

DESCRIPTION

The JW[®]5068C is a monolithic buck switching regulator based on I² architecture for fast transient response. Operating with an input range of 5.5V~23V, JW5068C delivers 8A of continuous output current with two integrated N-Channel MOSFETs. The internal synchronous power switches provide high efficiency without the use of an external Schottky diode. At light loads, the regulator operates in low frequency to maintain high efficiency and low output ripples.

JW5068C guarantees robustness with output short protection, thermal protection, current run-away protection, and input under voltage lockout.

JW5068C is available in QFN3×3-20 package, which provide a compact solution with minimal external components.

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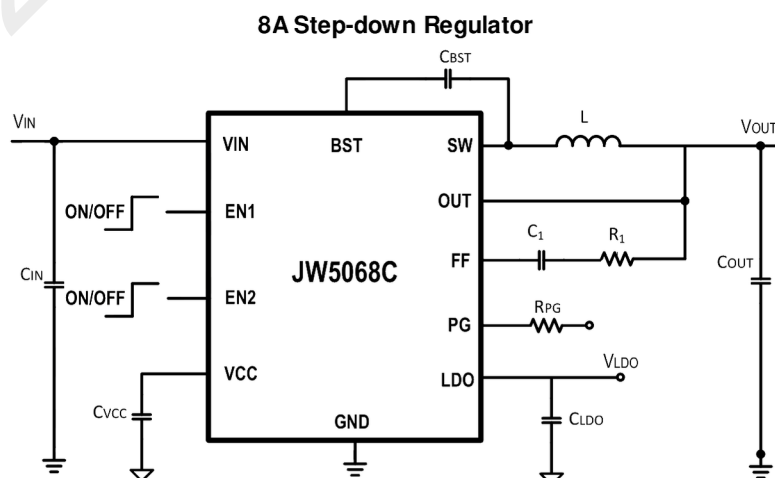
FEATURES

- 5.5V to 23V operating input range
- 8A output current
- Up to 95% efficiency
- High efficiency at light load
- 600kHz frequency
- Input under voltage lockout
- Power good indicator
- Output discharge function
- Output Over/Under Voltage Protection
- Output short protection
- Thermal protection
- Available in QFN3X3-20 package

APPLICATIONS

- Industrial and commercial low power system
- Computer peripherals
- LDO monitors and TVs
- Green Electronics/ Appliances

TYPICAL APPLICATION



ORDER INFORMATION

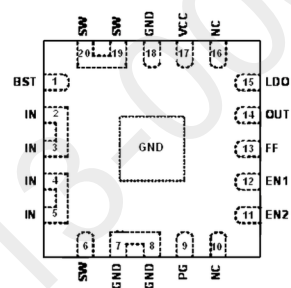
DEVICE ¹⁾	PACKAGE	TOP MARKING ²⁾
JW5068CQFN#TRPBF	QFN3X3-20	JW5068C YW□□□□□

Notes:

- 1) JW□□□□#TRPBF
- JW□□□□: Product code
 - #TRPBF: PB Free, Tape and Reel (If "TR" is not shown, it means tube)
 - Part No.
- 2) Line1: JW□□□□□
- JW□□□□□: Product code
 - Joulwatt LOGO
- Line2: YW□□□□□
- YW□□□□□: Lot number
 - Week code
 - Year code

PIN CONFIGURATION

TOP VIEW



PIN DESCRIPTION

Pin	Name	Description
1	BST	Connect a 0.1uF capacitor between BST and SW pin to supply current for the top switch driver.
2,3,4,5	VIN	Input voltage pin. VIN supplies power to the IC. Connect a 5.5V to 23V supply to VIN and bypass VIN to GND with a suitably large capacitor to eliminate noise on the input to the IC.
6,19,20	SW	SW is the switching node that supplies power to the output. Connect the output LC filter from SW to the output load.
7,8,18,EP	GND	Ground pin
9	PG	Power good monitor output. Open drain output when the output voltage is within 93% to 120% of regulation point.
11	EN2	Enable control of the IC and internal LDO. Pull this pin high to turn on the IC and internal LDO. Do not leave this pin floating.
10, 16	NC	
12	EN1	Enable control of the DC-DC regulator. Pull this pin high to turn on the regulator. Do not leave this pin floating
13	FF	Output feed forward pin. Connect RC network from the output to this pin.
14	OUT	Output pin. Connect to the output of DC-DC regulator. The pin also provide the bypass input for 5V LDO.
15	LDO	5V LDO Output. Decouple this pin to ground with at least 4.7uF ceramic capacitor.
17	VCC	Internal 5V LDO Output. Power supply for internal analog circuits and driving circuit. Decouple this pin to ground with a 2.2uF ceramic capacitor.

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