LinearDimensions
SEMICONDUCTOR

LND3526H/L-/CB
DUAL USB POWER CONTROL SWITCH

GENERAL DESCRIPTION

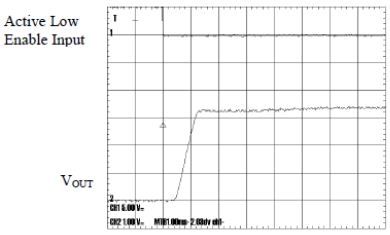
The LND3526, is a dual high side power control switch, with independent enable and flag functions optimized for self powered and bus- powered universal serial bus (USB) applications.

The LND3526 satisfies the following USB requirements: Each switch channel supplies up to 500mA with internal circuitry limiting the fault current to 750mA. The switch's 140mΩ on- resistance meets USB voltage drop requirements. A flag output is available to indicate fault conditions to the local USB controller.

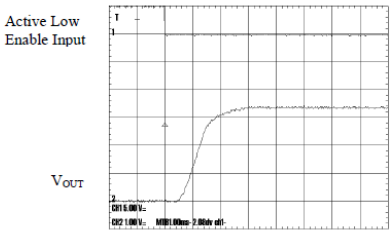
Additional features include: UVLO to ensure that the device remains off until there is a valid input voltage present, thermal shutdown to prevent switch failure from high current loads and 3.3V and 5V logic compatible enable inputs. The LND3526H/L-CB provides additional circuit breaker functionality if desired.

The LND3526 is available in active-high and active-low versions in 8-pin die and SOIC packages.

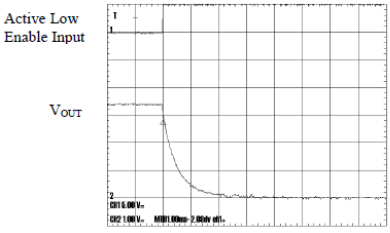
OPERATING WAVEFORMS



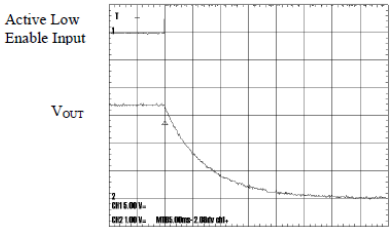
Turn-On with 47 Ω/10 µF Load



Turn-On with 47 Ω/150 µF Load



Turn-Off with 47 Ω/10 µF Load



Turn-Off with 47 Ω/10 µF Load

FEATURES

- USB specification compliant
- 2.7 to 5.5V operating range
- 2 independent switches
- 140 mΩ maximum on-resistance
- Active-high or active-low ENABLE versions
- Independent open drain fault flag pins
- 500mA continuous load current per switch
- Thermal shutdown
- Reverse Blocking
- Soft Start
- Fault flag with deglitch filter
- Drop in replacement for industry standard footprints

APPLICATIONS

- USB host and self powered hubs
- USB bus-powered hubs
- USB monitors, printers, cameras and other USB controlled peripherals
- Hot plug-in power supplies
- Battery charger circuits

PINOUT