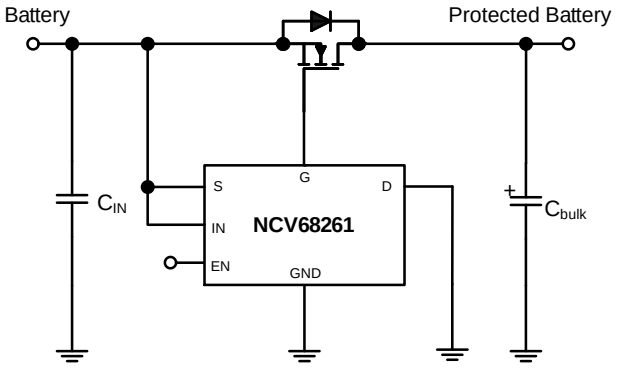


Figure 3. NCV68261 Application Schematic (Reverse Polarity Protection)

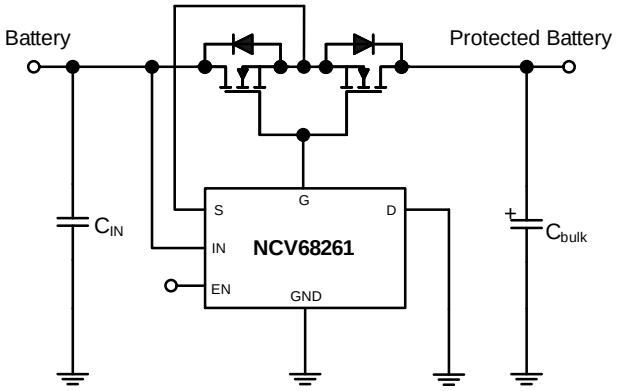


Figure 4. NCV68261 Application Schematic (Reverse Polarity Protection + High Side Switch)

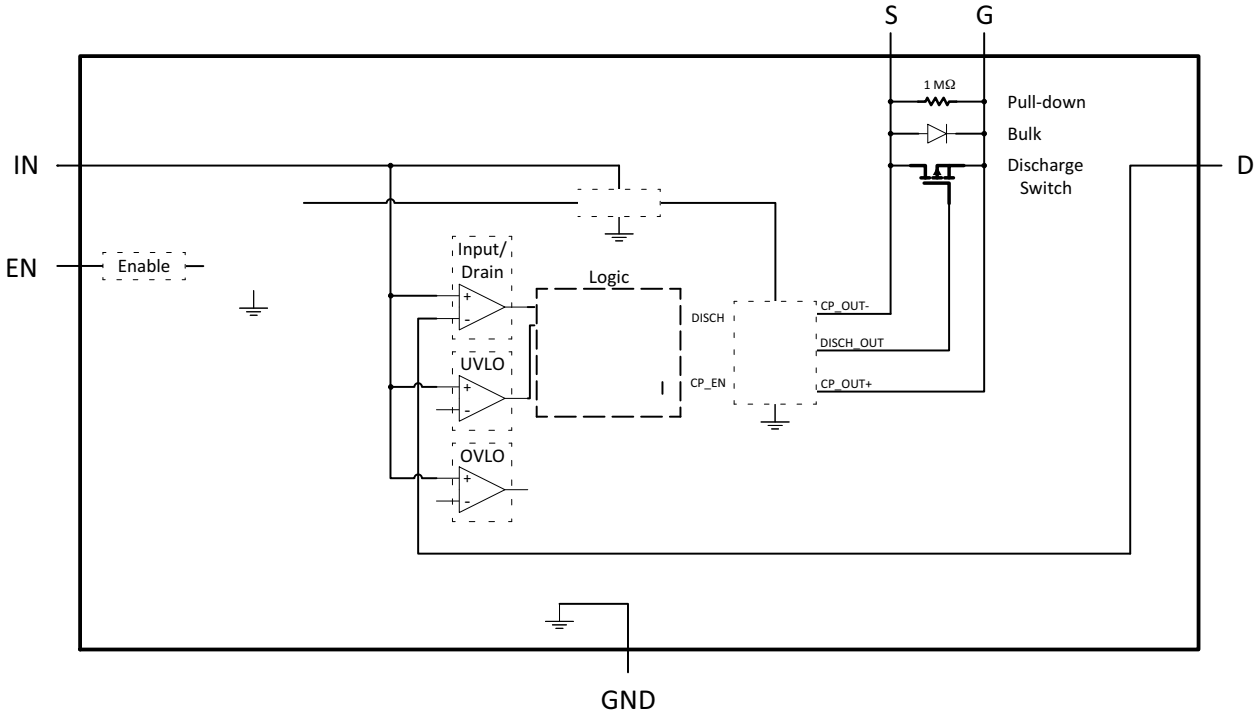
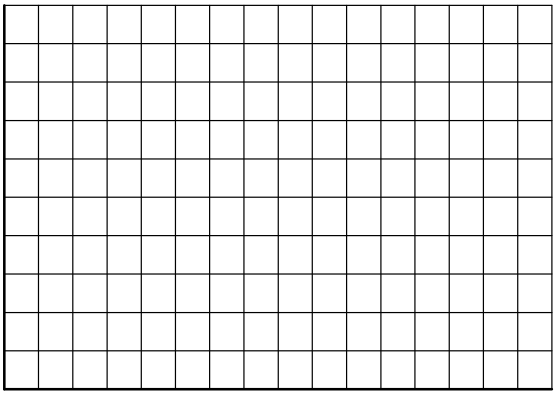


Figure 5. NCV68261 Block Diagram

TYPICAL CHARACTERISTICS



V_{IN}

Figure 6. Gate−to−Source Charged Voltage vs. Input Voltage

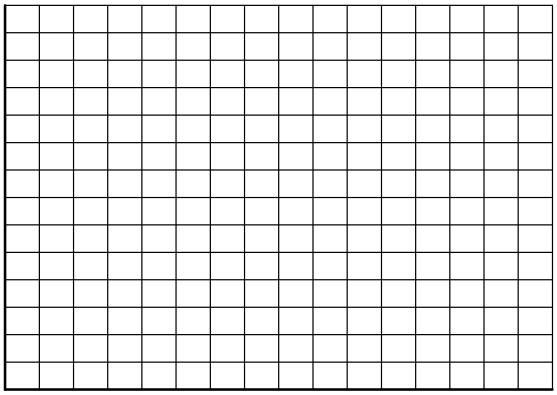
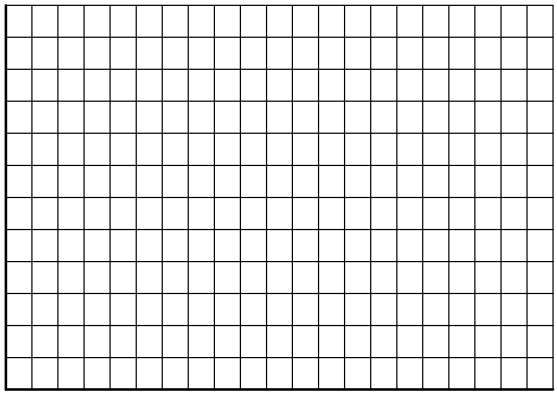
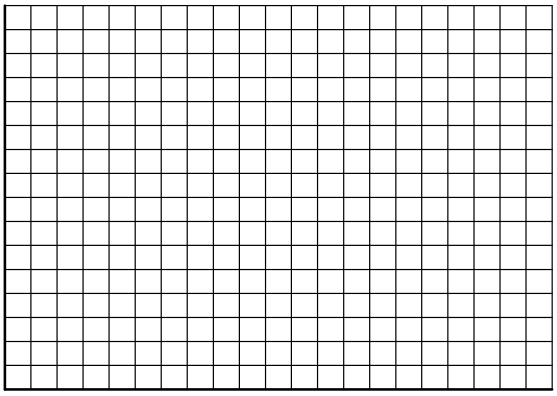
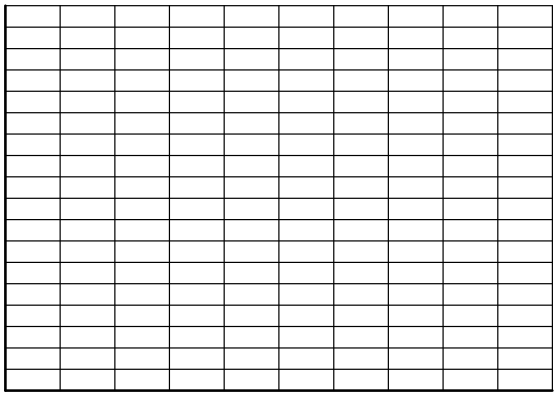
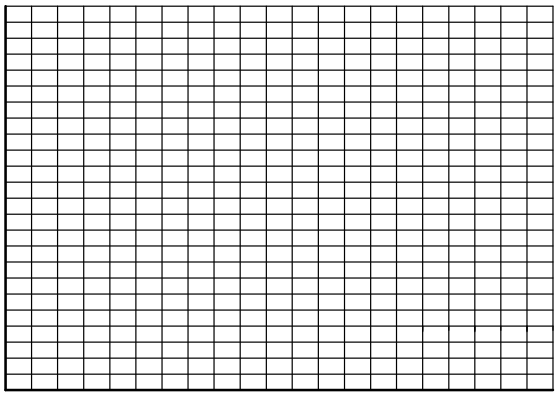


Figure 7. Gate Charge Current vs. Input Voltage









TYPICAL CHARACTERISTICS

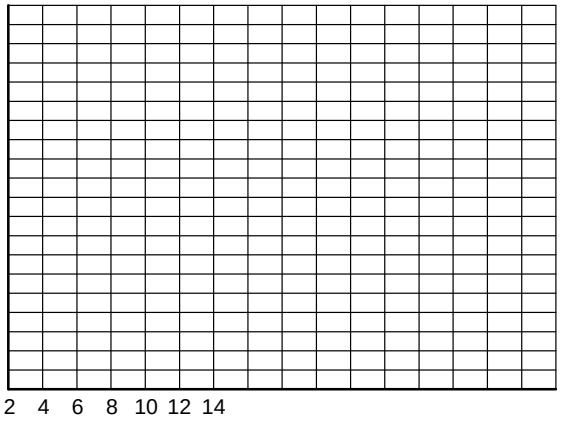


Figure 12. Quiescent Current vs. Input Voltage

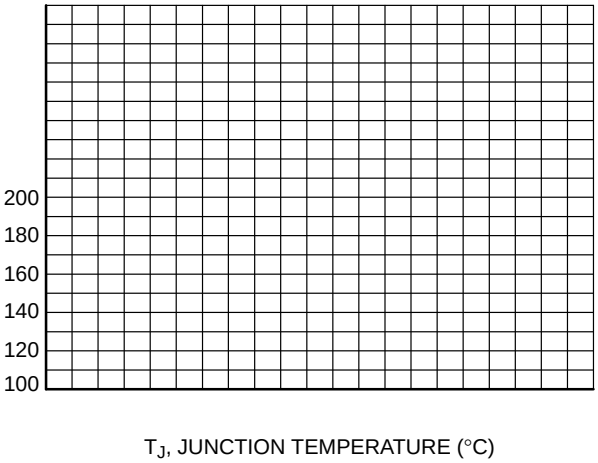
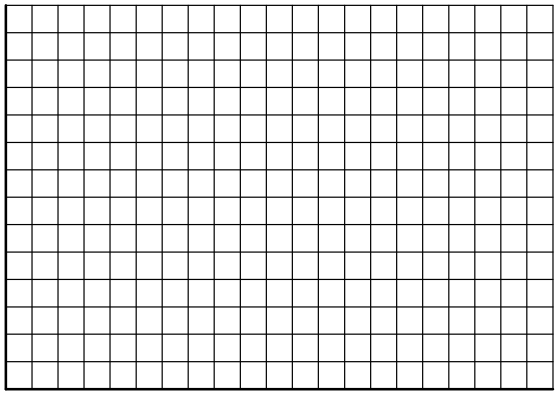
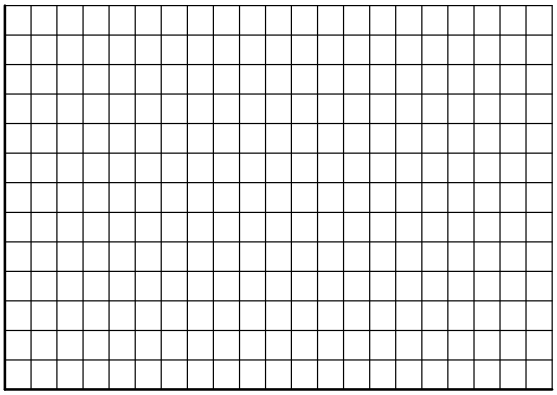
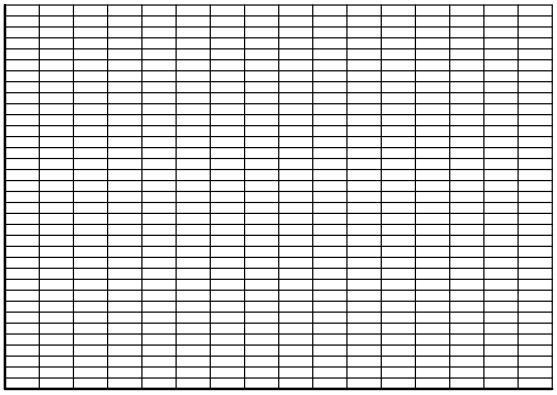
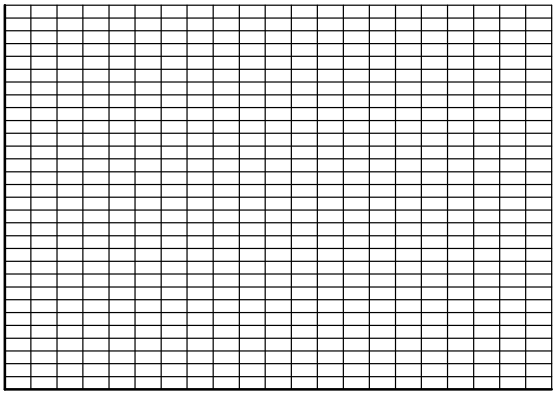


Figure 13. Quiescent Current vs. Temperature

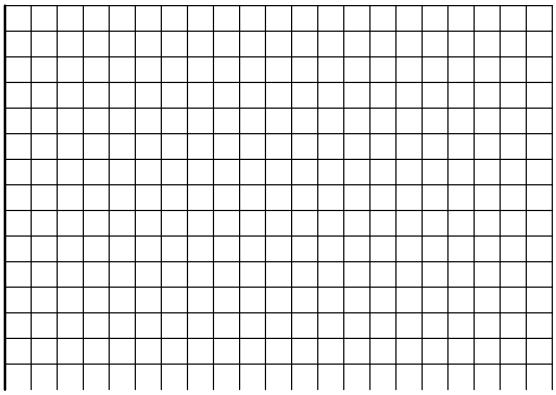








TYPICAL CHARACTERISTICS



TYPICAL CHARACTERISTICS

Table 8. ISO 7637−2: 2011(E) PULSE TEST RESULTS

ISO 7637−2:2011(E) Test Pulse

APPLICATION INFORMATION

INTEGRATED CIRCUIT AND BLOCK DIAGRAM DESCRIPTION

Integrated Circuit Description

Enable

Operation

–

OFF state

–

–

Ω

ON state

Ideal Diode

Reverse Polarity Protection

Ideal Diode + High Side Switch

Reverse Polarity Protection + High Side Switch

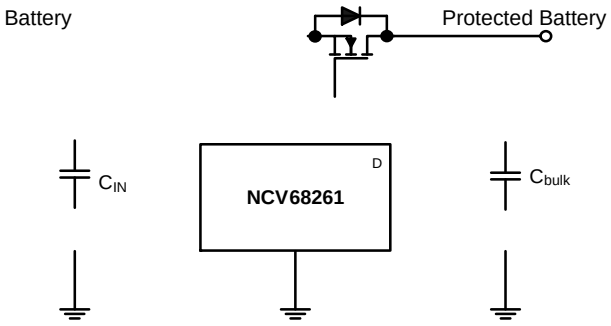


Figure 22. Ideal Diode

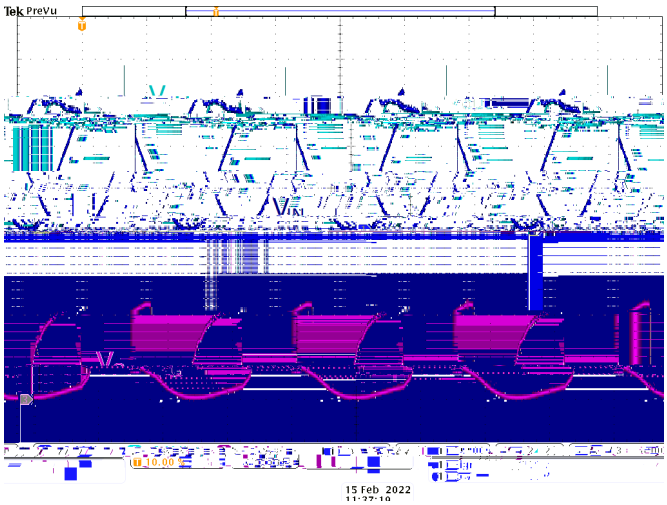


Figure 26. Application Response to 13 V + 6 V_{pp} Sine Wave on the Input (V_{IN}) – Ideal Diode + High Side Switch Application (see Figure 23)

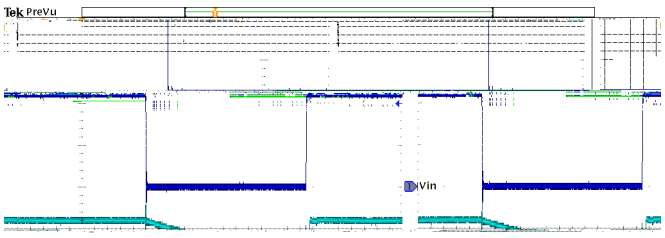


Figure 27. Application Response to 11 V to 0 V Transient on the Input (V_{IN}) − Ideal Diode + High Side Switch Application (see Figure 23)

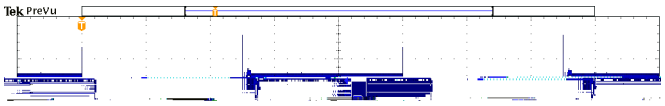


Figure 28. Application response to 11 V to −18 V transient on the Input (V_{IN}) – Reverse Polarity Protection + High Side Switch Application (see Figure 25)

C

Table 11. RECOMMENDED COMPONENTS FOR OPTIMAL EMC PERFORMANCE (Note 7)

C_{IN} (µF)	C_{bulk} (µF)	C_G (nF)	R_S (Ω)	R_{G_Q1} (Ω)
0.1	1	1	10	10
0.1	10			
4.7	10			
10	101010			

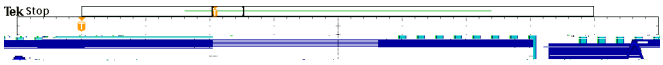


Figure 32. Startup with EN − C_G = 1 nF Inrush Current Reduction

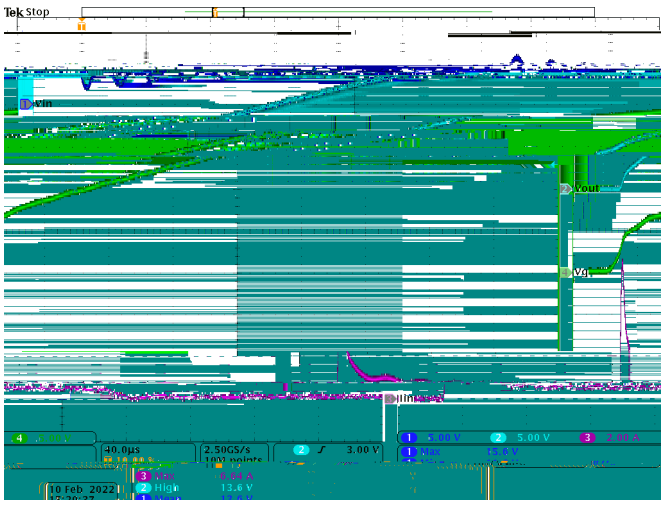


Figure 33. Startup with EN − C_G = 4.7 nF Inrush Current Reduction

Thermal Considerations

WDFNW6 2x2, 0.65P