High Precision CC/CV Primary-Side Converters

Description

DK935 is a high performance CC/CV primary-side AC-DC converter chip. With 850V high voltage switch power transistor integrated, it can detect primary side peak current. It operates in primary-side sensing and regulation, so opto-coupler and TL431 could be eliminated. It also integrated primary-side feedback constant current, constant voltage, self-power supply circuit and output cable compensation circuit. It is designed with highly integrated CMOS circuit, with few external components and simple transformer design. The isolated output circuit transformer needs only two windings.

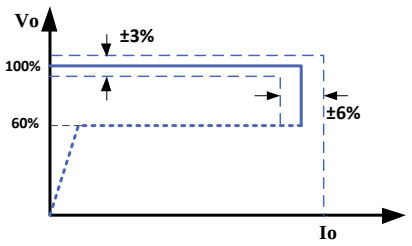
Applications

- Power adapters for portable device
- Power supply for mobile phone and battery
- Standby or auxiliary power supply for household appliances
- LED power supply, etc.

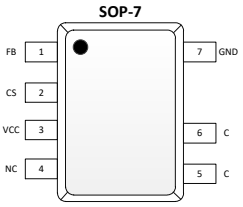
Main Features

- Global voltage input AC 85V-265V
- Built-in 850V high voltage power BJT
- Internal HV start-up circuit
- Patented primary-side feedback control algorithm
- Patented self-power supply design
- Output line loss compensation technology
- Built-in PWM oscillator circuit and frequency jitter function to improve EMI
- ±3% CV accuracy, ±6% CC accuracy
- Over temperature, over voltage, over current, short circuit protection
- 4KV ESD

Output characteristics



Package/Order Information



Product Model	Package Type	Typical Power
		85-265V_{AC}
DK935	SOP-7	5W

Remark: Test typical power in closed environment @45℃ ambient temperature.

Function Structure Diagram