

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	Pricing (\$/Unit)	Compliance	Status	Power Switch	Number of Outputs	Topology	Isolation Type	V _{in} Max (V)	V _{cc} Max (V)	Rise Time (ns)	Fall Time (ns)	Drive Source Current Typ (A)	Drive Sink Current Typ (A)	Turn On Prop. Delay Typ (ns)	Turn Off Prop. Delay Typ (ns)	Delay Matching	Package Type
NCP81080DR2G	0.3837	Pb-free Halide free non AEC-Q and PPAP	Active	MOSFET	2	High-Low	Junction Isolation	180	20	19	17	0.5	0.8	44	30	10	SOIC-8
NCP81080MNTBG	0.44	Pb-free Halide free non AEC-Q and PPAP	Active	MOSFET	2	High-Low	Junction Isolation	180	20	19	17	0.5	0.8	44	30	10	DFN-8

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

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