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 bootstrap diode with 10 ns reverse recovery time
- 47 ns input-to-output propagation delay, +/- 30 ns constant pulse extension
- 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

www.infineon.com/2edl
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Product portfolio

<table>
<thead>
<tr>
<th>Type</th>
<th>SA number</th>
<th>Packages</th>
<th>High-side outputs</th>
<th>Low-side outputs</th>
<th>Typ. propagation delay</th>
<th>Typ. ch-2-ch prop. delay accuracy</th>
<th>Abs. max. limits</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Source</td>
<td>Sink</td>
<td>Source</td>
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<tr>
<td>2EDL8112G</td>
<td>SA002373816</td>
<td>VDSON-8</td>
<td>2 Apeak</td>
<td>4 Apeak</td>
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<td>6 Apeak</td>
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<td>VDSON-8</td>
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