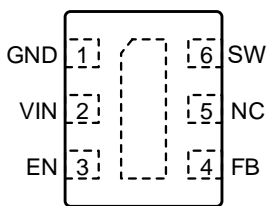


## High Efficiency 2.0A Boost DC/DC Converter

### GENERAL DESCRIPTION

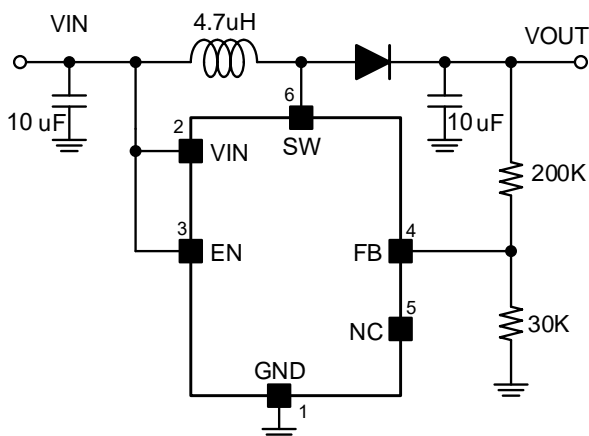
The ERP5031 is a 800KHz PWM boost switching regulator designed for constant-voltage boost applications. The ERP5031 output voltage up to 25V. The ERP5031 implements a constant frequency 800KHz PWM control scheme. The high frequency PWM operation also saves board space by reducing external component sizes. The ERP5031 features automatic shifting to pulse frequency modulation mode at light loads. Highly integration and internal compensation network minimizes as 6 external component counts. Optimized operation frequency can meet the requirement of small LC filters value and low operation current with high efficiency. The ERP5031 includes under-voltage lockout, current limiting, and thermal overload protection to prevent damage in the event of an output overload. The ERP5031 is available in a small DFN-6 package.

### PIN CONFIGURATIONS



TDFN-6

### TYPICAL APPLICATION CIRCUIT



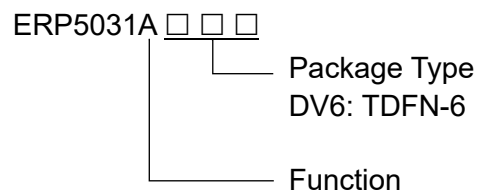
### FEATURES

- Up to 94% efficiency
- Shut-down current: <1 uA
- Output voltage Up to 25V
- Internal Compensation, Soft-start
- 800KHz fixed frequency switching
- High switch on current:2.0A
- Available in TDFN-6 Package

### APPLICATIONS

- Battery products
- Host Products
- Panel

### ORDERING INFORMATION



### MARKING INFORMATION

Device	Marking	Package	Shipping
ERP5031ADV6	ER04 YYMD	TDFN-6	3K/REEL

Marking indication:

**Y**: Production year **M**: Production Month **D**: Production date.

**FUNCTIONAL PIN DESCRIPTION**

TDFN-6	PIN Name	Description
6	SW	Switching pin.
1	GND	Ground.
4	FB	Regulation Feedback Input. Connect to an external resistive voltage divider from the output to FB to set the output voltage.
3	EN	Regulator On/off Control Input. A logic high input ( $V_{EN} > 1.4V$ ) turns on the regulator. A logic low input ( $V_{EN} < 0.4V$ ) puts the ERP5031 into low current shutdown mode.
2	VIN	Power Supply pin.
5	NC	No Connection.

**FUNCTION BLOCK DIAGRAM**
