



Product brief

EiceDRIVER™ 2EDL81 product family

Half-bridge gate-driver ICs with integrated 120 V bootstrap diode

Overview

The EiceDRIVER™ 2EDL81 family of dual-channel junction-isolated gate-driver ICs is designed for medium-voltage power MOSFETs in half-bridge applications such as Telecom and Datacom DC-DC converters, low voltage drives, and solar. The device takes in differential input with built-in hysteresis for enhanced noise immunity, and with the inherent shoot-through protection, ensures the robustness of the system. The propagation delay of 47 ns and maximum delay of 4 ns matching ensure the energy balance in the system.

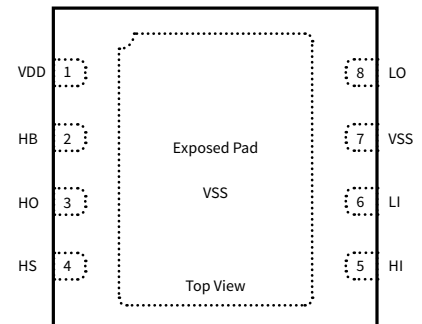
The EiceDRIVER™ 2EDL81 is optimized to minimize power MOSFET switching losses and concurrently maximize switching noise immunity thanks to:

- > Up to 4 A source and up to 6 A sink current
- > Integrated 120 V bootstrap diode
- > Truly differential control inputs
- > Excellent timing accuracy

Key applications

- > Telecom and datacom DC-DC converter
- > Low-voltage motor drives
- > Multicopter
- > Robotics
- > Solar microinverter

Device pinout



Key features

- > 2 A to 4 A output source currents
- > 120 V integrated boot-strap diode with 10 ns reverse recovery time
- > 47 ns input-to-output propagation delay, w/o 30 ns constant pulse extension
- > +/- 1 ns (typ.) channel-to-channel delay matching
- > 2 A to 6 A output sink currents
- > - 8 V / + 15 V differential input robustness
- > 5 A reverse current output robustness

Product benefits

- > Drive strength for fast Miller Plateau transition
- > Fast and robust
- > Fast and accurate
- > Immunity against false triggering from ground bounce
- > No need for Schottky clamping diodes

System benefits

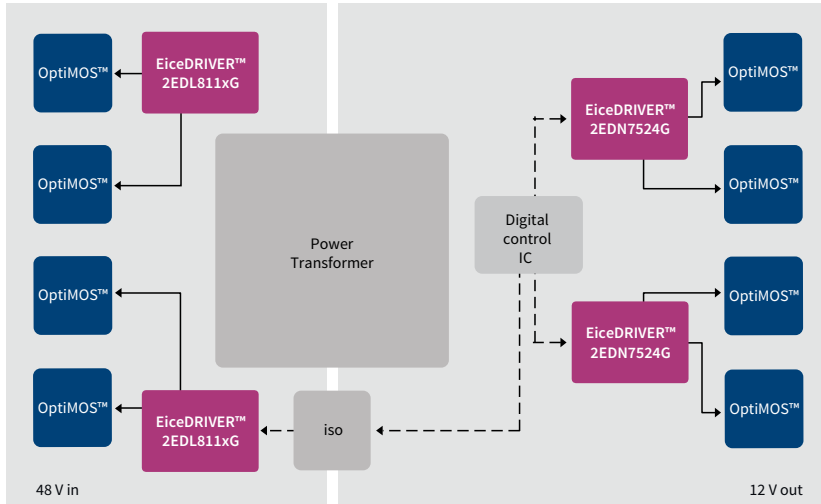
- > Optimized for power MOSFET switching efficiency
- > Extending end-product lifetime by improving safe operation of power switches in normal and abnormal operating conditions
- > High power density BoM savings



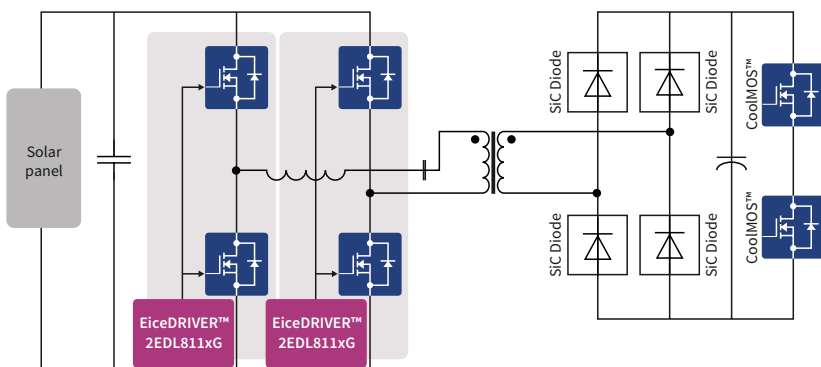
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Half-bridge gate-driver ICs with integrated 120 V bootstrap diode

Telecom and datacom DC-DC converter



Solar microinverter



Product portfolio

Type	SA number	Packages	High-side outputs		Low-side outputs		Typ. propagation delay	Typ. ch-2-ch prop. delay accuracy	V _{DD} UVLO	Abs. max. limits	
			Source	Sink	Source	Sink				High-side bootstrap voltage	Min. input control voltage
2EDL8112G	SA002373816	VDSON-8	2 A _{peak}	4 A _{peak}	2 A _{peak}	6 A _{peak}	47 ns	1 ns	7.0 V	120 V	-10 V
2EDL8113G	SA002373818	VDSON-8	3 A _{peak}	4 A _{peak}	3 A _{peak}	6 A _{peak}	47 ns	1 ns	7.0 V	120 V	-10 V
2EDL8114G	SA002373820	VDSON-8	4 A _{peak}	4 A _{peak}	4 A _{peak}	6 A _{peak}	47 ns	1 ns	7.0 V	120 V	-10 V

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