

3MHz, 2A, High Efficiency PWM Step-Down DC/DC Converter

General Description

The iD8217 is a high-efficiency, DC-to-DC step-down switching regulator, capable of delivering up to 2A of output current. The devices operate from an input voltage range of 2.6V to 5.5V and provide output voltages from 0.6V to VIN, making the iD8217 ideal for low voltage power conversions. Running at a fixed frequency of 3MHz allows the use of small inductance value and low DCR inductors, thereby achieving higher efficiencies. Other external components, such as ceramic input and output caps, can also be small due to higher switching frequency, while maintaining exceptional low noise output voltages. Built-in EMI reduction circuitry makes this converter ideal power supply for RF applications. Internal soft-start control circuitry reduces inrush current. Short-circuit and thermal-overload protection improves design reliability. iD8217 is housed in a SOT23-5 package

Applications

- USB ports/Hubs
- Portable Devices
- Set Top Boxes
- Cellphones

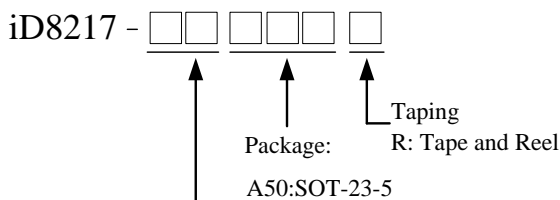
Features

- Up to 96% Efficiency
- Up to 2A Max Output Current
- 3MHz Frequency
- Internal Compensation
- Clock Dithering
- SOT-23-5 Package

Marking Information

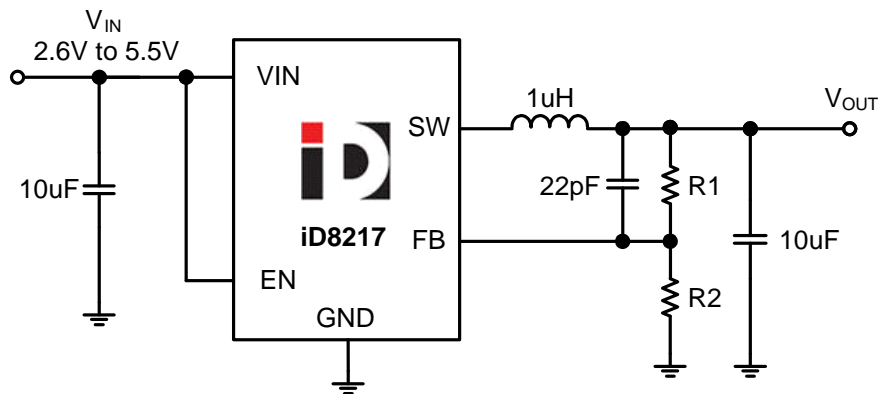
For marking information, please contact our sales representative directly or through distributor around your location.

Ordering Information



Output Voltage	Voltage Code
Adjustable	AD

Typical Application Circuit



Absolute Maximum Ratings

V _{IN} , SW, FB, EN Voltage	-0.3V to 6V
Power Dissipation, P _D @ T _A =25°C	
SOT-23-5	400mW
Thermal Resistance, θ _{ja}	
SOT-23-5	250°C/W
Lead Temperature	260°C
Storage Temperature	-65°C to 150°C
ESD Susceptibility	
HBM (Human Body Mode)	2kV
MM (Machine Mode)	200V

Recommended Operating Conditions

Input Voltage V _{IN}	2.6V to 5.5V
EN Input Voltage	0V to V _{IN}
Junction Temperature	-40°C to 125°C
Ambient Operating Temperature	-40°C to 85°C