Product Overview

NCP81080: High Side and Low Side Gate Driver, High-Frequency, 180V offering 0.5A source/0.8A capability

For complete documentation, see the data sheet.

The NCP81080 is a high performance dual mosfet (high side and low side) gate-drive IC designed for driving MOSFETs operating up to 180 V. The NCP81080 integrates a driver IC and a bootstrap diode and offers 0.5A source/0.8A sink driving capability. Anti-cross conduction circuit is integrated to prevent shoot through issues. The high side and low side drivers are independently controlled.

This driver is ideally suited for use in high voltage buck and motor control applications.

The part is offered in a SO8 and 8 pin 2mm by 2mm DFN package and fully specified from -40C to 140C.

Features

- Drives two N-Channel MOSFETs in High & Low Side
- Integrated Bootstrap Diode for High Side Gate Drive
- Bootstrap Supply Voltage Range up to 180V
- 0.5A Source, 0.8A Sink Output Current Capability
- Drives 1nF Load with Typical Rise/Fall Times of 19ns/17 ns
- Wide Supply Voltage Range 5.5V to 20V
- 2 ns Delay Matching (Typical)
- Under-Voltage Lockout (UVLO) Protection for Drive Voltage
- Operating Junction Temperature Range of -40°C to 140°C

Applications

- Buck converter
- isolated power supplies
- Class D audio amplifier
- Two switch and Active Clamp Forward Converters
- Motors

Part Electrical Specifications

Product	Compliance	Status	Type	Number of Drivers	V_{in} Max (V)	V_{CC} Max (V)	Drive Source/Sink Typ (mA)	Rise Time (ns)	Fall Time (ns)	t_p Max (ns)	Package Type
NCP81080DR2G	Pb-free Halide free	Active	-	2	180	20	500 / 800	19	17	-	SOIC-8
NCP81080MNTBG	Pb-free Halide free	Active	-	2	180	20	500 / 800	19	17	-	DFN-8

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

Created on: 3/1/2018