

## 30V 2.4A Synchronous Buck Converter

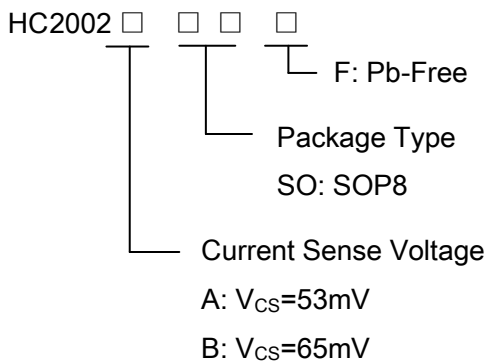
### General Description

The HC2002 is a synchronous, rectified, step-down, switch-mode converter with built-in power MOSFET. The HC2002 offers a very compact solution that achieves a maximum of 2.4A of continuous output current.

The HC2002 has synchronous mode operation for high efficiency over the output current load range. Current-mode operation provides fast transient response and eases loop stabilization.

The HC2002 requires a minimum number of readily available standard external components. Other features include cable compensation, programmable current limit and thermal shutdown.

### Order Information



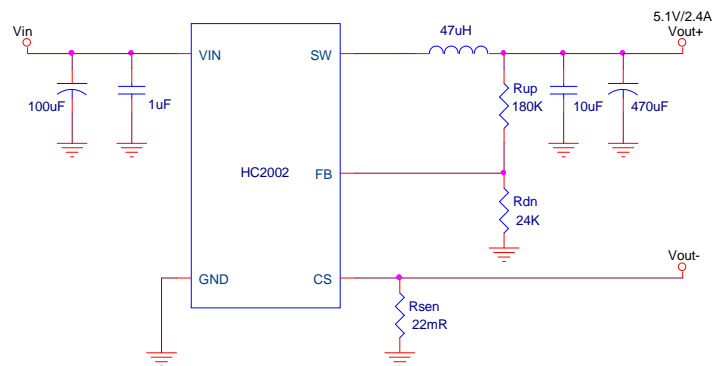
### Applications

- ✧ Car Charger
- ✧ Pre-Regulator for Linear Regulators
- ✧ Distributed Power Systems
- ✧ USB Dedicated Charging Ports (DCP)

### Features

- ◆ Wide 8V to 30V Continuous Operating Input Range
- ◆ 78mΩ/65mΩ Low  $R_{DS(ON)}$  Internal Power MOSFET
- ◆ Up to 93% Efficiency
- ◆ Default 160kHz Switching Frequency
- ◆ Internal Soft Start
- ◆ Output Line Drop Compensation
- ◆ Over-Current Protection (OCP) programmable with External Resistor
- ◆ No Loop Compensation Required
- ◆ Thermal Shutdown
- ◆ Available in SOP8 Package

### Typical Application Circuit



### Marking Information

Device	Marking	Package	Shipping
HC2002A	HCW	SOP8	2.5K/REEL
HC2002B	TXXX		
Marking indication: 1st X:Production year 2nd X:Production week 3rd X:Production batch			