



MJ N-Channel Super Trench II Power MOSFET

Description

The MJXP040N10GU uses Super Trench II technology that is uniquely optimized to provide the most efficient high frequency switching performance. Both conduction and switching power losses are minimized due to an extremely low combination of $R_{DS(ON)}$ and Q_g . This device is ideal for high-frequency switching and synchronous rectification.

General Features

- VDS=100V,ID=130A
 RDS(ON)=3.6mΩ (Typ.) @ VGS=10V
- Excellent gate charge x RDS(on) product(FOM)
- Very low on-resistance RDS(on)
- ◆ 150°C operating temperature
- Pb-free lead plating



Schematic Diagram

Application

- DC/DC Converter
- \blacklozenge Ideal for high-frequency switching and synchronous rectification





Bottom View

DFN 5X6

100% UIS TESTED! 100% AVds TESTED!

Package Marking and Ordering Information

Device Marking	Device	Device Package	Reel Size	Tape width	Quantity
P040N10GU	MJXP040N10GU	DFN5X6-8L	-	-	1

Absolute Maximum Ratings (Tc=25℃ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	Vds	100	V
Gate-Source Voltage	Vgs	±20	V
Drain Current-Continuous	lр	130	А
Drain Current-Continuous (Tc =100°C)	ID(100℃)	93.6	А
Pulsed Drain Current	Ідм	520	А
Maximum Power Dissipation	Po	160	W
Derating factor		1.28	W/°C
Single pulse avalanche energy (Note 5)	Eas	720	mJ
Operating Junction and Storage Temperature Range	Тј ,Тѕтс	-55 To 150	°C

Thermal Characteristic

Thermal Resistance, Junction-to-Case (Note 2)	Rejc	0.78	°C/W	
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