (W)	$R_{DS(on)}$ Max @ $V_{GS} =$ 2.5 V (mΩ)	$R_{DS(on)}$ Max @ $V_{GS} =$ 4.5 V (mΩ)	$R_{DS(on)}$ Max @ $V_{GS} =$ 10 V (mΩ)	Q_g Typ @ $V_{GS} =$ 4.5 V (nC)	Q_g Typ @ $V_{GS} =$ 10 V (nC)	C_{iss} Typ (pF)	Pack- age Type
FDPF8D5N10C	Pb-free Halide free	Active	N- Chan- nel	Singl- e	100	20	4	76	35	-	-	8.5	-	25	1765	TO- 220-3 FullP ak

For more information please contact your local sales support at www.onsemi.com.

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