



## CX2951C/USB Type-C PD Controller with Integrated Power Switch

### FEATURES

- **USB Type-C 1.4 and USB PD3.0 compliant**
  - Support 5V, 9V and 12V FPDOS
  - Support 5V Prog and 9V Prog APDOs
- **Support BC1.2 DCP and HVDCP protocols**
  - BC 1.2 DCP mode
  - Divider 3 mode
  - QC2.0/3.0 Class A
  - AFC
  - FCP and SCP
- **Support Constant Voltage Loop (CV) and Constant Current Loop (CC) Operation**
- **Compatible with Opto-Coupler and Direct Feedback Configurations**
- **Integrated N-MOSFET with Softstart**
- **Integrated VIN OVP, VIN UVP, VIN UVLO, OCP, SCP and OTP protections**
- **9-Lead Panel Level DFN and Flip Chip DFN (3mm × 3mm) Package Available**
- **±2kV HBM ESD Rating for USB IO pins**

### APPLICATIONS

- AC-DC power adapter
- Car charger

### GENERAL DESCRIPTION

The CX2951C is designed for a low power Type-C product. The CX2951C supports PD2.0, PD3.0, PPS, QC2.0/3.0, Divider 3, BC1.2 DCP, AFC, FCP and SCP protocols. It supports 5V, 9V and 12V three FPDOS and 5V Prog, 9V Prog two APDOs which are fully compliant with USB Power Delivery Specification Revision 3.0, version 2.0.

The CX2951C integrates the VBUS power switch and current sensing resistor to save board space and BOM cost.

The CX2951C integrates all required protections such as Over Voltage Protection (OVP), Under Voltage Protection (UVP), Under Voltage Lock Out (UVLO), Over Current Protection (OCP), Fast Over Current Protection (FOCP) and Thermal Shut Down (TSD).

It is available in a PLDFN-9L and FCDFN-9L, 3mm x 3mm package.

### TYPICAL APPLICATION CIRCUIT

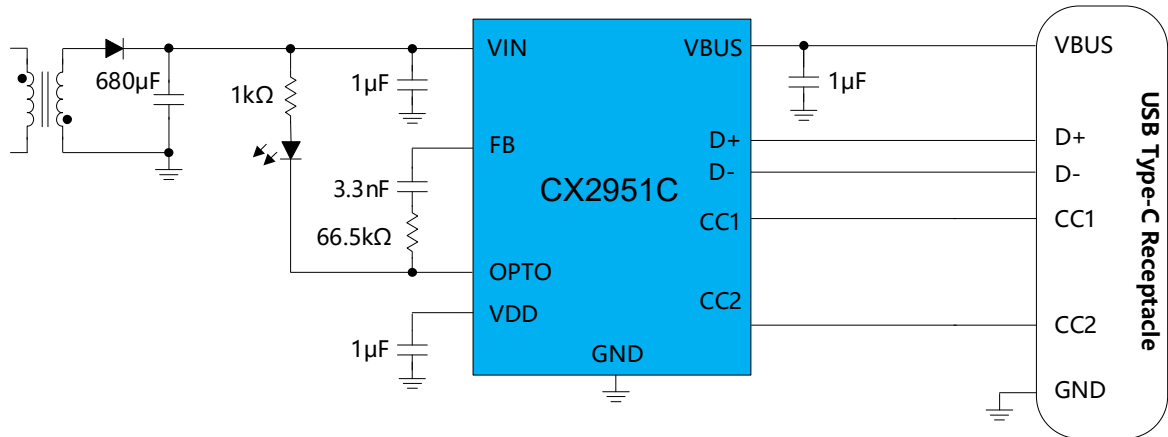


Figure 1. Typical Application Circuit