

75mΩ USB Power-Distribution Switch

DESCRIPTION

The EUP3550 is an incorporated power-distribution switch for USB applications and the 75mΩ P-channel MOSFET realized in this IC.

The EUP3550 integrates several protection features to prevent catastrophic switch failure caused by increasing power dissipation. When the output load exceeds the current-limit threshold or a short is present, the system limits the output current to safe level by switching into a constant-current limit mode and pulls the OCB logic output low. An internal reverse voltage comparator disables the power switch when the output voltage is driven higher than the input to protect devices on the input side of switch.

OCB is open-drain output which is asserted when over-current or short circuit event occurs. A 7ms fault-blanking feature enables the circuit to ignore momentary faults, such as those caused when hot-swapping a capacitive load, preventing false alarms to the host system. The EUP3550 eliminates any reversed current flow across the switch when it is powered off.

The EUP3550 is available in SOT23-5, SOT23-6 and MSOP-8 packages, operates over the extended (-40°C to +85°C) temperature range.

FEATURES

- 75mΩ(typ.) Power MOSFET
- Operating Range : 2.7V to 5.5V
- Under Voltage Lockout
- 14μA Quiescent Current
- 1μA Maximum Shutdown Current
- No Reverse Current when Power Off
- Fault Blanking Open-Drain Over-Current Flag Output OCB
- Output Shutdown Pull-low Resistor
- Available with 4 Versions of Current Limits with Foldback.
- Enable Active-High or Active-Low
- UL Certification_#E334299
- CB Test Certification by IEC62368-1:2018
- Available in SOT23-5 , SOT23-6 and MSOP-8 Packages
- RoHS Compliant and 100% Lead(Pb)-Free Halogen-Free

APPLICATIONS

- USB Ports and Hubs
- TV
- Set-Top Boxes

Typical Application Circuit

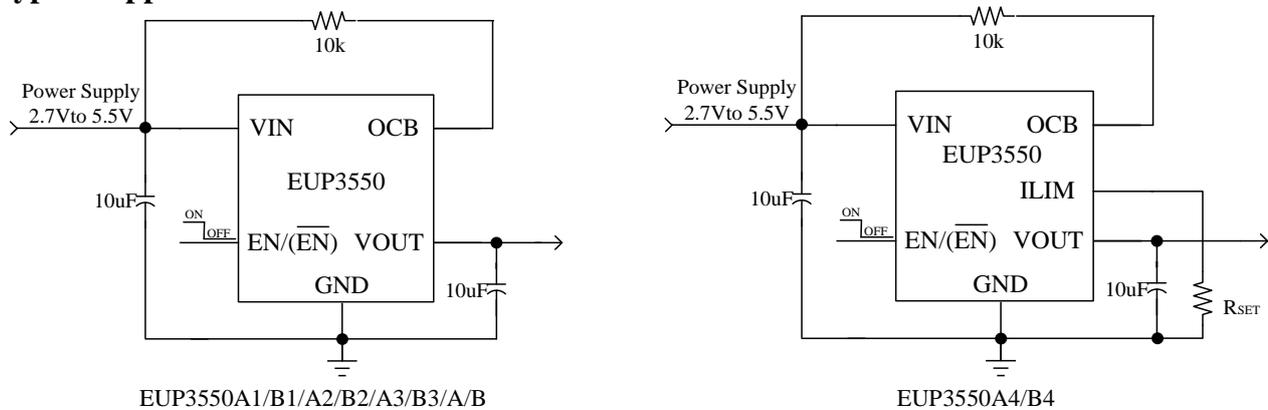


Figure 1.