

DESCRIPTION

The MT5075 family devices provide a power-supply solution for products powered by either a single, two or three-cell Alkaline, NiCd or NiMH, or one-cell Li-Ion or Li-polymer battery. Available output current depends on the input-to-output voltage ratio. The step-up converter is based on current-mode pulse-width-modulation (PWM) control using synchronous rectification to obtain maximum efficiency with the minimum quiescent current. The output voltage is fixed 2.8V, 3.3V and 5V internally on the chip. The converter can be switched off to minimize battery drain in shutdown. In shutdown, the MT5075 connects the battery input to the output, allowing the input battery to be used as a backup or real-time clock supply when the converter is off. The devices are offered in a small 5-pin SOT23_5L package.

FEATURES

- Up to 92% Efficiency
- 9µA Quiescent Current
- Startup with 0.9V Minimum Input Voltage
- Operating Input Voltage from 0.9V to 5V
- Maximum Switch Current 450mA at 3.3Vout
- $V_{IN} \geq V_{OUT}$ Pass-Through Operation with the Fixed V_{OUT} Parts
- V_{OUT} Pulled to V_{IN} in Shutdown
- Fixed 2.8V, 3.3V and 5V Output Voltage
- Input Under-voltage Lockout
- Pb-Free (ROHS compliant)
- Small 5-pin SOT23_5L Package

APPLICATIONS

- Battery Powered Applications:
 - 1 to 3 Cell Alkaline, NiCd or NiMH
 - 1 cell Li-Ion
- Solar or Fuel Cell Powered Applications
- Consumer and Portable Medical Products
- Personal Care Products

TYPICAL APPLICATIONS

