

1.8A Line Switch with Low On-Resistance

DESCRIPTION

The EUP3504 is a low dropout line switch IC with ON/OFF control and output current protection which integrates a P-channel MOSFET.

By connecting the EUP3504 to the output pin of a step-down DC/DC converter, the EN pin controls ON/OFF for each distribution switch to deliver power per requirements and maximize total power efficiency. As a result, the EUP3504 helps to extend battery life and product operation time.

The EUP3504 contains a current limit protection circuit so these are not required externally unlike discrete circuit solutions where MOSFETs and resistors are used. Externally programmable soft-start allows for proper power on sequencing with respect to other power supplies and avoids input inrush current during startup.

When a low signal is input to the EN pin, the IC enters shutdown mode. Even where a load capacitor is connected to the output pin during shutdown, the electric charge stored at the load capacitor is discharged through the internal switch. As a result, the VOUT pin voltage falls quickly to the GND level. The EUP3504 contains thermal shutdown protection.

FEATURES

- 3.3V to 13.5V Input Voltage Range
- 110mΩ On Resistance
- Low 90μA Quiescent Current
- Low Shutdown Current : <4μA
- ON/OFF Control Function
- Externally Programmable Current Soft-Start
- High Speed Auto Discharge Function
- Operating Temperature Range: -40°C ~+85°C
- 2.35A Output Current Limit
- Thermal Shutdown
- RoHS Compliant and 100% Lead (Pb)-Free Halogen-Free

APPLICATIONS

- Portable Equipment
- Laptop, Palmtops, Notebook Computers
- LCD Monitor TV

Typical Application Circuit

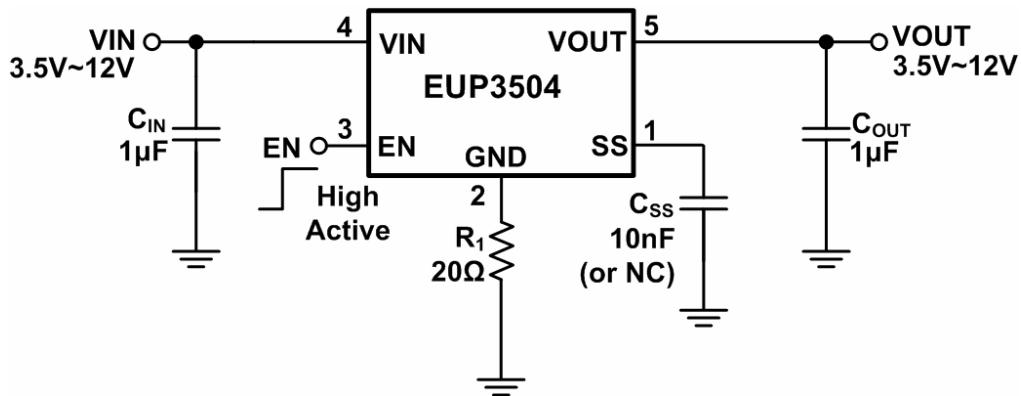


Figure 1.