

Product Overview

FCU850N80Z: N-Channel SuperFET® II MOSFET 800 V, 6 A, 850 mΩ

For complete documentation, see the data sheet.

SuperFET® II MOSFET is Fairchild 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 technology is tailored to minimize conduction loss, provide superior switching performance, dv/dt rate and higher avalanche energy. In addition, internal gate-source ESD diode allows to withstand over 2kV HBM surge stress. Consequently, SuperFET II MOSFET is very suitable for the switching power applications such as Audio, Laptop adapter, Lighting, ATX power and industrial power applications.

Features

- Typ. $R_{DS(on)}$ = 710 mΩ (Typ.)
- Ultra Low Gate Charge (Typ. Q_g = 22 nC)
- Low E_{oss} (Typ. 2.3 uJ @ 400V)
- Low Effective Output Capacitance (Typ. $C_{oss(eff.)}$ = 106 pF)
- 100% Avalanche Tested
- RoHS Compliant
- ESD Improved Capability

Part Electrical Specifications

Product	Compliance	Status	Chan- nel Polar- ity	Confi- gura- tion	V_{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
FCU850N80Z	Pb-free Halide free	Active	N- Chan- nel	Singl- e	800	DC: ±20, AC: ±30	4.5	6	75	-	-	850	-	22	990	IPAK- 3/ DPA K-3 STR AIGH T LEAD

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

Created on: 3/1/2018