

ULTRA-SMALL PACKAGE PWM/PFM SWITCHING CONTROL

STEP-UP SWITCHING REGULATOR

General Description

The ME2139 series is a CMOS step-up switching regulator which mainly consists of a reference voltage source, an oscillation circuit, an error amplifier, a phase compensation circuit, a PWM/PFM switching control circuit. With an external low-ON-resistance Nch Power MOS, this product is applicable to applications requiring high efficiency and high output current. The ME2139 series switches its operation to the PFM control circuit whose duty ratio is 15 % with to the PWM/PFM switching control circuit under a light load and to prevent decline in the efficiency by IC operation current.

Features

- Low voltage operation: Start-up is guaranteed from 0.9 V(IOUT =1 mA)
- Duty ratio: Built-in PWM/PFM switching control circuit 15 to 78 % .
- oscillator frequency: 1.0MHz
- External parts: coil, diode, capacitor, and transistor
- Output voltage range: <20V
- Feedback voltage accuracy: $\pm 2\%$
- Soft start function: 2 ms

Applications

- MP3 players, digital audio players
- Digital cameras, GPS, wireless transceiver
- Portable devices

Package

- 5-pin SOT23-5