

DESCRIPTION

The JW[®]5079A is a monolithic buck switching regulator based on I² architecture for fast transient response. Operating with an input range of 4V~23V, JW5079A delivers 10A 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.

JW5079A guarantees robustness with output short protection, thermal protection, current run-away protection, and input under voltage lockout.

JW5079A is available in QFN3×3-20 package, which provide a compact solution with minimal external components.

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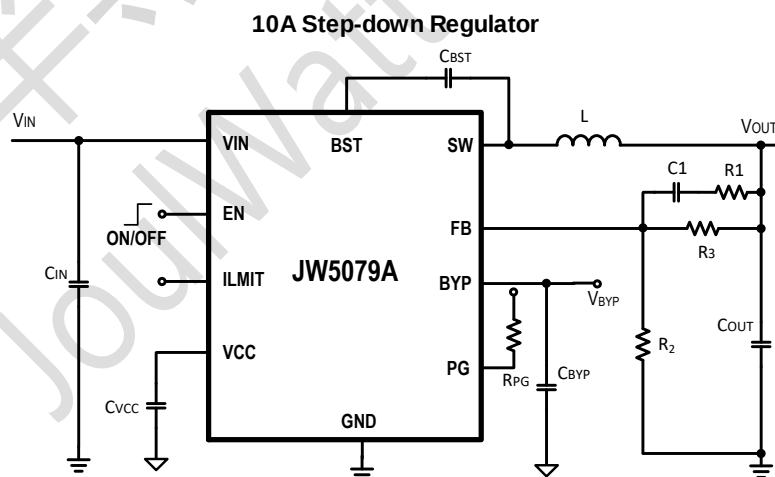
FEATURES

- 4V to 23V operating input range
- 10A continuous
- Up to 95% efficiency
- High efficiency at light load
- 500kHz switching frequency
- External bypass input
- Programmable valley current limit
- Power good indicator
- Input under voltage lockout
- Output discharge function
- Output over voltage latch off protection
- Output short protection
- Thermal protection
- Available in QFN3X3-20 package

APPLICATIONS

- Industrial and commercial low power system
- Notebook
- LDO monitors and TVs
- Green electronics/appliances

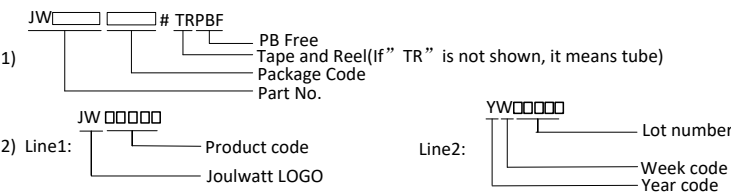
TYPICAL APPLICATION



ORDER INFORMATION

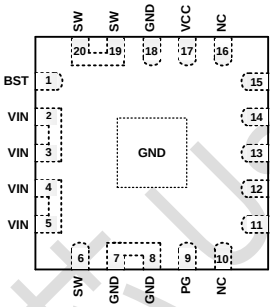
DEVICE ¹⁾	PACKAGE	TOP MARKING ²⁾
JW5079AQFNF#TRPBF	QFN3X3-20	JW5079A YW□□□□□

Notes:



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 4V 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. This is an open-drain output so a resistor should be connected at this pin to the VCC pin.
11	EN	Enable Control. Pull this pin high to turn on the Buck. Do not leave this pin floating.
10,12,16	NC	
13	ILMT	Current Limit Setting Pin. The current limit is set to 10A, 13A or 17A when this pin is pull low, floating or pull high respectively.
14	FB	Output feedback pin. FB senses the output voltage and is regulated by the control loop to 0.6V. Connect a resistive divider at FB.
15	BYP	Bypass input for the internal LDO. BYP is externally connected to the output of switching regulator. When the BYP voltage rises above the bypass switch turn-on threshold, the power supply of the internal LDO regulator changes to the external source.
17	VCC	5V Linear Regulator Output for Internal Control Circuit. A capacitor (typical 2.2uF) should be connected to GND. Don't connect to external Load.

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