



Dual Low Voltage Drop Linear Regulator (LDO)

1 Main features:

- ◆ Dual output: one output is fixed at 3.3V, and the other output is externally adjustable
- ◆ 1A current load capacity per channel
- ◆ Output voltage accuracy is 3%
- ◆ Input voltage: 2.7V to 10V
- ◆ Ultra-low voltage drop: 350mV@1A
- ◆ Ultra-low static current: 85μA
- ◆ Package: TSSOP28

2 Typical application

- ◆ Battery powered equipment
- ◆ Output signal processor (DSP) core and I/O voltage
- ◆ Automotive electronics
- ◆ Hot swap and surge control
- ◆ Efficient switching power supply regulator
- ◆ Field programmable gate array (FPGA) application

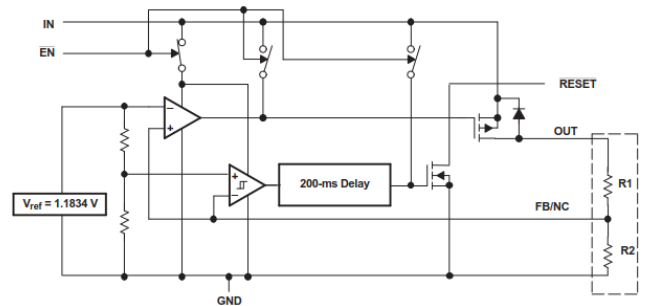
3 Product description

The HL767 is a dual-output low-drop linear regulator that can drop as low as 350mV at 1A load. The ultra-low static current can effectively reduce the power consumption of the chip itself and improve the efficiency of the power supply. The built-in overcurrent protection circuit and overtemperature protection current ensure that the chip can effectively prevent the damage to the back-end circuit under various circumstances. The device also features a high-precision reference voltage circuit and error amplifier that guarantees 3% accuracy over the entire load, line, temperature, and process range.

5 Compared with similar foreign products

	precision	Output range	Pressure drop	Current to earth	Output current	PSRR	Encapsulation form
TPS767D31 (TI)	3%	1.5V - 5.5V	350mV@1A	85μA	0 - 1A	60dB@1KHz	TSSOP28
HL767	3%	1.5V - 5.5V	350mV@1A	85μA	0 - 1A	60dB@1KHz	TSSOP28

Dual output adopts independent power supply system, without interference between each other. The fixed output of one regulator is 3.3V, and the output voltage of the other regulator can be configured through the outer part of the voltage resistance, which is flexible and convenient to use. The two outputs have independent power indication signals, which can effectively control the opening and closing of the rear circuit. The chip adopts TSSOP28 package, which has low package parasitic effect. The internal structure block diagram of the chip is as follows (the partial voltage resistance of the fixed output regulator is inside the chip, and the partial voltage resistance of the adjustable output regulator needs to be connected externally) :



4 Product highlights

- ◆ Dual output, 1 output fixed 3.3V, 1 output voltage externally adjustable, easy to use.
- ◆ Two voltage regulators use independent power supply structure, there is no interference between each other.
- ◆ The two outputs have independent power indicator signals, which is convenient for subsequent circuit control.
- ◆ Excellent transient response performance.
- ◆ Built-in over-current protection, over-temperature protection and battery reverse protection circuit, high safety, to avoid damage to the rear circuit.
- ◆ Enable the signal end to easily implement power-on sequencing.