



PRODUCT OUTLINE

CM1812ff – 150mA, 1.3–3.3V Buck Converter
Current mode control, adjustable output voltage

Part Number

■ CM1812ff

Features

- PWM, PFM and forced PWM modes
- Excellent line transient response
- High Efficiency (around 90%)
- Output load up to 150mA
- Input voltage: 2.5 – 5.5V
- Adjustable output voltage (1.3 – 3.3V)
- Output voltage accuracy: $\pm 5\%$
- 3MHz switching frequency
- Core area: $760\mu\text{m} \times 845\mu\text{m}$ (0.47mm^2)

Applications

- Mixed signal SoCs
- Microcontrollers

Technology

- Silterra 0.18 μm D18V BCD

Deliverables

- Datasheet/Integration Guide
- HDL Model
- Flat GDSII database/LVS netlist
- Customer Support

Status

- Silicon proven

Overview

This macro-cell is a high-efficiency, current-mode controlled buck DC-DC converter, targeted to supply continuous or pulsed loads up to 150mA. The converter switches automatically from PWM to PFM mode depending on the load condition. A forced-PWM mode is also available when fixed-frequency operation is required. The output voltage is adjustable from 1.3V to 3.3V by a 5-bit digital word.

Functional Diagram

