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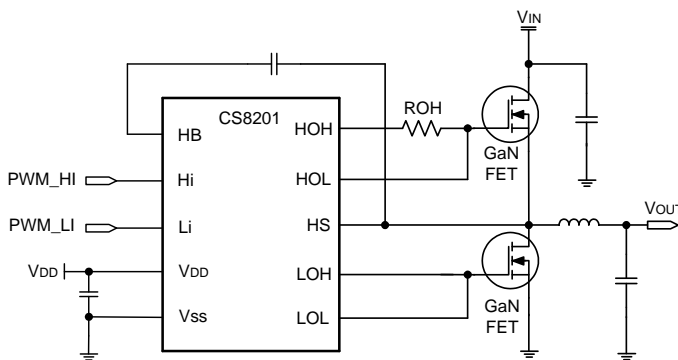
## CS8201 User Guide

### CS8201 - 80V Half Bridge GaN Driver IC

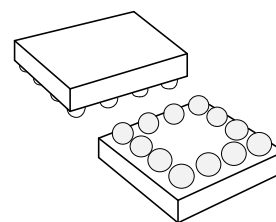
#### Features:

- ◆ High-Side Floating Bias Voltage Rail Operates up to 80VDC.
- ◆ Independent High-Side and Low-Side TTL Logic Inputs , operate up to several MHz.
- ◆ Split Outputs for Adjustable Turn-on/Turn-off Strength.
- ◆ Fast Propagation Delay Times ( 35 ns Typical ).
- ◆ Excellent Propagation Delay Matching ( 1.5 ns Typical ).
- ◆ Built-in bootstrap supply voltage clamping circuit, the clamping voltage is 5 V.
- ◆ Supply Rail Under-Voltage Lockout (UVLO).
- ◆ Low Power Consumption (2mA).

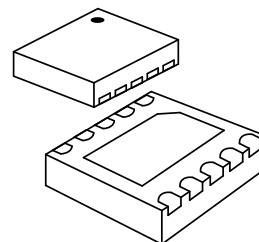
- (1) CS8201 Designed to drive both the high-side and the low-side GaN FETs in a synchronous buck, boost, half bridge or full bridge configuration.
- (2) The high-side bias voltage is generated using a built-in bootstrap technology circuit with a clamping voltage of 5 V, which prevents damage caused by the gate voltage exceeding the gate-source maximum voltage rating of the GaN FET.
- (3) The high-side (HOH) output resistor (ROH) is recommended to use 30Ω or above, please refer to the following application circuit and adjust according to the type of GaN FET and related specifications in the actual application.
- (4) Miniaturized package and very small package inductance technology , Two package types are available :
  1. CS8201M (12 balls CSP 1.86x1.93x0.6mm)
  2. CS8201Z (10 pins DFN 3x3x0.75mm)
- (5) CS8201 Can be used with GaN FET products driven by applications, such as: EPC2045, EPC2218(EPC), INN100W032A {INNOSCIENCE)..etc.



Application circuit



CSP(1.86x1.93x0.6mm)



DFN(3x3x0.75mm)