

Low-power off-line primary side regulation controller ME8302

General Description

The ME8302 is a high performance AC/DC power supply controller for battery charger and adapter applications.

The device uses pulse frequency modulation (PFM) method to build discontinuous conduction mode(DCM) flyback power supplies.

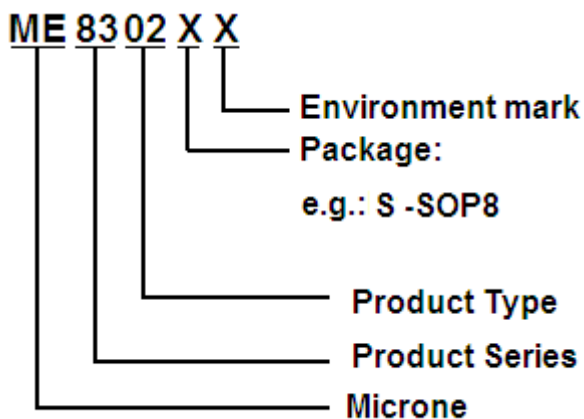
The ME8302 provides accurate constant voltage, constant current(CV/CC) regulation without requiring an Opto-coupler and secondary control circuitry. It also eliminates the need of loop compensation circuitry while maintaining stability. The ME8302 achieves excellent regulation and high average efficiency, yet meets the requirement for no-load consumption less than 30mW.

The ME8302 has the built-in programmable cable voltage drop compensation function, which make it flexible to accommodate various cables with different gauges and lengths.

Features

- Primary side control for eliminating Opto-coupler and secondary CV/CC control circuitry
- 30mW no-load input power
- Programmable output cable voltage drop compensation
- Compensation for external component temperature variations
- Flyback topology in DCM operation
- Random frequency adjustment to reduce system EMI
- Built-in soft start
- Open feedback protection
- Thermal shutdown protection
- over voltage protection
- Short circuit protection
- SOP8 package

Selection Guide



Applications

- Adapter/chargers for cell/cordless phones, PDAs, MP3 and other portable apparatus
- LED driver
- Standby and auxiliary power supplies