

Product brief

EiceDRIVER™ 1EDB family

Single-channel isolated gate driver ICs in 150 mil DSO package

The EiceDRIVER™ 1EDB family of single-channel gate driver ICs provides an input-to-output isolation of $3 \text{ kV}_{\text{rms}}$ (UL1577 certification).

With $\pm 4 \text{ ns}$ propagation delay accuracy the gate driver family is optimized for fast-switching applications with high system-level efficiencies. To support functionally safe system operation the common-mode transient immunity (CMTI) exceeds 300 V/ns , the typical output stage clamping speed is as short as 20 ns , and designers can choose between four different output-stage undervoltage lock-out (UVLO) variants: 4 V , 7 V , 12 V and 14 V .

The 1EDB gate driver family is available in 8-pin DSO packages. The industry-standard pinout has separate source and sink output pins to ease application designs. Single-channel isolated gate driver ICs solve PCB-layout problems in high-power factor controllers (PFC) and high-voltage DCDC stages. Applications also include multi-level topologies and use-cases with up to $557 \text{ V}_{\text{rms}}$ working voltage (pollution class II).

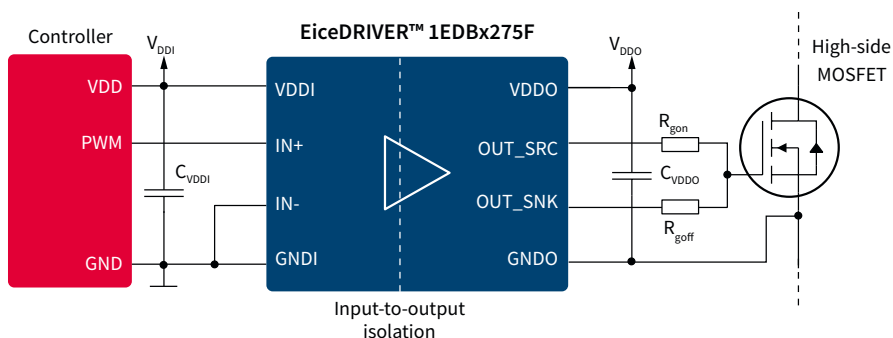
Key features

- > $3 \text{ kV}_{\text{rms}}$ galvanic isolation, UL 1577 certification
- > $> 300 \text{ V/ns}$ CMTI
- > Output impedance
 - 0.95Ω (typ.) sourcing
 - 0.48Ω (typ.) sinking
- > $\pm 4 \text{ ns}$ propagation delay accuracy
- > 20 ns (typ.) output clamping speed
- > 4 UVLO options:
 - 4 V , 7 V , 12 V , 14 V

Key benefits

- > Low MOSFET switching-losses
- > Low dead time losses
- > Ground loop separation
- > Excellent immunity against switching noise
- > Reduced risk of leaving the safe operation area (SOA)
- > Shoot-through protection during boot-strapped half-bridge start-up

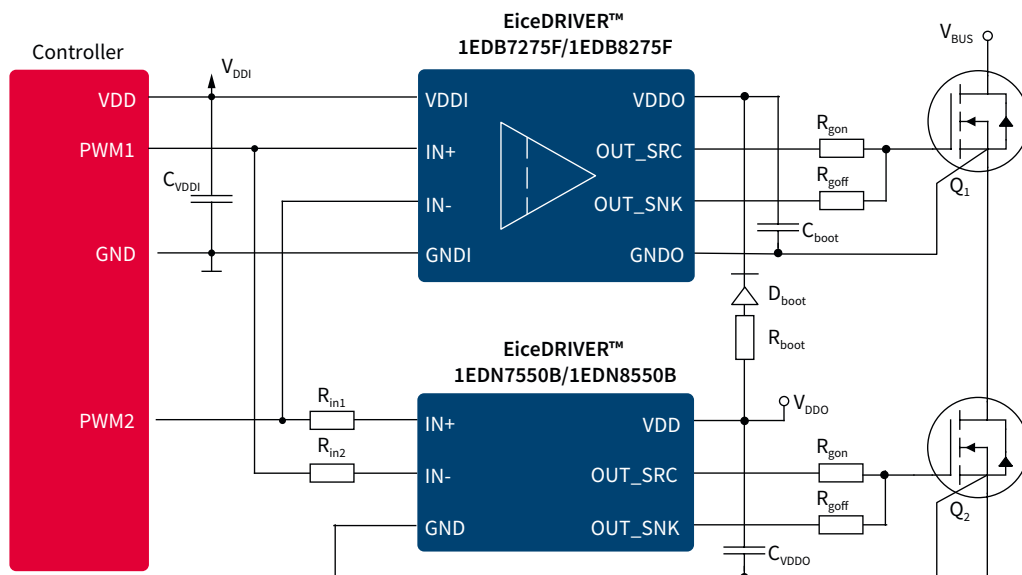
Galvanically isolated MOSFET driving



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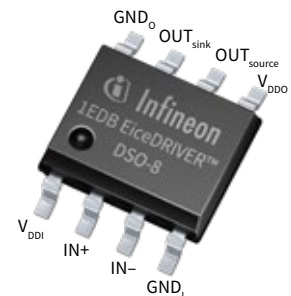
Hybrid half-bridge driving



Product portfolio

Part number	Package	UVLO_off typ.	OPN
1EDB6275F*	8-pin 150 mil DSO	11.5 V	1EDB6275FXUMA1
1EDB7275F	8-pin 150 mil DSO	3.9 V	1EDB7275FXUMA1
1EDB8275F	8-pin 150 mil DSO	7.0 V	1EDB8275FXUMA1
1EDB9275F*	8-pin 150 mil DSO	14.4 V	1EDB9275FXUMA1

*Coming soon



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