Product Overview

MC33342: NiCd/NiMH Battery Fast Charge Controller

For complete documentation, see the data sheet.

The MC33340 and MC33342 are monolithic control ICs that are specifically designed as fast charge controllers for Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries. These devices feature negative slope voltage detection as the primary means for fast charge termination. Accurate detection is ensured by an output that momentarily interrupts the charge current for precise voltage sampling. An additional secondary backup termination method can be selected that consists of either a programmable time or temperature limit. Protective features include battery over and undervoltage detection, latched over temperature detection, and power supply input undervoltage lockout with hysteresis. Fast charge holdoff time is the only difference between the MC33340 and the MC33342. The MC33340 has a typical holdoff time of 177 seconds and the MC33342 has a typical holdoff time of 708 seconds.

Features

- Negative Slope Voltage Detection with 4.0 mV Sensitivity
- Accurate Zero Current Battery Voltage Sensing
- High Noise Immunity with Synchronous VFC/Logic
- Programmable 1 to 4 Hour Fast Charge Time Limit
- Programmable Over/Under Temperature Detection
- Battery Over and Undervoltage Fast Charge Protection
- Power Supply Input Undervoltage Lockout with Hysteresis
- Operating Voltage Range of 3.25 V to 18 V
- 177 seconds Fast Charge Hold-off Time (MC33340)
- 708 seconds Fast Charge Hold-off Time (MC33342)

For more features, see the data sheet

For more information please contact your local sales support at www.onsemi.com.

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