

# **Dual Power Distribution Switch**

#### Features

- 87mΩ R<sub>DS(ON)</sub> (G546X1, G546X2) and 72mΩ R<sub>DS(ON)</sub> (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 (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

#### 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** 

### **General Description**

The G546 are integrated dual channel  $87m\Omega$  (G546X1, G546X2) and  $72m\Omega$  (G546X3, G546X4) power switchs 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.

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

## **Typical Application Circuit**





\*: 22µFx2ea 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.