

FCP400N80Z

Power MOSFET, N-Channel, SUPERFET® II, 800 V, 14 A, 400 mΩ, TO-220

Product Overview

For complete documentation, see the data sheet.

SuperFET® II MOSFET is a 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. RDS(on) = 340 mΩ
- Ultra Low Gate Charge (Typ. Qg = 43 nC)
- Low Eoss (Typ. 4.1 uJ @ 400 V)
- Low Effective Output Capacitance (Typ. Coss(eff.) = 138 pF)
- 100% Avalanche Tested
- RoHS Compliant
- ESD Improved Capability

Applications

- AC-DC Power Supplies

End Products

- LED Lighting

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Channel Polarity	Configuration	V _{(BR)DS} Min (V)	V _{GS} Max (V)	V _{GS(t)} 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
FCP400N80Z	1.4943		Active	N-Channel	Single	800	DC: ±20 AC: ±30	4.5	14	195	-	-	400	-	43	1770	TO-220-3