



Shen Zhen Strong Link Electronics

Charger Interface Physical Layer IC

Product Highlights

- Fully supports Quick Charge 2.0 specification
 - Class A: 5 V, 9 V, and 12 V output voltage
 - Class B: 5 V, 9 V, 12 V, and 20 V output voltage
- USB battery charging specification revision 1.2 compatible
 - Automatic USB DCP shorting D+ to D- line
 - Default 5 V mode operation
- Supports TOPSwitch and TinySwitch
- Very low power consumption
 - Below 1 mW at 5 V output
- Fail safe operation
 - Adjacent pin-to-pin short-circuit fault
 - Open circuit pin fault

Typical Applications

- Battery chargers for smart phones, tablets, netbooks, digital cameras, and bluetooth accessories
- USB power output ports

Description

LY9001 is a low-cost USB high-voltage dedicated charging port (HVDCP) interface IC for the Quick Charge 2.0 specification. It incorporates all necessary functions to add Quick Charge 2.0 capability to Power Integrations' switcher ICs such as TOPSwitch or TinySwitch and other solutions employing traditional feedback schemes.

LY9001 supports the full output voltage range of either Class A or Class B. Optionally Class B can be inhibited for protecting the battery charger from accidental damage.

LY9001 automatically detects whether a connected Powered Device (PD) is Quick Charge 2.0 capable before enabling output voltage adjustment. If a PD not compliant to Quick Charge 2.0 is detected the LY9001 disables output voltage adjustment to ensure safe operation with legacy 5 V only USB PDs.

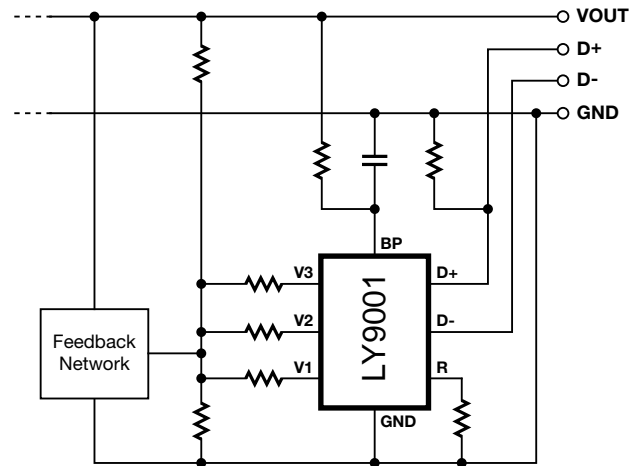


Figure 1. Typical Application Schematic.

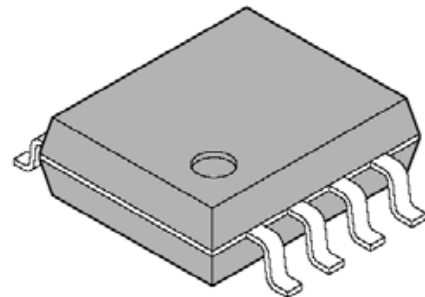


Figure 2. Package Option. SO-8 (D Package)

OUTLINE DRAWING

