# MA5889

# USB Fast Charging Controller

## Description

With Smartphones and Tablets emerging as the mainstream portable mobile devices, the demand for universal charging (fast charging) to various mobile devices has increased dramatically.

The MA5889 is a USB fast-charging controller that complies with the USB Battery Charging Specification (BC) version 1.2 and allows charging devices to draw current similar to original wall-chargers. 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 that complies with USB BC, it provides a unified charging mechanism with more USB current supply (up to 1.5A); so called "fast-charging" mechanism; when charging devices through USB ports. The MA5889 is a high performance battery charging solution with "fast-charging" mechanism to speed up the charging time.

The MA5889 embedded automatic charger detection circuit complies with both USB Battery Charging Specification (BC) version 1.2 and Apple/Samsung Tab resistor mode. This feature implies MA5889 supports wide ranges of Smartphone/Tablets for fast charging and provides design flexibility for system manufacturers.

The MA5889 is designed for all charger products with USB interface and provides SOT23-6 package for dual USB port support.

## Features

- ✓ Supports USB Battery Charging Specification 1.2 (BC1.2 Charging Spec)
- ✓ Supports Apple® Device fast charging (Selectable Apple® 1A / 2.4A mode)
- ✓ Supports Samsung Galaxy Tab Devices charging (2.1A mode)
- ✓ Supports 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 for MA5887 (single USB port)

✓ Available in SOT23-6 package for MA5889 (dual USB port)

# Application:

✓ USB universal wall-charger

✓ USB universal car-charger

✓ Travel adapter

✓ Power bank supply

# Package

SOT23-6