

1 Features

- Typical 5-A peak source and sink drive current for each channel
- Input and enable pins capable of handling -10 V
- Wide VDD operating range from 4.5 V to 30 V with UVLO
- Two independent gate drive channels
- Independent enable function for each output
- Hysteretic-logic thresholds for high noise immunity
- Fast propagation delay (20-ns typical)
- TTL and CMOS Compatible Inputs
- UVLO and over-temperature protection
- SOP8 and VSSOP8 package options

2 Applications

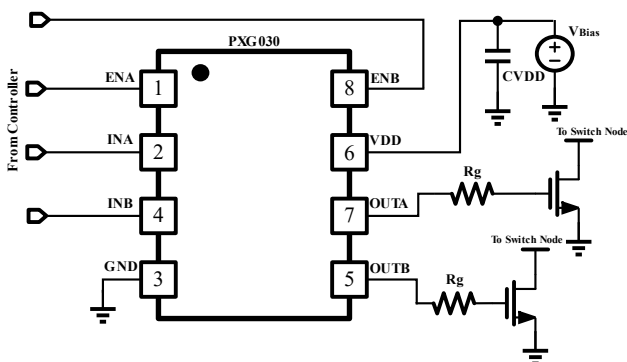
- Switched-mode power supplies (SMPS)
- Power factor correction (PFC) circuits
- DC/DC converter
- Motor drives
- Pulse transformer driver
- Solar power supplies

3 Description

The PXG030/R is a dual-channel, high-speed, low-side gate driver that effectively drives MOSFET, IGBT, SiC, and GaN power switches. PXG030/R has a typical peak drive strength of 5-A, which reduces rise and fall times of the power switches, lowers switching losses, and increases efficiency. The device's fast propagation delay (20-ns typical) yields better power stage efficiency by improving the deadtime optimization, pulse width utilization, control loop response, and transient performance of the system. PXG030/R can handle -10 V at its inputs, which improves robustness in systems with moderate ground bouncing. The inputs are independent of supply voltage and can be connected to most controller outputs for maximum control flexibility. An independent enable signal allows the power stage to be controlled independently of main control logic. In the event of a system fault, the gate driver can quickly shut-off by pulling enable low.

The PXG030/R also features undervoltage lockout (UVLO) for improved system robustness. The driver features undervoltage lockout (UVLO) and over-temperature protection (OTP) to ensure the device is not damaged in overload or fault conditions.

Typical (Simplified) System Diagram



Simplified Application Diagram

Order Information

Name	Package	Size
PXG030	SOP8	4.90mm*3.91mm
PXG030	VSSOP8	3.00mm*3.00mm
PXG030R	SOP8	4.90mm*3.91mm
PXG030R	VSSOP8	3.00mm*3.00mm