

General Description

Two times charge pump and constant switching frequency configuration with low noise characteristics, low external components makes the AS6305/AS6305A unique performance and perfect for the portable applications.

Either fixed regulated output voltage (AS6305) or adjusted output voltage (AS6305A) are available for different applications with input voltage range from 2.7V to 4.5V and provide up to 100mA of output current.

Soft-start circuitry, preventing the inrush current, thermal shutdown and short circuit protection are all built-in as well. It also features with <math><1\mu A</math> low shutdown current when the device is disable.

The AS6305A is available in an 8-pin MSOP-8 package (adjustable output) and the AS6305 is available in a 6-pin SOT-26 or TSOT-26 package (fixed 5V output).

Typical Applications

Features

- Low Noise Constant Frequency Operation (2MHz)
- 100mA Output Current
- Power Range form 2.7V to 4.5V
- Shutdown Current <math><1\mu A</math>
- Needs No Inductors
- Soft Start Function Reduces Inrush Current And Has Slew Rate Control
- Output Voltage Regulates to $5V \pm 4\%$ or Adj.
- Uses Small Ceramic Capacitor of $1\mu F$
- Thermal Shutdown Protects Output Over Loading
- Protects Output Shorted to Ground
- PWM dimming Control WLED Brightness
- 5V Fixed Version in SOT-26 or TSOT-26 and Adjustable in MSOP-8 Package

Applications

- White LED Driver
- 3V to 5V Charge Pump Conversion
- Battery Backup Supplies
- Handheld Portable Devices

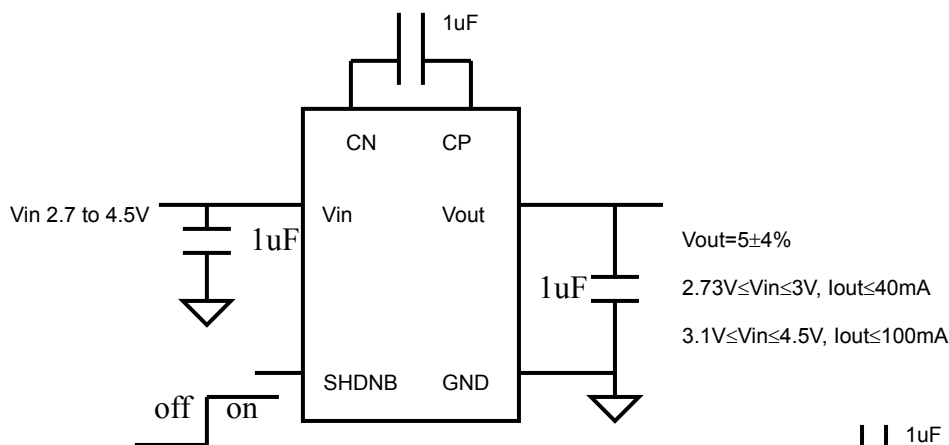


Figure 1. AS6305 Fixed 5V, V_{IN} from 2.7V to 4.5V

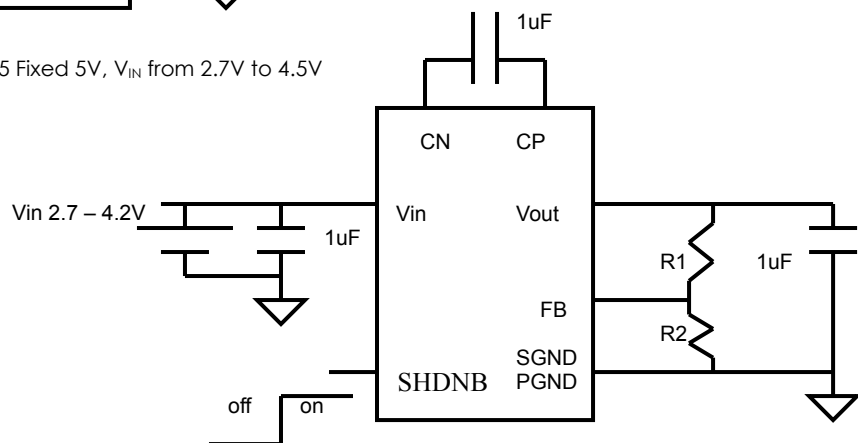


Figure 2. AS6305A Adjustable Output Voltage, V_{IN} from 2.7V to 4.5V