Product Overview

FCPF190N65S3L1: N-Channel SuperFET® III MOSFET 650 V, 14 A, 190 mΩ , TO-220F

For complete documentation, see the data sheet.

SuperFET® III MOSFET is ON Semiconductor's brand-new high voltage super-junction (SJ) MOSFET family that is utilizing charge balance technology for outstanding low on-resistance and lower gate charge performance. This advanced technology is tailored to minimize conduction loss, provide superior switching performance, and withstand extreme dv/dt rate. Consequently, SuperFET III MOSFET is very suitable for various power system for miniaturization and higher efficiency.

Features

- 700 V @ TJ = 150 °C
- Ultra Low Gate Charge (Typ. Qg = 30 nC)
- Low Effective Output Capacitance (Typ. Coss(eff.) = 277 pF)
- Optimized Capacitance
- Internal Gate Resistance: 7 ohm
- Typ. RDS(on) = 165 mΩ
- 100% Avalanche Tested
- RoHS Compliant

Benefits

- Higher system reliability at low temperature operation
- Lower switching loss
- Lower switching loss
- Lower peak Vds and lower Vgs oscillation
- Lower peak Vds and lower Vgs oscillation

Applications

- Computing
- Consumer
- Industrial

End Products

- Notebook / Desktop computer / Game console
- Telecom / Server
- LCD / LED TV
- LED Lighting / Ballast
- Adapter

Part Electrical Specifications

Product	Compliance	Status	Channel Polarity	Configuration	$V_{(BR)DSS}$ 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)	Package Type
FCPF190N65S3L1	Pb-free Halide free	Active	N-Channel	Single	650	30	4.5	14	33	-	-	190	-	30	1225	TO-220-3 FullPak

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

Created on: 3/1/2018