

Dual Power Distribution Switch

Features

- 87mΩ $R_{DS(ON)}$ (G546X1, G546X2) and 72mΩ $R_{DS(ON)}$ (G546X3, G546X4)
- Available with 5 Versions of Current Limits with Foldback
- Operating Range: 2.7V to 5.5V
- 400μS Typical Rise Time
- Under voltage Lockout
- 65μA 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 Package, MSOP-8, MSOP-8 (FD) and TDFN3X3-8 Package
- UL Approved #E232223
- Nemko IEC 60950-1 CB/CCA_scheme Certification Report #67291

General Description

The G546 are integrated dual channel 87mΩ (G546X1, G546X2) and 72mΩ (G546X3, G546X4) power switches for self-powered and bus-powered Universal Serial Bus (USB) applications.

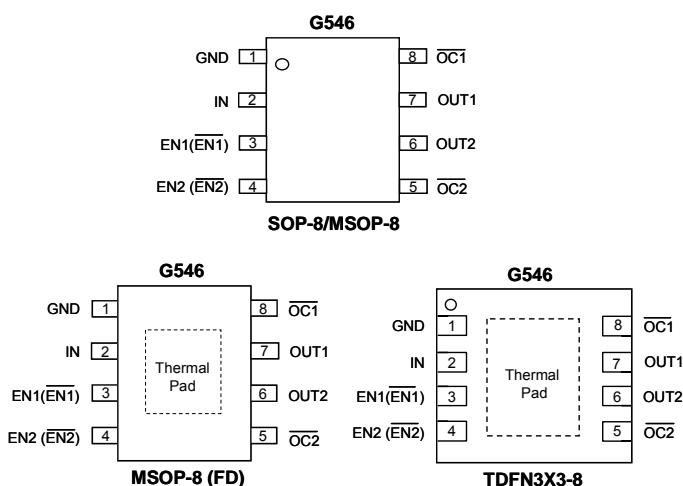
Several Protection features include current limiting with foldback, and thermal shutdown to prevent catastrophic switch failure caused by increasing power dissipation when continuous heavy loads or short circuit occurs. And a built-in charge pump is used to drive the N-channel MOSFET that is free of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

Applications

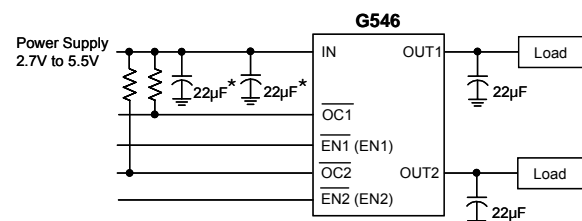
- High-Side Power Protection Switch
- USB Power Management
- USB Host and Self-Powered Bubs
- USB Bus-Powered Hubs
- Hot Plug-In Power Supplies
- Battery-Charger Circuits

Pin Configuration



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

Typical Application Circuit



*: 22μF x 2 ea of input capacitor is to prevent input voltage drop at output short. If the PCB trace of power rail to IN is long, larger input capacitor is necessary.



UL Recognized Component