

ULTRA-SMALL PACKAGE PWM/PFM SWITCHING CONTROL

STEP-UP SWITCHING REGULATOR

### General Description

The ME2109 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 ME2109 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 0.9V(IOUT =1 mA )
- Duty ratio: Built-in PWM/PFM switching control circuit 15 to 78 % .
- oscillator frequency: 300KHz
- External parts: coil, diode, capacitor, and transistor
- Output voltage range: <20 V
- Output voltage accuracy:  $\pm 2\%$
- Soft start function: 2 ms.

### Applications

- Mobile phones (PDC, GSM, CDMA, IMT200 etc.)
- Bluetooth equipment
- PDA
- Portable communication modem
- Portable games
- Cameras
- Digital cameras
- Cordless phones
- Notebook computers

### Package

- 5-pin SOT23-5