# Ideal Diode Controller with Reverse-Current Protection

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**Typical Application**

  

$I_{Q\_Charge\ On}$ MAX and MIN

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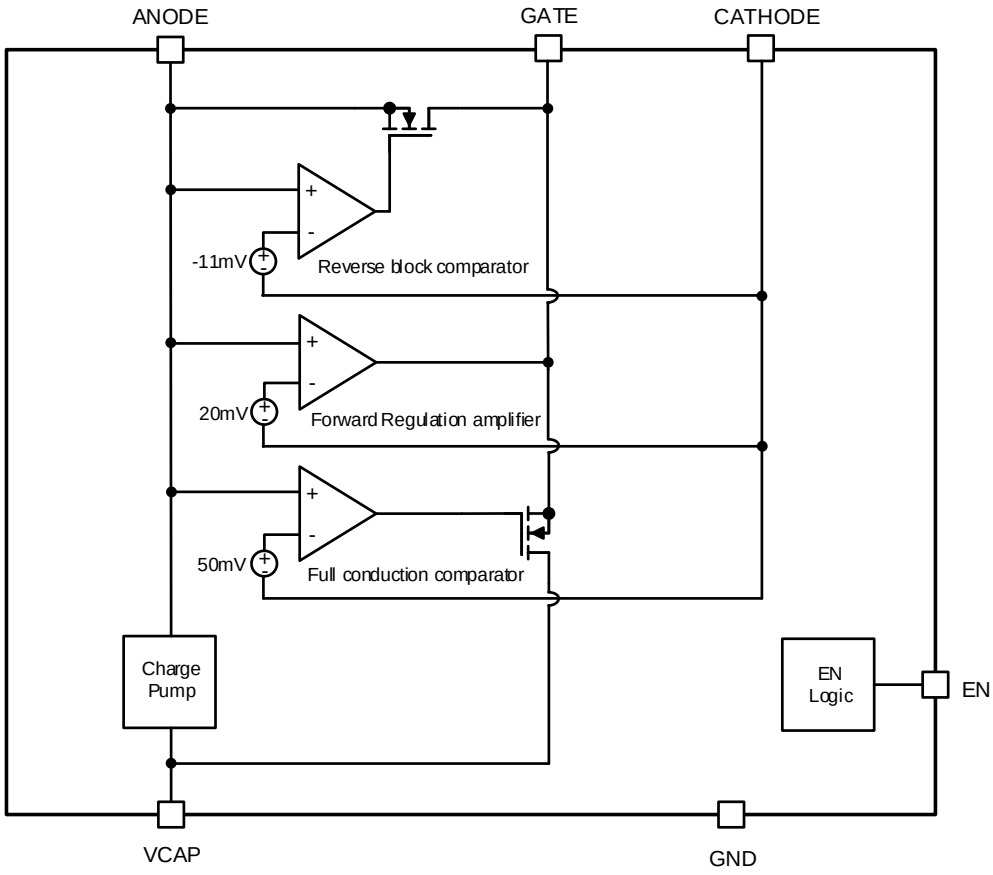
|---|---|---|---|---|
| $V_{(ANODE)}$ | | | | |
| $V_{(ANODE\ POR)}$ | VANODE POR Rising threshold<br>VANODE POR Falling threshold | | | |
| $I_{SHDN}$ | | $V_{EN}$= 0V | | |
| $I_{Q\_Charge\ Off}$ | | | | |
| $I_{Q\_Charge\ On}$ | | | | |

**ENABLE**

| | | | | |
|---|---|---|---|---|
| $V_{EN\_H}$ | Enable input high threshold | | | |
| $V_{EN\_L}$ | Enable input low threshold | | | |
| $V_{EN\_HYS}$ | Enable Hysteresis | | | |



## Overview

polarity protection circuit or be used in a . This easy to use ideal diode controller operates in conjunction with an external N-channel MOSFET to replace other reverse polarity schemes such as a P-channel MOSFET or a Schottky diode.

## Input Voltage

## Enable

## Charge Pump

## Gate Driver and Conduction Mode

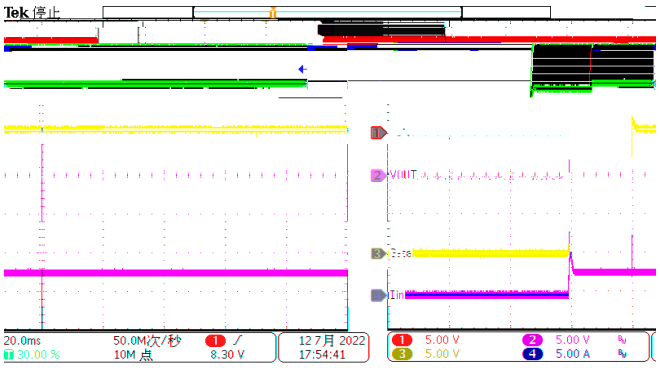
  

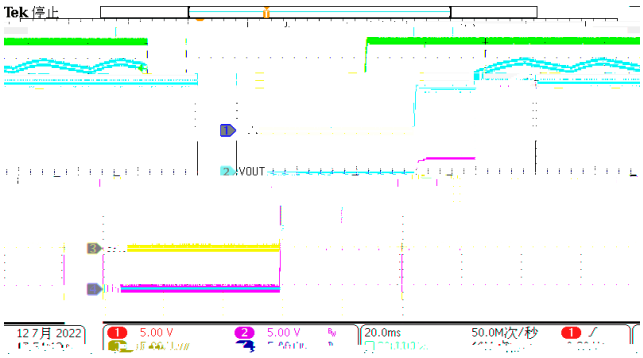
 

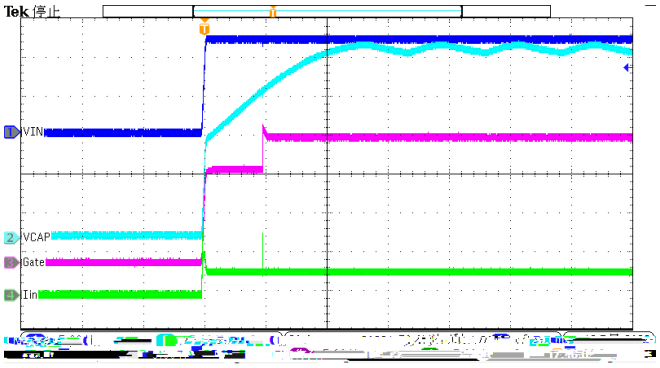
  

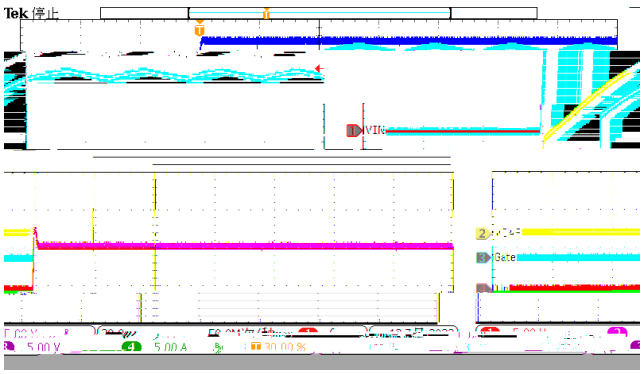
maximum continuous drain current $I_D$,
maximum source current through body diode,

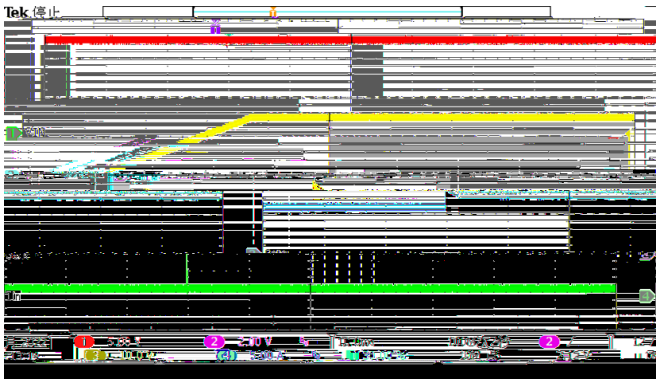
 

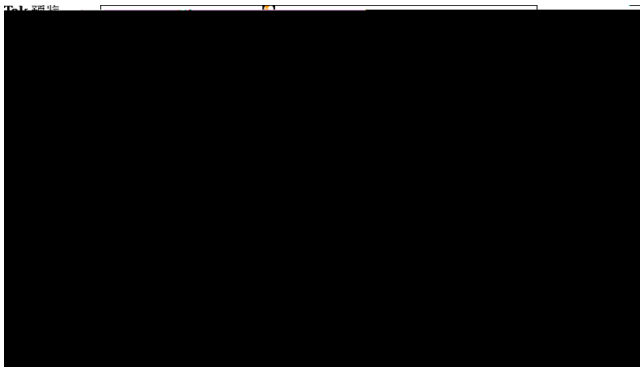


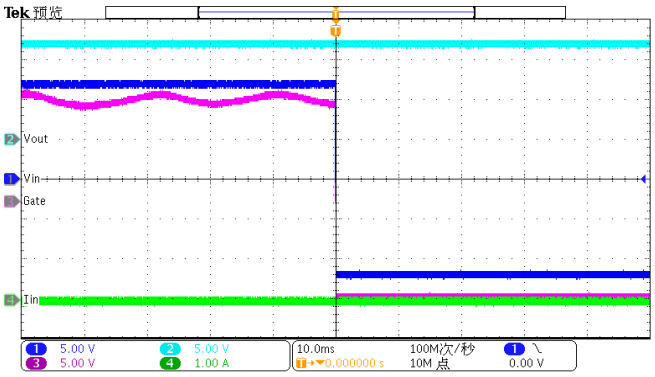



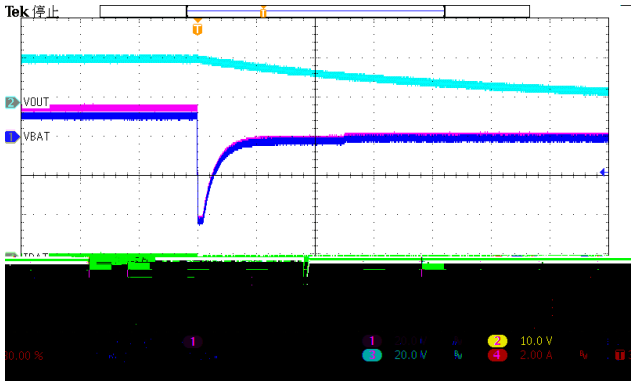



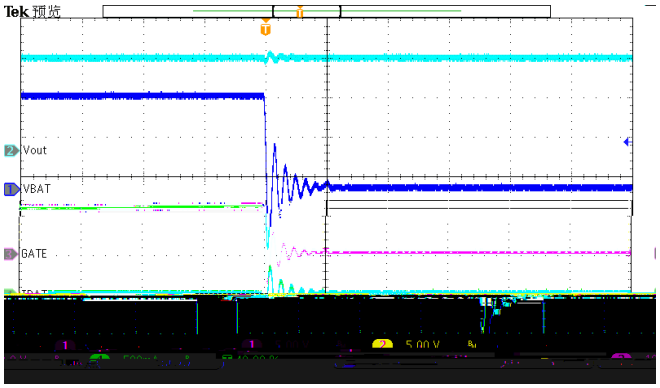



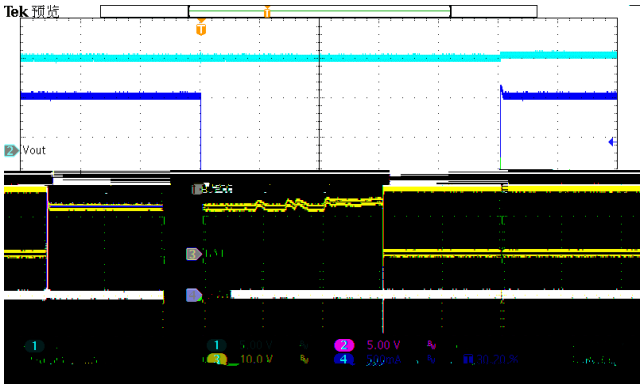



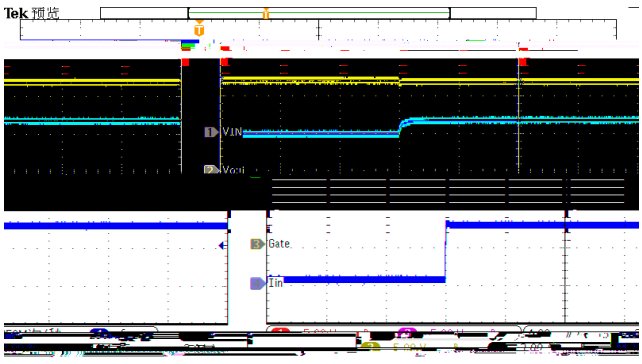
  

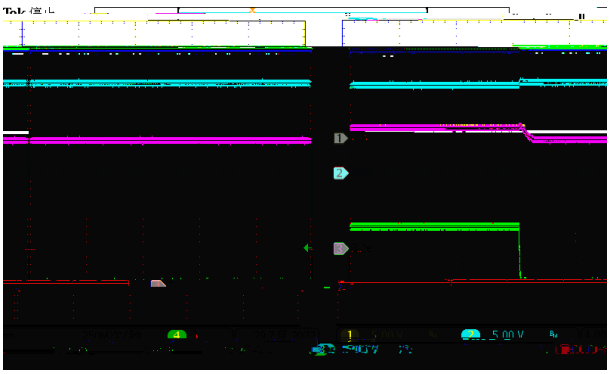


**Typical Application- Redundant Power**