

## Product Overview

### LV5068V: Non-Synchronous Buck Controller, Switching, 1-Channel

For complete documentation, see the data sheet.

The LV5068V is a Non-Synchronous Buck Controller, designed to operate from a wide range of input voltages (4.5 V to 40 V) and to exhibit very low current consumption under light load (55 uA typ). The LV5068 is extremely flexible and allows the designer to set the switching frequency (300 kHz to 2.2 MHz), the current limit and a soft-start through an external capacitor. In addition, the device may be synchronised with an external signal. The LV5068V incorporates output voltage monitoring with a PowerGood pin, and protection features include built-in overcurrent protection, input undervoltage lockout as well as thermal shutdown capability. The LV5068V is available in a 16-pin SSOP package.

#### Features

- Maximum value of light load mode current is 80uA.
- Built-in OCP circuit with P-by-P method
- When P-by-P is generated continuously, it shifts to the HICCUP operation. If connect C-HICCUP to GND pin, then latch-off when over current.
- The oscillatory frequency can be set by the external pin. The oscillatory frequency is 300 kHz to 2.2MHz
- Built-in UVLO, TSD
- The device is capable of Synchronous operation with an external signal

#### Applications

- Power Supply for standby uControllers

#### Benefits

- Enhanced efficiency at lower output current
- Protects against over current conditions
- Allows for selectable protection
- Allows for design flexibility
- Protection feature
- Allows for frequency synchronization

#### End Products

- Set-Top box, DVD players, HDD
- Printers
- LCD monitors and TV

#### Part Electrical Specifications

| Product       | Pricing (\$/Unit) | Compliance             | Status | Topology  | Phases | Control Mode | V <sub>CC</sub> Min (V) | V <sub>CC</sub> Max (V) | f <sub>sw</sub> Typ (kHz) | Package Type |
|---------------|-------------------|------------------------|--------|-----------|--------|--------------|-------------------------|-------------------------|---------------------------|--------------|
| LV5068V-TLM-H | 1.6528            | Pb-free<br>Halide free | Active | Step-Down | 1      | Current Mode | 4.5                     | 40                      | 330<br>300 - 2200         | SSOP-16      |

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