

2A Line Switch with Low On-Resistance

DESCRIPTION

The EUP3512A/B is a low dropout line switch IC with ON/OFF control and output current protection which integrates a P-channel MOSFET. It can deliver current up to 2A.

By connecting the EUP3512A/B 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 EUP3512A/B helps to extend battery life and product operation time.

The EUP3512A/B contains a current limit and protection circuit so these are not required externally unlike discrete circuit solutions where MOSFETs and resistors are used.

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 EUP3512A/B contains over current protection.

The device has a SS pin dedicated to soft-start ramp-up rate control that can be used in application where the inrush current is concerned. The EUP3512A/B eliminates any reversed current flow across the switch when it is powered off.

The EUP3512A/B is available in SOT23-5 packages, operates over the extended (-40°C to +85°C) temperature range.

FEATURES

- 80mΩ(typ.) Power MOSFET
- Operating Range : 2.7V to 5.5V
- Deliver Current up to 2A
- Under Voltage Lockout
- 24μA Quiescent Current
- 1μA Maximum Shutdown Current
- No Reverse Current when Power Off
- Soft_Start Time Programmable by External capacitor
- Output Shutdown Pull-low Resistor
- Enable Active-High
- Available in SOT23-5
- RoHS Compliant and 100% Lead(Pb)-Free Halogen-Free

APPLICATIONS

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

Typical Application Circuit

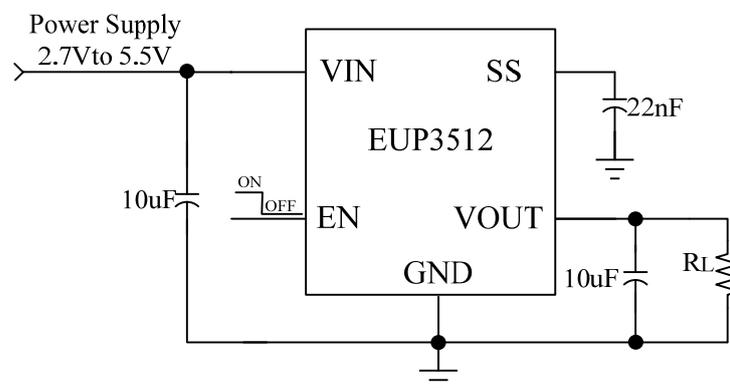


Figure 1