

Product Overview

FCPF099N65S3: N-Channel SuperFET® III MOSFET 650 V, 30 A, 99 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 @ $T_J = 150^\circ\text{C}$
- Ultra Low Gate Charge (Typ. $Q_g = 57\text{ nC}$)
- Low Effective Output Capacitance (Typ. $C_{oss}(\text{eff.}) = 517\text{ pF}$)
- Optimized Capacitance
- Typ. $R_{DS(\text{on})} = 85\text{ m}\Omega$
- 100% Avalanche Tested
- RoHS Compliant

Applications

- Computing
- Telecommunication
- Industrial

Benefits

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

End Products

- Telecom / Server
- Automation

Part Electrical Specifications

Product	Compliance	Status	Channel Polarity	Configuration	V_{BRD}^{SS} Min (V)	V_{GS} Max (V)	$V_{GS(\text{th})}$ Max (V)	I_D Max (A)	P_D Max (W)	$R_{DS(\text{on})}$ Max @ $V_{GS} = 2.5\text{ V}$ (mΩ)	$R_{DS(\text{on})}$ Max @ $V_{GS} = 4.5\text{ V}$ (mΩ)	$R_{DS(\text{on})}$ Max @ $V_{GS} = 10\text{ V}$ (mΩ)	Q_g Typ @ $V_{GS} = 4.5\text{ V}$ (nC)	Q_g Typ @ $V_{GS} = 10\text{ V}$ (nC)	C_{iss} Typ (pF)	Package Type
FCPF099N65S3	Pb-free Halide free	Active	N-Channel	Single	650	±30	4.5	30	43	-	-	99	-	57	2310	TO-220-3 FullPack

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

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