



# CW3047

## USB Charging Controller with Current Limitation

### Features

- D+/D- DCP Mode per USB Battery Charging Specification 1.2
- D+/D- Short Mode per Telecommunication Industry Standard YD/T1591-2009 (Chinese)
- Supports non-BC1.2 Charging Modes by Automatic Selection
  - D+/D- Option for Apple Device
  - D+/D- Option for Samsung Device
- Integrated High Side NMOS Switch
- Ultra Low  $R_{DS(on)}$ 
  - 21m $\Omega$  @ eMSOP package
  - 18m $\Omega$  @ DFN package
  - 16m $\Omega$  @ SOT package
- Operating Voltage Range: 4.5V to 5.5V
- 2.7A Current Limit
- Power Consumption
  - 10 $\mu$ A When Device is Disabled
  - 380 $\mu$ A When Device is Enabled
- 8kV HBM ESD Rating on D+/D- Pins
- Lead (Pb)-Free, Halogen-Free, eMSOP10, DFN2.5\*2.5-10 and SOT23-8 Package
- UL Approved, Certificate Number: 20180208-E485783

### Applications

- Wall Charging Adapters
- Power bank
- USB Ports (Hosts and Hubs)
- Other USB charging devices

### General Description

The CW3047 is the USB charging controller IC integrated output current limitation function.

CW3047 is fully compatible with BC1.2 and other non-BC1.2 standards like YD/T1591-2009, Apple charging specification (for iPad & iPhones) and specs from Samsung Galaxy family.

The IC is used to facilitate charging procedure when most of the mainstream handheld devices are detected.

An ultra-low  $R_{DS(on)}$  power-distribution switch is integrated to provide protection from port in-rush current or short-circuit.

The CW3047 is suitable for all the charger products using USB interface like power bank, wall adapter, multi-port USB adapter. The IC is provided with enhanced ESD protection up to +/-8kV with application on D+/D- Pins.

### Typical Application

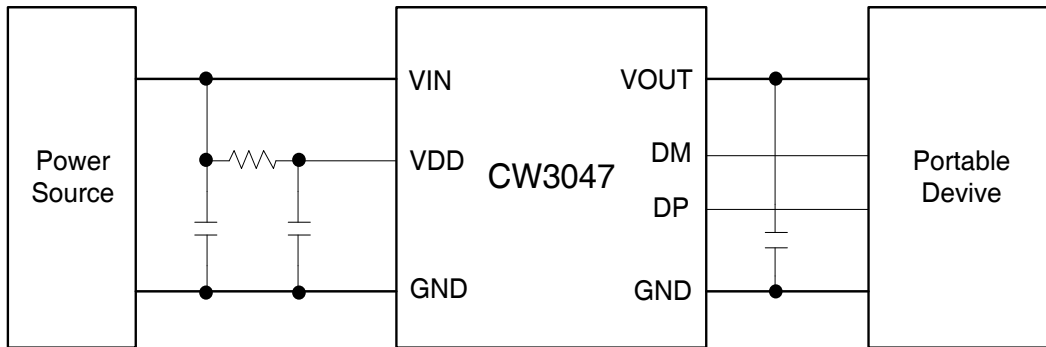


Fig1. Typical Application

### Ordering Information

PART	OPERATING JUNCTION TEMPERATURE	PACKAGE	TOP MARK
CW3047AAAE	-40°C to 125°C	eMSOP10	3047AAAE
CW3047AAAD	-40°C to 125°C	DFN2.5*2.5-10	47AAAD
CW3047AAAS	-40°C to 125°C	SOT23-8	3047A