Power Distribution Switch

Features

- 53mΩ High-Side MOSFET
- Available with 4 Versions of Current Limits with Foldback
- Operating Range:2.7V to 5.5V
- 400μS Typical Rise Time
- Under voltage Lockout
- 90μA Quiescent Supply Current
- 1μA Maximum Shutdown Supply Current
- Logic Level Enable Pin, Available with Active-High or Active-Low Version
- No Reverse Current when Power Off
- Deglitched Open-Drain Over-Current Flag Output ($\overline{OC}$)
- SOP-8 , MSOP-8 and TDFN3X3-8 Packages

Applications

- High-Side Power Protection Switch
- USB Power Management
- USB Host and Self-Powered Bubs
- USB Bus-Powered Hubs
- Hot Plug-In Power Supplies
- Battery-Charger Circuits

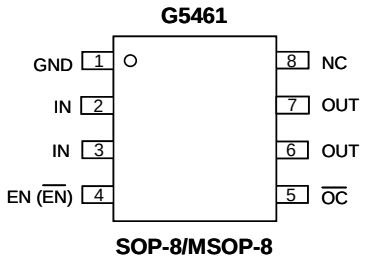
General Description

The G5461 is an integrated 53mΩ power switch for self-powered and bus-powered Universal Serial Bus (USB) applications.

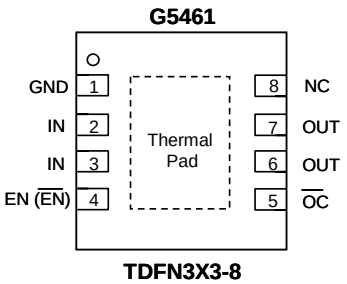
Several Protection features include current limiting with foldback, and thermal shutdown to prevent catastrophic switch failure caused by increasing power dissipation when continuous heavy loads or short circuit occurs. And a built-in charge pump is used to drive the N-channel MOSFET that is free of parasitic body diode to eliminate any reversed current flow across the switch when it is powered off.

$\overline{OC}$ is open-drain output report over-current or over-temperature event and has typical 9ms deglitch timeout period.

Pin Configuration



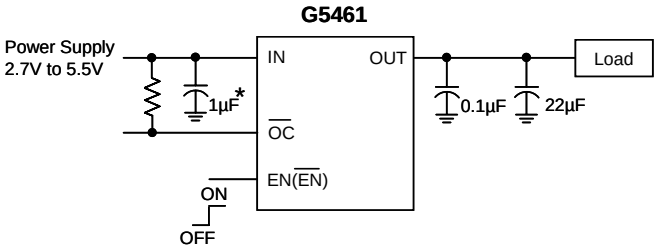
SOP-8/MSOP-8



TDFN3X3-8

Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

Typical Application Circuit



*: 1μF of input capacitor is enough in most application cases.
If the PCB trace of power rail to IN is long, larger input capacitor is necessary.