Product Overview

FCPF165N65S3R0L: Power MOSFET, N-Channel, SUPERFET® III, Easy Drive, 650 V, 19 A, 165 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 Easy drive series helps manage EMI issues and allows for easier design implementation.

Features

- 700 V @ TJ = 150 °C
- Low Effective Output Capacitance (Typ. Coss(eff.) = 345 pF)
- Ultra Low Gate Charge (Typ. Qg = 35 nC)
- Optimized Capacitance
- 100% Avalanche Tested
- RoHS Compliant
- Typ. RDS(on) = 140 mΩ
- Internal Gate Resistance: 0.5 Ω

Benefits

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

Applications

- Computing
- Consummer
- Industrial

End Products

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

Part Electrical Specifications

Product	Pricing ($/Unit)	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
FCPF165N65S3R0L	1.0211	Pb-free Halide free	Active	N-Channel	Single	650	30	4.5	19	35	-	-	165	-	35	1415	TO-220-3 FullPak

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

Created on: 4/9/2020