

3.1A, 36V Input, Adjustable Frequency Step-Down Converter Applications

General Description

The iD8826 is a high voltage buck converter that can support the input voltage range from 4.5V to 36V and the output current can be up to 3.1A. It is a total solution IC for high voltage USB charging application such as car charger. The current Mode operation provides fast transient response and eases loop stabilization and its frequency can also adjusted externally.

An OVP function protects the IC itself and its downstream system against input voltage surges. With this OVP function, the IC can stand off input voltage as high as 42V, making it an ideal solution for industrial applications such as automotive applications.

The chip also provides protection functions such as cycle-by-cycle current limiting and thermal shutdown protection. The iD8826 is available in a PSOP-8 packages.

- Car Charge Ports
- Smart Meters
- Industrial Applications
- Automotive Applications

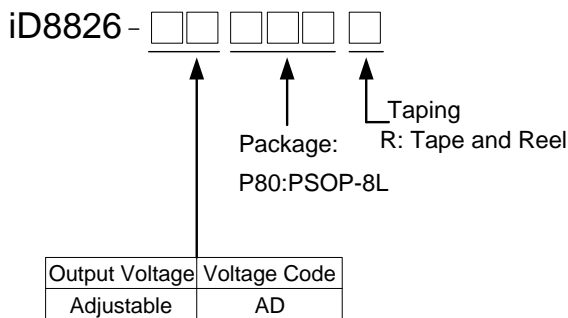
Features

- Wide Operating Input Voltage Range : 4.5V to 36V
- OVP Protection
- 3.1A Output Current
- Cable resistance compensation
- Adjustable Switching Frequency with setting pin
- High Efficiency at 12V to 5Vout: up to 91%
- Thermal Shutdown
- Cycle-By-Cycle Over Current Protection

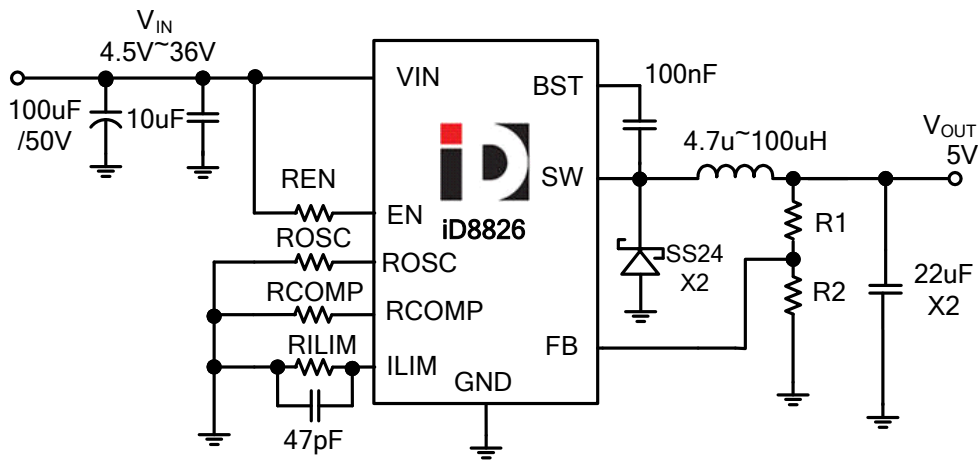
Marking Information

For marking information, please contact our sales representative directly or through distributor around your location.

Ordering Information



Typical Application Circuit



Absolute Maximum Ratings

Supply Voltage V_{IN}	42V
EN, SW Voltage	-0.3V to ($V_{IN} + 0.3V$)
BST Voltage	-0.3V to SW + 6V
All Other Pins	-0.3V to +6V
Power Dissipation, P_D @ $T_A=25^\circ C$	
PSOP-8	1.33W
Thermal Resistance, θ_{JA}	
PSOP-8	75°C/W
Lead Temperature	260°C
Storage Temperature	-65°C to 150°C

Recommended Operating Conditions

Supply Voltage V_{IN}	4.5V to 36V
Junction Temperature	-40°C to 125°C
Ambient Operating Temperatures	-40°C to 85°C