

*Torex...Powerfully Small!*

**100V, Nch MOSFET**

**XPJ101N04N8R-G / XPJ102N09N8R-G**

**Product Overview**

July 2024

TOREX Semiconductor Ltd.

Rev. 1.1

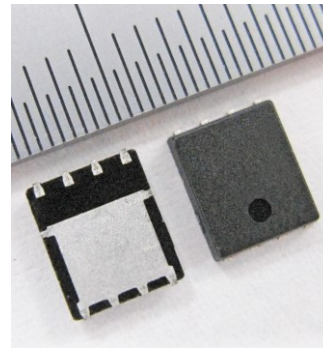
Small Package: DFN5060-8L / Low Ron(4.4mΩ) / Reduced losses through high-speed switching

## ■ Features

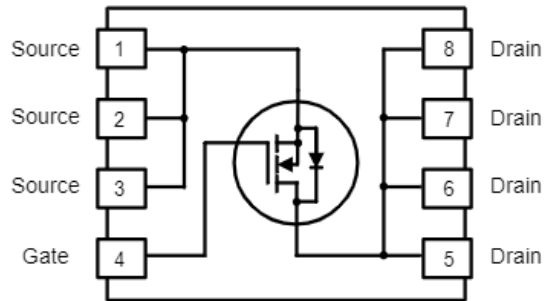
Drain-Source Voltage : 100V  
Gate-Source Voltage : ±20V  
Drain Current (DC) : 122A @Tc=25°C  
R<sub>DS(ON)</sub> (MAX.) : 4.4mΩ @ V<sub>GS</sub>=10V  
: 6.5mΩ @ V<sub>GS</sub>=6V  
Qg (TYP.) : 40.5nC  
Max. Junction Temperature : 150°C

## ■ Package

DFN5060-8L  
(4.9 x 6.0 x 1.1mm)



## ■ Equivalent Circuit



## ■ Product Name

PRODUCT NAME	PACKAGE	ORDER UNIT
XPJ101N04N8R-G	DFN5060-8L	6,000 pcs/ 2reel

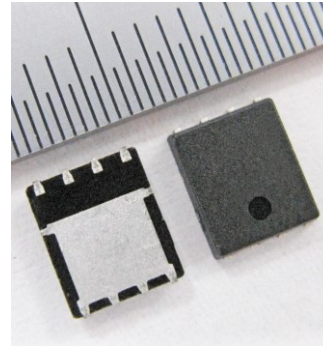
Small Package: DFN5060-8L / Low Ron(9.6mΩ) / Reduced losses through high-speed switching

## ■ Features

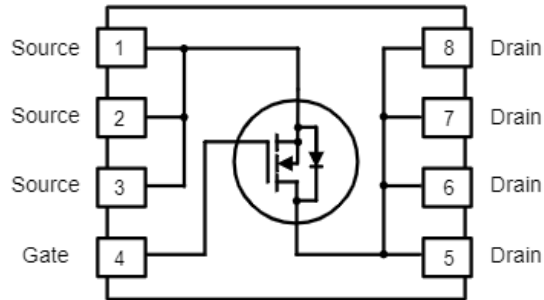
Drain-Source Voltage : 100V  
Gate-Source Voltage : ±20V  
Drain Current (DC) : 59A @Tc=25°C  
R<sub>DS(ON)</sub> (MAX.) : 9.4mΩ @ V<sub>GS</sub>=10V  
                                  : 15.6mΩ @ V<sub>GS</sub>=6V  
Qg (TYP.) : 19nC  
Max. Junction Temperature : 150°C

## ■ Package

DFN5060-8L  
(4.9 x 6.0 x 1.1mm)



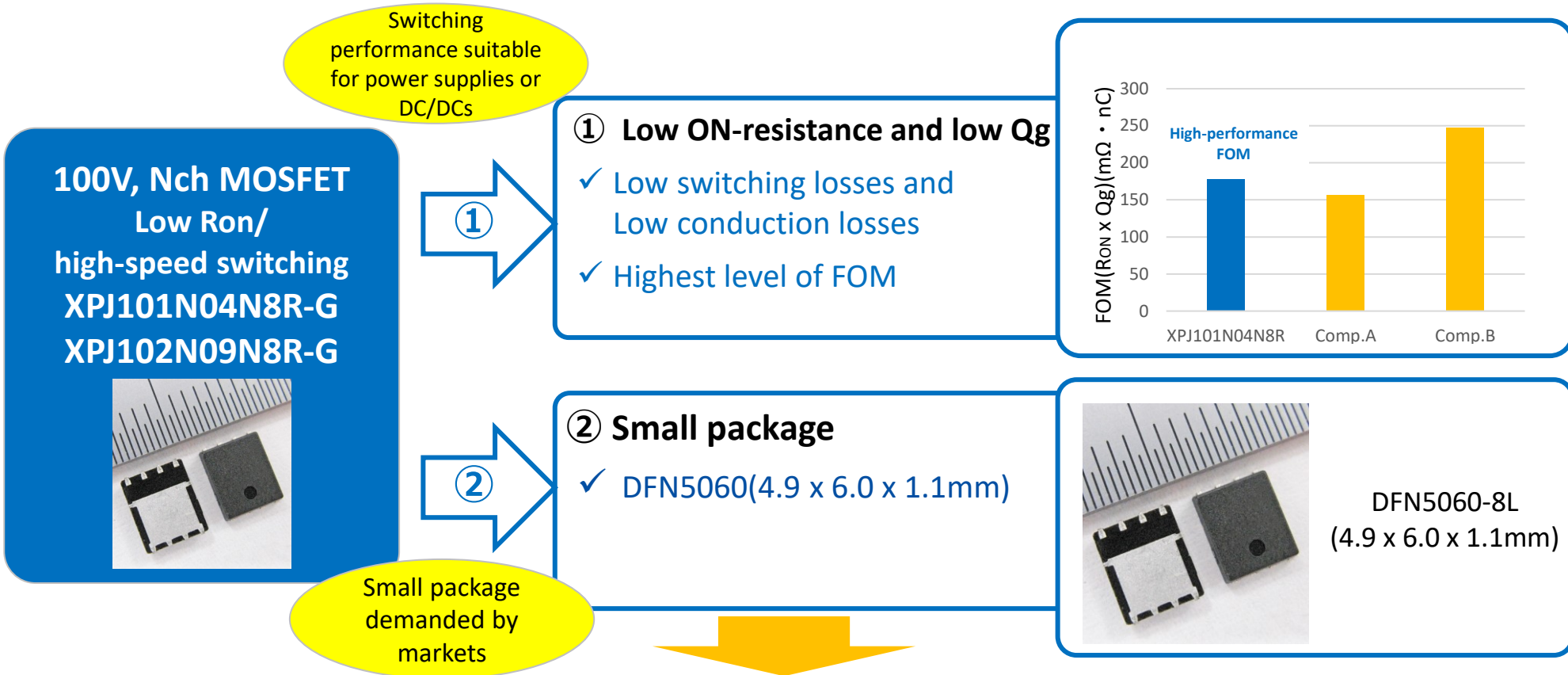
## ■ Equivalent Circuit



## ■ Product Name

PRODUCT NAME	PACKAGE	ORDER UNIT
XPJ102N09N8R-G	DFN5060-8L	6,000 pcs/ 2reel

- 100V Nch MOSEFET suitable for various power supplies such as DC/DC converters

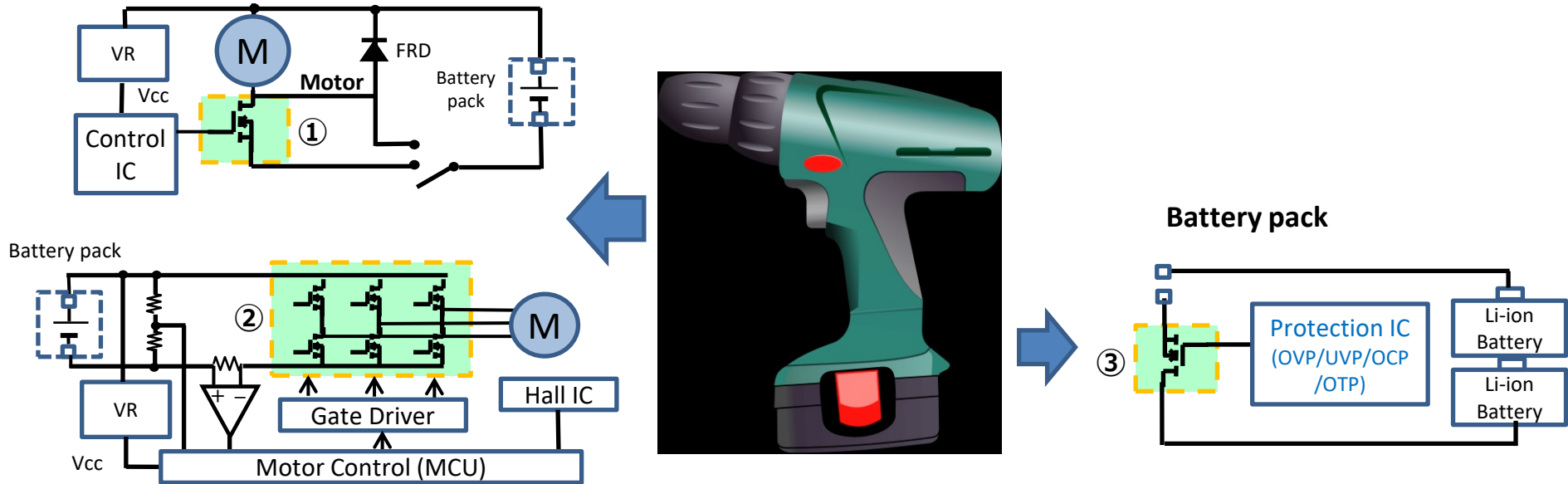


## 100V Nch MOSFET, mounted in a small DFN5060 package.

- Applications : Power supplies (secondary-side synchronous rectification), DC/DC converters  
DC motors and general- purpose inverters

## Switches and Motor Drives

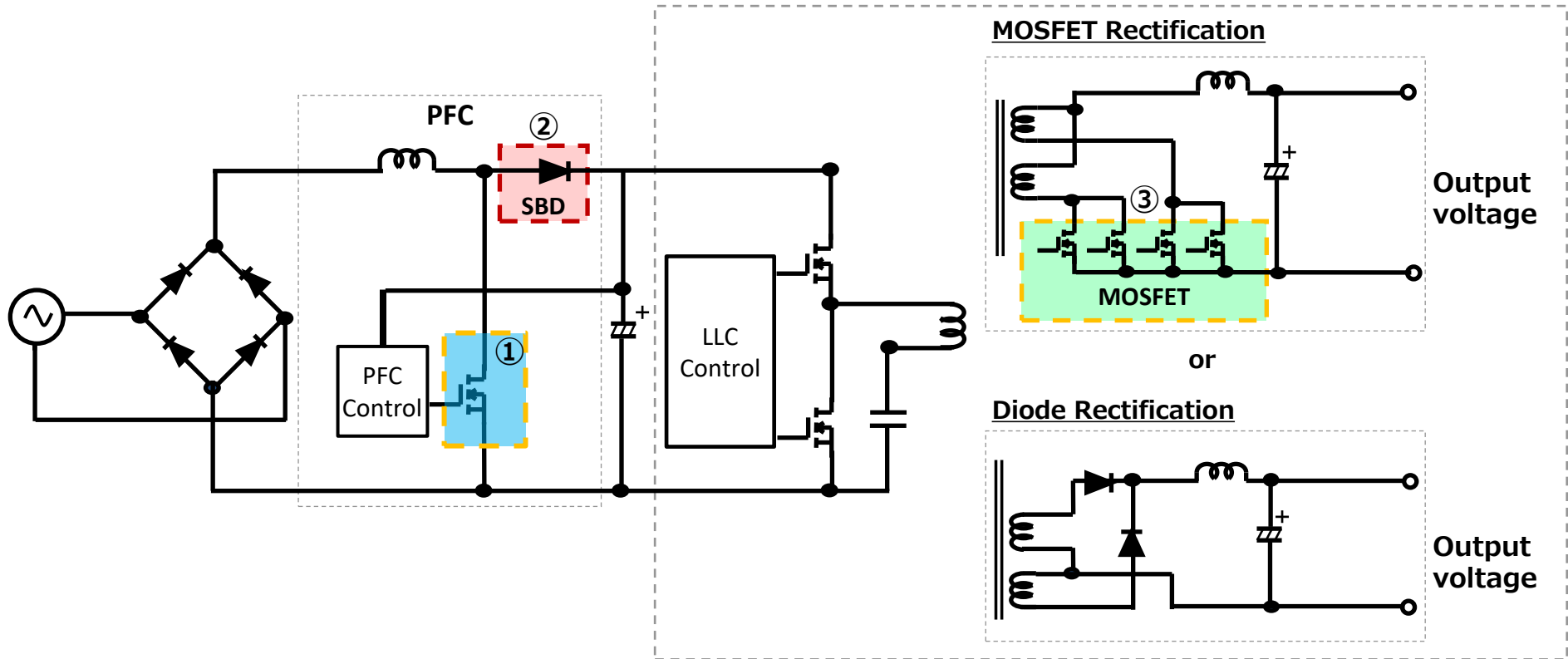
Mechanical switch + MOSFET



No.	Application	Product	Operating voltage
①	Speed control	MOSFET	60V/80V/100V
②	Motor Drive		60V/80V/100V/120V
③	Battery Protection		60V/80V/100V

# Application examples : Switching power supply (Synchronous rectification, Resonant method)

## Full-wave current resonant converter



No.	Application	Product	Operating voltage
①	PFC	MOSFET	650V
②		FRD/SBD	650V
③	Secondary synchronous rectification	MOSFET	60V/80V