



MA5887
USB Fast Charging Controller

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Revision History

Date	Revision	Description
Jan, 2014	1.01	Official Release
Mar, 2014	1.02	Update Mode Selection

1. Description

With Smartphone and Tab become the mainstream portable mobile devices, the demand for a “universal charging (fast charging)” to various mobile devices increase dramatically.

The MA5887 is a USB fast-charging controller which complies with USB Battery Charging Specification (BC) version 1.2, which allows charging device to draw a current similar to using the original wall-charger. Normally, a USB wall-charger provides unified charging mechanism by traditional USB current supply (0.5A) when charging devices through USB ports. With a USB enabled wall-charger which complies with USB BC, it provides unified charging mechanism by more USB current supply (up to 1.5A) when charging devices through USB ports, so called “fast-charging” mechanism. In another word, MA5887 is a high performance solution for “fast-charging” mechanism and speed up charging time much.

MA5887 embedded automatic charger detection circuit which complies with USB Battery Charging Specification (BC) version 1.2, and Apple/Samsung Tab resistor mode. This feature implies MA5887 supports wide range of Smartphone/Tabs for fast charging and provides design flexibility for system manufactures.

The MA5887 is designed for all charger products with USB interface. With the package of SOT23-5, the MA5887 provides best performance and cost solution.

2. Features

- Support USB Battery Charging Specification 1.2 (BC1.2 Charging Spec)
- Support Apple® Devices fast charging. (Selectable Apple® 1A / 2.4A mode)
- Support Samsung Galaxy Tab Devices Charging (2.1A mode)
- Support Chinese Telecommunications Industry Standard YD/T 1591-2009
- Automatic charging detection circuit for Apple, Samsung, and BC compliant devices
- Ultra low power consumption
- MCU base design for fast technical support
- Available in SOT23-5 package
- Target application:
 - ✓ USB universal wall-charger
 - ✓ USB universal car-charger
 - ✓ Travel adapter
 - ✓ Power bank supply

